

**Oracle® Hyperion Enterprise Performance  
Management System  
Hyperion Reporting and Analysis Framework**

**User's Guide**

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Reporting and Analysis Framework User's Guide, 11.1.2.1

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# 1

# Using Reporting and Analysis Framework

## In This Chapter

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Content that relates to Oracle's Hyperion Reporting and Analysis Framework includes Reporting and Analysis Framework Services, Oracle's Hyperion® Interactive Reporting Services, Oracle's Hyperion® SQR® Production Reporting Services, Oracle's Hyperion® Impact Management Services, Search Services, Oracle's Hyperion® Shared Services, Workspace Pages, and Explore.

## Using Data Source Elements for Reporting and Analysis

Data sources (generic data storage mechanisms) can be multidimensional databases, relational databases, or files. Database connections are portable files stored in the repository. They define the terms, conditions, and methods for connecting to data sources. In Oracle Enterprise Performance Management Workspace, Fusion Edition, you cannot create or modify database connections; rather, you must use the applicable Oracle's Hyperion Reporting and Analysis product. You see only database connections that you own and to which you are granted permissions. Multiple permissions are needed to read, write, edit, and change database-connection file properties. For permission descriptions, see the *Oracle Enterprise Performance Management Workspace Administrator's Guide*.

Database servers typically use server, application, and database names to create unique identifiers. Such identifiers make database references not readily portable. The studios use database aliases instead of long identifiers. Aliases are easier to remember and more economical to employ and enable a database to be maintained on multiple servers.

Repository documents are dependent on a database-connection file to query data sources for values. A document can use only one database connection but can use any of several data sources.

For a complete list of supported data sources and relational databases by Reporting and Analysis product, see *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

- Different data sources have different system requirements. See the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide* for descriptions of system requirements.
- The View pane displays specific information for the document currently open in the content area. For example, the database connection used by the current data object. The View pane displays two database connection segments for Oracle's Hyperion® Web Analysis:
  - The Database segment displays the database connection name for the current data object.
  - The Database User Name segment displays the user name by which access to the database connection was granted.

## Web Analysis Studio

Oracle's Hyperion® Web Analysis Studio users can construct seamless liaisons between OLAP data and relational data sources. Navigation from OLAP to relational data is typically called relational drill-through.

After relational drill-through is configured, users can navigate to level 0 (the bottom) of the OLAP database and drill down to relational data. Relational drill-through, a client-based integration solution, is comparable to the server-based Analytic Integration Services drill-through.

Relational drill-through supports an array of JDBC relational data sources but does not support queries by level, generation, or previously selected member. Relational drill-through definitions are saved as a property of the database-connection file.

## Reporting Studio

For Oracle Hyperion Financial Reporting Studio, Fusion Edition, you must be defined as a user, with a user name and password, in the data source that your document uses. For example, if you want to view documents that use Oracle Essbase, you must logon to the database connections with a user account defined in Essbase. Logging on usually occurs automatically. However, if you are not registered in the database, you are prompted for logon credentials.

## Interactive Reporting Studio

Interactive Reporting documents can contain multiple Query sections, each of which can access a range of data sources (relational databases, OLAP servers, imported data sets, and local joins). Each section can reference zero (if using only local joins) or one database-connection file. The file can reference only one data source. When a query section associated with a relational-database connection or using only local joins is processed, a corresponding Results section is produced. If the database-connection file is associated with a multidimensional database connection, results are shown in the Query section.



## Production Reporting Studio

With Oracle's Hyperion® SQR® Production Reporting Studio, users can easily develop a range of reports, from small ad hoc reports to mission-critical operational reports. Various data sources can be used; for example, relational databases, OLAP servers, and transactional systems.

After you create a data source connection, you can use the Production Reporting Studio wizard, layout editor, and explorers to design and customize enterprise reports. You can also insert and update database tables to incorporate data transformations into report processing.

Whether you are creating budgets, building exception reports, producing invoices from millions of records, or distributing Web-based reports to help end-users make quick, effective decisions, Production Reporting manages the secure delivery of content across the enterprise.

## Essbase Features Available to the Studios

Essbase integrates data from multiple sources, meets user needs across an enterprise, adds value to previously inaccessible data, and transforms data into actionable information.

Essbase features available to studios:

- Data restriction
- Top and bottom only retrieval
- Data edits
- Suppression of rows that contain #MISSING values, zero values, and shared members
- Label mode and alias tables
- Drill settings specific to Essbase
- Linked reporting objects
- Relational drill-through
- Analytic Integration Services drill-through
- Advanced member selection
- Attribute dimensions and attribute calculations

## Financial Management Features Available to the Studios

Oracle Hyperion Financial Management, Fusion Edition is a centralized, scalable, financial management and reporting solution. Financial Management features that are extended through EPM Workspace:

- Organization by period
- Advanced member selection specific to Financial Management
- Cell text, related content
- Line item, detail-related content
- Advanced member selection

- User-defined fields
- Entity currency display

## Planning Details as a Database Connection

After you install the Planning Details ADM driver, you can choose Planning Details as a database connection for Oracle Hyperion Financial Reporting, Fusion Edition Studio. The Planning Details ADM driver is optimized as a data source to provide Oracle Hyperion Planning, Fusion Edition features such as supporting details, planning unit annotations, and metadata filtering. If your report grid does not use Planning features, for optimal performance, choose Essbase as the database connection. See the *Oracle Hyperion Financial Reporting Studio User's Guide*.

## SAP BW Data Sources

You can use the studios to access SAP BW data sources. Using the custom-report, free-form grid component, you can present OLAP, relational, and manually entered data on a data object and leverage all data sources in integrated dynamic calculations. The studios offer visually compelling SAP BW reports that satisfy the presentation, reporting and distribution requirements of information consumers.

## SAP BW Features

SAP BW features:

- BEx Query Variables
- Period-to-date values
- Top and bottom retrieval
- Attributes (member properties)
- Searches for SAP BW characteristic values
- Currency conversion
- Unit of measure conversion
- Unicode

## SAP BW Prerequisites

To access an SAP BW data source, install the SAP BW client on the server. After installation, define SAP Logon parameters used to communicate with the SAP data source.

**Note:** For information on accessing SAP JCO data sources and authenticating users against an SAP server, see *Configuring SAP Data Source Access and Authentication* in the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

## SAP BW InfoProviders Supported by Reporting and Analysis

- InfoCubes/Remote InfoCubes
- ODS objects
- InfoSets
- BEx query cubes
- Multiproviders

**Note:** Using the SAP BW BAPI driver, you cannot issue MDX queries on cubes that have more than 50 characteristics. You can, however, have up to 255 characteristics in an SAP InfoCube.

## SAP Variable Support

In this section:

- [“SAP Variable Support” on page 19](#)
- [“Variables and Processing Types” on page 19](#)
- [“Variable Options” on page 20](#)

### About SAP Variables

SAP variables are query parameters defined in the BEx Query designer. They function as a store for characteristic values, hierarchies, hierarchy nodes, texts, and formula elements.

SAP variables are displayed in a Variable dialog box when creating a new Web Analysis, Production Reporting, or Financial Reporting document, opening a Web Analysis, Production Reporting, or Financial Reporting document, or explicitly selecting to refresh the variables from the shortcut menu in the Content pane. SAP variables are displayed only if the database connection is created against a BEx query with variables defined.

Users are prompted for variable values only if the variable was created in the original BEx query with Ready for Input selected. For variables that do not have Ready for Input selected, the default variable values are applied to the Web Analysis, Production Reporting, or Financial Reporting document upon creation.

### Variables and Processing Types

In order to run a variable, it must be associated with a processing type, which identifies the way the variable is processed.

**Table 1** Variable and Processing Type Combinations

Processing Type	Characteristic Values	Hierarchies	Hierarchy Nodes	Formula
	<b>Variable Type</b>			
<b>Manual Entry/Default Value</b>	X	X	X	X
<b>Customer Exit</b>	X	X	X	X
<b>SAP Exit</b>	X		X	X
<b>Authorization</b>	X		X	
<b>Replacement Path</b>	X			X

**Table 2** Variable Descriptions

Variable/Processing Type	Description
<b>Characteristic</b>	Most common type of variable. Most common processing type is manual/default with ready for input setting. Allows characteristic value to be selected at query run time. Authorization processing type—looks to the end-users' authorization settings as defined with transaction RSMM and uses the value found there as input for the variable.
<b>Hierarchy</b>	Behaves in same manner as characteristic variables. Represents an entire hierarchy tree for a given characteristic. Allow the query user to select new hierarchies versus simply selecting a different node within the same hierarchy.
<b>Hierarchy Node</b>	Behaves in same manner as characteristic variables. Represents a given substructure within a hierarchy.
<b>Formula</b>	Query parameters set in the query definition and not filled with values (processed) until the query is inserted into a workbook. Formula variables function as a store for individual formula elements.

**Table 3** Processing Type Descriptions

Variable/Processing Type	Description
<b>Manual Entry/Default Value</b>	Variables processed with this processing type allow you to manually enter a value before inserting the query into the workbook. When you create the variables, you determine whether to enter a default value using the default value data.
<b>Customer Exit</b>	ABAP code that may be written by SAP customer to fill a variable.
<b>SAP Exit</b>	ABAP code written by SAP to fill a variable value.
<b>Authorization</b>	Indicates that variable value is stored with user authorization.

## Variable Options

There are five options for each variable type (with the exception of Hierarchies variables with all processing types and any variable type with the Replacement Path processing type) that determine the way values are selected for each variable. In the BEx variable dialog box, they are listed under **Variable Represents**. Values for each of these options are supported in the Variable dialog box.

**Table 4** Variable Options

Option Name	Variable Represents
<b>Single Value</b>	One value only.
<b>Multiple Single Values</b>	Number of single values. Useful in hierarchy nodes, for example, to allow you to enter several single nodes.
<b>Interval</b>	From and to value, that is, an interval.
<b>Selection Option</b>	Any combination of single values and intervals.
<b>Precalculated Value Set</b>	Set of values that are staged persistently in a database table by the Reporting Agent.

There are three additional options for each variable type that determine whether a value is required for the variable. In the BEx Variable dialog box, they are listed under **Variable Value Is**.

**Table 5** Options for Variable Value Is

Variable Value Is Option	Description
<b>Optional</b>	Variable does not need a value during runtime.
<b>Mandatory</b>	At least one value must be entered for the variable during runtime: <ul style="list-style-type: none"> <li>● Initial value (#) is permitted explicitly</li> <li>● Initial value # means “unassigned”, that is, you cause it to explicitly select all data that has no booked values for this characteristic</li> </ul>
<b>Mandatory, Initial Value Not Allowed</b>	At least one value must be entered for the variable during runtime; Initial value (#) is not permitted (that is, you must enter one or more concrete values in order to execute the query).

**Note:** Variable Value Is can be modified after creating a variable in BEx, but Variable Represents can be set only at variable creation time.

## SAP Attribute Support

Supported SAP attributes include:

- **Display attributes**—Users can select, search, filter, and include Display Attributes as part of queries and reports.
- **Navigation Attributes**—Navigation attributes are selected from the field catalog like characteristics, and are used for navigation in Web Analysis, Production Reporting, and Financial Reporting documents. They can also be passed on to Web Analysis, Production Reporting, and Financial Reporting as selection criteria.

## SAP Security Integration

SAP BW provides single sign-on login for Web Analysis, Production Reporting, and Financial Reporting users integrating with SAP. For detailed information, see the section titled “Working

with an SAP Provider” in the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.

## Relational Access Methods

Some documents, such as Web Analysis documents, can access OLAP, Oracle, and supported relational databases.

Methods for accessing relational data from Web Analysis:

- Custom document SQL spreadsheet
- Custom document free-form grid
- Relational drill-through
- Relational database connection
- Analytic Integration Services drill-through
- Repository

## Controlling the Size of the Query Result Set

Query governors vary for relational access methods. Custom document SQL spreadsheets and relational drill-through methods enable users to declare query governors as they create SQL queries or relational drill-through definitions.

When you drill from OLAP to relational data, passing only the drilled OLAP dimension member to the relational data source may result in a large query result set. To reduce and simplify the query result set, you can pass the page and filter dimensions specified in the OLAP document.

In Interactive Reporting documents, Query section properties can govern the number of rows returned from relational data sources and impose time limits on queries. Users can cancel queries through the keyboard in some cases.

## Personalizing Reporting and Analysis Framework

You can be notified when documents are changed, use EPM Workspace favorites, Workspace pages, and personal pages to personalize the process of organizing, accessing, and viewing documents. See [Chapter 4, “Viewing and Organizing Information.”](#)

## Subscribing to Documents

When documents are changed or updated, subscribing users can be informed:

- By e-mail notifications with attached files
- By bookmarked personal pages
- By images that represent bookmarks

For information on Subscribe, see [Chapter 4, “Viewing and Organizing Information.”](#)

## Working with Favorites

Favorites provide quick access to frequently used items and documents. With appropriate access permissions, you can add items (push items) to other users’ favorites.

## Using Workspace Pages

Workspace Pages enable users to create, edit, and aggregate content from Oracle (Reporting and Analysis and Application products) and non-Oracle sources (URL and Office documents), into a single environment. Templates are provided for users to create a Workspace page. There are two types of Workspace Pages, My Workspace pages and Shared Workspace pages. My Workspace pages can be stored in any folder that the user has access to. There is a favorites like implementation for Workspace Pages that creates shortcuts to the My Workspace Pages that can be stored in any folder. Shared Workspace pages are stored in a system folder that authorized users can access from Explore. Users that have access to this folder can move their personal pages manually within Explore to promote them to the rest of the organization. See [“Workspace Pages” on page 100](#) for additional information.

## Using Personal Pages

Personal pages provide a way to view frequently used information. You can have multiple personal pages and choose a default personal page, which is displayed when you open Personal Pages from Favorites. You can customize personal page content and layout, create personal pages, and copy and customize imported personal pages.

Personal page features:

- **Broadcast Messages**—A link to a folder, the contents of which are set up and managed by the administrator. Folder contents are displayed as one or more content window, and displayed to every user. The Broadcast Messages folder contains two sub-folders:
  - Personal Page Content—Published personal pages
  - Sample Personal Page—Content set up by the administrator and content added by subscription
- **My Bookmarks**—Links to Web pages or repository items that open as new tabs in EPM Workspace.
- **Image bookmarks**—Graphic links to Web pages or repository items.
- **HTML file or job output displayed as a file content window**—EPM Workspace HTML items and URLs
- **Exceptions Dashboard-Traffic light indicators**—If the traffic light is red, the item is flagged as an exception or the job generated an exception. If the traffic light is green, the job did not generate an exception.

- **Displayable Interactive Reporting sections**—Sections from Interactive Reporting documents and job output that you can access.

For details on the following tasks, see [Chapter 4, “Viewing and Organizing Information”](#):





- Adding personal page contents
- Modifying personal page layout
- Changing personal page colors
- Displaying HTML content on personal pages
- Creating bookmarks
- Using exception notifications
- Embedding Interactive Reporting document sections in personal pages

## Reporting and Analysis Framework Toolbars

Reporting and Analysis Framework Toolbars are used for common Reporting and Analysis Framework features. These are displayed prior to opening any item from the Navigate menu. The toolbars for Reporting and Analysis Framework include Production Reporting, Oracle's Hyperion® Interactive Reporting Web Client, Scheduler, and Explore.

The Reporting and Analysis Framework Standard Toolbar is used for common Reporting and Analysis Framework features. These are displayed prior to opening any item from the Navigate menu.

**Table 6** Standard Toolbar Buttons

Button	Menu Command	Description
	File, then New, then Document	Create documents, such as Financial Reporting books and batches, Web Analysis documents, Interactive Reporting document, and Workspace Pages
	File, then Open, then Document	Open repository documents
	NA	Displays the default startup option for content area
	NA	Open Explore, to display the repository as a file management system

## Production Reporting Toolbar

When viewing Production Reporting documents in EPM Workspace, no buttons are displayed in the toolbar area except for navigation buttons. Navigate among HTML-report pages and viewing reports in multiple output formats. The navigation buttons are dynamic, based on job output. For button descriptions, see [Chapter 6, “Using Production Reporting Documents.”](#)










## Interactive Reporting Toolbar

The Interactive Reporting toolbar displays standard buttons and buttons specific to it. For button descriptions, see [Chapter 5, “Interactive Reporting”](#).

## Explore Toolbar

The Explore toolbar displays standard buttons and buttons specific to it.

**Table 7** Explore Toolbar Buttons

Button	Menu Command	Description
	File, then New Folder	Creates folders
	NA	Navigates up to the repository location that contains the current folder
	Edit, then Cut	Marks repository files to be moved
	Edit, then Copy	Marks repository files to be duplicated
	File, then Properties	Open the Properties dialog box, used to set file properties; for example, file permissions
	Edit, then Paste	Pastes files to the current repository location
	View, then Refresh	Updates EPM Workspace with changes to scheduled batches

## Administer and Impact Manager Toolbars

The Administer and Impact Manager toolbars enable you to manage EPM Workspace properties, performance, and user interaction. For button descriptions, see the *Oracle Enterprise Performance Management Workspace Administrator’s Guide*.

## Schedule Toolbar

Schedule module toolbars enable you to perform the following tasks:

- Run and schedule job types:
  - Interactive Reporting job—An Interactive Reporting document imported into EPM Workspace as a job and its associated files.
  - Production Reporting job—A Production Reporting report or program and its associated files. A Production Reporting job can be secure or nonsecure.

- Generic job—A report or program from another software provider (for example, an Oracle report or a Crystal report), and any associated files.
- Run and schedule batches, which are collections of reports.

## Favorites Menu

Use the Favorites menu to set up personal pages and favorites and to select from a list of favorite documents. This menu is only displayed if you have installed Reporting and Analysis Framework.

**Table 8** Favorites Menu

Command	Description
<b>Manage Favorites</b>	Opens the Favorites Manager dialog box
<b>Show Subscribed Items</b> <b>Manage Personal Pages</b>	Documents to which you are subscribed and manage personal pages
<b>Available application products</b>	Displays in alphabetical order a list of favorite documents or folders defined by you or pushed to you; for example, Oracle Hyperion Performance Scorecard, Fusion Edition.
<b>My Personal Page</b>	Opens your personal page

## Shortcut Menu Commands

Shortcut menu commands are displayed by right-clicking an item in Explore. Option availability depends on the content of the current window and the module from which the menu is accessed.

**Table 9** Shortcut Menu: Explore

Explore - Right Click Menu	
Menu Command	Description
<b>Go Up A Level</b>	Display the contents of the parent folder
<b>New Folder</b>	Add folders to the repository
<b>Open</b>	Select, open, and use repository documents
<b>Open In, then HTML Preview</b> <b>PDF Preview</b>	View documents in browsers as HTML or PDF
<b>Import,</b> <b>then File,</b> <b>then URL,</b> <b>then File as Job,</b> <b>then Financial Reports,</b> <b>Microsoft Reports</b>	Open the Import to Repository dialog box, used to import reports, books, snapshot reports and books, Microsoft reports, report objects (grid, text, image, and chart) and row and column templates into the repository

<b>Explore - Right Click Menu</b>	
<b>Menu Command</b>	<b>Description</b>
<b>Expand</b>	From the View pane, display sub-folders under selected folder
<b>Collapse</b>	From the View pane, collapse selected folder
<b>Export</b>	Open the Export dialog box, used to export saved reports, snapshot reports and books, and report objects (grids, text, image, and chart) from the repository
<b>E-mail Link</b>	Display the E-mail Editor dialog box, used to indicate recipient names and e-mail message subjects. E-mail Links Editor creates hyperlinks to files so recipients can view the files in Web browsers. Only Financial Reporting users can view hyperlinked files.
<b>Cut</b>	Remove repository items and place copies on the clipboard
<b>Copy</b>	Copy a repository item
<b>Paste</b>	Place cut and copied items in reports
<b>Delete</b>	Remove files from the repository upon confirmation
<b>Delete with Outputs</b>	For Interactive Reporting documents, delete items with job outputs, if there are outputs
<b>Rename</b>	Changes name of file or folders
<b>Properties</b>	Display scheduled batch detail; for example, the time for which a batch is scheduled
<b>Run Job</b>	For Interactive Reporting jobs, set job parameters and run jobs
<b>Subscribe</b>	Inform subscribing users of document changes
<b>Create Shortcut</b>	Create document shortcuts, for example, create shortcuts to Interactive Reporting, PDF, and HTML documents
<b>Retrieve</b>	Download and save an Interactive Reporting document
<b>Schedule Job</b>	Schedule Interactive Reporting Job
<b>Add to Favorites</b>	Add files to the favorites list
<b>Refresh</b>	Refresh the repository to include new folders and files
<b>Edit Permissions</b>	Change or update access rights for an artifact
<b>Apply Permissions to Children</b>	Select the access rights to apply for all children objects of a folder. <b>Note:</b> The only objects updated are the ones you have Full Control permission.

# Setting Preferences

## About Reporting and Analysis Framework Preferences

Web Analysis, Financial Reporting, Production Reporting, Interactive Reporting, Performance Scorecard, Financial Management, Planning, Oracle Business Intelligence Enterprise Edition, and Oracle BI Publisher preferences are accessed from the Preferences dialog box:

- Web Analysis preferences is organized on three tabs. These options specify the active preference file, set default leading and trailing data value formatting, numeric formatting, and database connection parameters for Web Analysis documents. See *Hyperion Web Analysis Workspace User's Guide*.
  - Financial Reporting includes options for how you want to preview documents, POV settings, export options, and formatting options, preferences for designing reports, the language to use, units of measure and guidelines document layouts. See *Oracle Hyperion Financial Reporting, Workspace User's Guide*
  - “[Setting Preferences for Production Reporting](#)” on page 31 include scanning folders for Production Reporting Jobs.
  - “[Setting Preferences for Interactive Reporting](#)” on page 32 include options for setting locale defaults based upon the country of origin, date and time formatting, and number formatting.
  - Oracle Business Intelligence Publisher includes options for UI language, report locale, SVG supports in HTML, report time zone, and setting password. See *Oracle Enterprise Performance Management Workspace User's Guide*.
  - Oracle Business Intelligence Enterprise Edition includes viewing general account information, preferences for default dashboard, locale, and language, time zone, delivery options, and so on. See *Oracle Enterprise Performance Management Workspace User's Guide*.
- To display the Preferences dialog box, select **File**, and then **Preferences**.

## Setting Authentication Preferences

Set Authentication Preferences for Interactive Reporting and Production Reporting authentication using Pass-Through.

**Note:** To enable this functionality, contact your System Administrator.

- To set Authentication preferences:
- 1 **Select File then Preferences, and click Authentication.**
  - 2 **In User Name, enter the user name you want to use for Pass-Through.**
  - 3 **In Password, enter the password you want to use for Pass-Through.**

- 4 In **Confirm Password**, re-enter your password to confirm.
- 5 Click **OK**.

## Setting Explore Preferences

Set Explore preferences to define default folders and default permissions for items that you create or import. You can specify default permissions for specific users, groups, or roles. If you do not set these preferences, the Default folder and New Document folder are set to the top-most, or root folder and permissions for items are set to Empty.

You can modify the following Explore Preferences:

- **Default Folder**—Your default folder is shown when you use Explore. Set it to the folder you access most frequently.
- **New Document Folder**—The New document folder is the default folder where the new document wizard searches for Web Analysis database connection files and Interactive Reporting documents. If you are creating new Interactive Reporting documents and browse for data sources this folder is used.
- **Default File Permissions**—Default file permissions are applied when you create a folder or import artifacts. Default file permissions determine:
  - The ability of a user, group, or role to access the item.
  - Whether to automatically push the item to the user, group, or role favorites.

**Note:** These default permissions are automatically applied to all artifacts you create or import. You can override these defaults by manually changing the permissions when you create or import the artifact.

► To set default folders:

- 1 Select **File**, then **Preferences**, and then select **Explore**.
- 2 Set the **Default folder** and **New Document folder**.
- 3 Click **Select**, and do one of the following steps:

- From **Look in**, select a folder.
- From the list of names:
  - Select a folder
  - To navigate, double-click a folder

The folder you select is displayed in the **Name** text box.

**Tip:** Do not type a name in the **Name** text box.

- 4 From **Default File Permissions**, select one of the following:
  - Interactive Reporting documents
  - Interactive Reporting jobs

- Production Reporting jobs
- Generic jobs
- All other documents
- Folders

5 Click **OK** or **Cancel**.

6 To continue setting default permissions, repeat [step 3](#).

➤ Set default permissions:

Select **Set Permissions** to set default permissions for users, groups, and roles. The Permissions dialog is displayed. See [“Setting Permissions and Pushing Artifacts” on page 66](#).

## Formatting Preferences

The following preferences can be set for all reports created from EPM Workspace:

- [“Default Formatting Preferences” on page 30](#)
- [“User Preferences and Formatting Options” on page 31](#)

### Default Formatting Preferences

Default Formatting preferences specify default data formatting for all subsequently created reports. Options are organized by their ability to amend, format, or replace data returned from the data source.

**Table 10** Default Formatting Preferences

Formatting Options	Description
<b>Leading and Trailing Formatting</b>	
Currency Symbol	Inserts the following currency formatting symbols into the Positive Prefix and Negative Prefix text boxes: Dollar (\$), Cents (¢), Pound (£), Euro(E), Deutschmark (DM), Franc (F), and Yen (¥).
Positive Prefix	Enters character to precede positive numeric values.
Positive Suffix	Enters character to follow positive numeric values.
Negative Prefix	Enters character to precede negative numeric values. <b>Warning:</b> The minus sign (-) is the default prefix. Deleting the default prefix without replacing it causes negative values to display positively.
Negative Suffix	Enters character to follow negative numeric values.
<b>Numeric Formatting</b>	
Grouped Thousands Check Box	Displays numeric digits as grouped by thousands.
Minimum Decimals	Indicates the minimum number of decimal places to display.
Maximum Decimals	Indicates the maximum number of decimal places to display.

Formatting Options	Description
Scale	Enables abbreviated values by tens, hundreds, thousands, ten-thousands, hundred-thousands, millions, and billions.
Use Negative Color Check Box	Indicates that negative numbers are signified by a selected color.
Select Negative Color	Enables you to select the color representing negative values.
<b>Samples</b>	
Update Samples	Updates the samples panel based on the most recent formatting selections.
Replace Missing With	Replaces missing values with either a text string or zero. <ul style="list-style-type: none"> <li>● Zero</li> <li>● Text</li> </ul>

## User Preferences and Formatting Options

There are identical formatting options and user preferences. User preferences are global settings applied to new documents. User Preferences can be overridden by database connection formatting and document-based formatting.

Order of Formatting Precedence:

1. Options saved with documents
2. Options saved with the database connection
3. Options specified in the User Preferences dialog box

Spreadsheet user preferences and chart user preferences are identical to spreadsheet options and chart properties. They are only applied to subsequently created documents.

## Setting Preferences for Production Reporting

► To set preferences for Production Reporting:

- 1 **Select File, then Preferences, and then Production Reporting.**
- 2 **Do one of the following:**
  - Select **All Folders** to scan folders listed in Explore.
  - Select the **Selected Folders** option to search folders listed in the Folder window.
- 3 **Use the Add and Remove buttons to add and delete folders from the Folder window.**

Selecting **Add** opens a Select dialog from which you can select the folders to add to your search. To remove a folder from the Folder window, select the folder and click **Remove**.

- 4 **Select OK.**

## Setting Preferences for Interactive Reporting

► To set preferences for Interactive Reporting:

- 1 **Select File, then Preferences, and then Interactive Reporting.**
- 2 **Select the country from the locale drop-down menu for the local for which you are setting the defaults.**  
The locale selected sets the locale or country associated with the default format that you want to use. The locale that you select determines the available number, date, and currency formats
- 3 **Select a format for the date, timestamp, time, and month from each of the drop-down menus.**  
Date sets the default date format, timestamp sets the default time and date format, time sets the default time format, and month sets the default month format for the month used in Add Date Groups.
- 4 **Select a format for the real number, integer, and null option from each of the drop-down menus. Null sets the default format for null values.**  
Null values are empty values for which no data exists. Null values are not equal to zero. Real sets the default format for real values and integer sets the default format for integer values.
- 5 **Select OK.**

### Default Open Interactive Reporting Format

The Default Open Format drop-down on the Interactive Reporting Preferences window enables you to set the default program to open Interactive Reporting documents when you select open from the menus. The default program can be set to HTML or Interactive Reporting Web Client. If the Interactive Reporting document is opened as HTML, the document is displayed in HTML format in the Content pane. In Interactive Reporting Web Client format, the document is opened in a special application file placed in a Web browser's plug-in directory.

► To select the default program:

- 1 **Select File, then Preferences, and then Interactive Reporting.**
- 2 **Select the default program to open the document from the Default Open Format drop-down and click OK.**

### Formatting

You can change the way numbers, currency values, and dates are displayed, or you can create new custom formats. Use the Numbers tab of the Default Fonts and Styles dialog box to specify default settings for number formats.



**Table 11** Default Number Formats

Field	Description
<b>Select a Formatting Locale</b>	Locale or country associated with the default format to use. The locale determines the available number, date, and currency formats.
<b>Date</b>	Default date format.
<b>Timestamp</b>	Default time and date format for the timestamp. The timestamp is a set of characters in sequential order which show the date and time on which an event occurred. This information is used for tracking events.
<b>Time</b>	Default time format.
<b>Month (For “Add Date Groups”)</b>	Default month format for the month used in Add Date Groups.
<b>Real Number</b>	Default format for real values.
<b>Integer</b>	Default format for integer values.
<b>Null</b>	Default format for null values. Null values are empty values for which no data exists. Null values are not equal to zero.

## Personalizing EPM Workspace for Reporting and Analysis Framework Products

When using EPM Workspace, perform customization tasks to change the user interface appearance. Use the View menu or user preferences for customization.

**Note:** User interface settings made with the View menu override default settings defined in the General Preferences tab and remain in effect until you log off. For more information on General Preferences, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

**Table 12** Customization Tasks for Workspace Modules and Menu Commands

Customization Task	Modules	Menu Bar Command
Show/hide View pane	All modules	View, then View Pane
Show/hide Masthead	All modules	View, then View Masthead
Resize View pane and content area or Masthead	All modules	See <a href="#">“Resizing the View Pane and Content Area” on page 34</a> or <a href="#">“Resizing the Masthead” on page 34</a>
Which file types are listed in the content area	Explore	View, then Display Items of Type. See <a href="#">“Showing Specific File Types” on page 35</a>
Whether to show hidden files in the content area	Explore	View, then Show Hidden

Customization Task	Modules	Menu Bar Command
Which item properties are displayed in the content area	Explore	View, then Show Columns. See <a href="#">“Displaying Columns” on page 34</a>
Sort items in the content area	Explore	See <a href="#">“Sorting Items” on page 35</a>

## Resizing the Masthead

➤ To resize the masthead:

- 1 Drag the mouse and point to the header border between the View pane and content area and the masthead.

Point to the Masthead Area Adjuster which is displayed as a faint double line in the border.

- 2 When the pointer changes to a horizontal double-headed arrow, drag the border up or down.

## Resizing the View Pane and Content Area

➤ To resize the View pane and content area:

- 1 Drag the mouse and point to the column border between the View pane and the content area.

Point to the View Pane/Content Area Adjuster which is displayed as a faint double line in the border.

- 2 When the pointer changes to a horizontal double-headed arrow, drag the border to the right or left.

## Displaying Columns

From Explore, items and properties display in the columns within the content area. The setting you make for the columns are retained after you log-off.

➤ To hide or display columns:

- 1 Select **View**, and then **Show Columns**.
- 2 Display or hide columns by setting or clearing its check-box.

For example, select the check box for Size to display as a column in the content area.

- 3 To specify the column width, click a column check box, and enter the new column width in pixels.

You cannot specify the column width for exceptions, priority, or versions.

- 4 Click **Save**.

➤ To reorder columns, do one of the following steps:

- Click a column, use  and  arrows.
- Select **View**, and then **Show Columns**.

- From the content area, drag and drop the columns.
- To resize column widths:
  - 1 Drag the mouse and point to a column border in the column header.
  - 2 When the pointer changes into a horizontal double-headed arrow, drag the border to the right or left.

## Sorting Items

From Explore, alphabetically sort by items in the columns within the content area. Sort using any column heading. Date columns are sorted chronologically.

- To sort a column, click the column heading, then do one of the following:
  - To sort items in ascending order, click the icon next to the column heading to point up.
  - To sort items in descending order, click the icon next to the column heading to point down.

## Showing Specific File Types

From Explore, you can specify which file types to display in the content area.

**Note:** Your role and permissions also determine if an item is displayed.

- To display specific file types:
  - 1 Select **View**, then **Display Items of Type**, and select an option:
    - **All Files**—Displays all files in Explore
    - **Select from a list of file type groups**—See [step 2](#).
    - **Hyperion or Standard**—Displays either Hyperion type files or standard files, see [“Standard Files” on page 37](#).
    - **Other**—Select a particular file from the dialog box displayed.
  - 2 **Optional:** For the list of file type groups, you can select only one file type group from the list.

**Table 13** File Type Groups

Option	Description
<b>All Jobs (and Output)</b>	Displays all jobs and all job output.
<b>All Jobs</b>	Displays all jobs. This includes all items imported as a job.
<b>All Job Output</b>	Displays all job output produced from running a job.
<b>External Links</b>	Displays all items imported as a URL.
<b>All Office Files</b>	Displays Microsoft Word, Excel, Power Point, and Project files. It also displays files with the file extensions .mht, .mhtml, or .nws.

Option	Description
<b>All Reports</b>	Displays: <ul style="list-style-type: none"> <li>● Production Reporting documents</li> <li>● Interactive Reporting documents</li> <li>● Web Analysis documents</li> <li>● Financial Reporting reports, snapshot reports, books, snapshot books and batches</li> </ul>
<b>All Financial Reporting Objects</b>	Displays all Financial Reporting reports, snapshot reports, books, snapshot books and batches.
<b>All Connections</b>	Displays all database connection files: <ul style="list-style-type: none"> <li>● Interactive Reporting database connection</li> <li>● Web Analysis (Essbase) database connection</li> <li>● Web Analysis Financial Management database connection</li> <li>● Web Analysis Relational database connection</li> <li>● Web Analysis SAP Info Cube database connection</li> <li>● Web Analysis SAP Multiprovider database connection</li> <li>● Web Analysis SAP InfoSet database connection</li> <li>● Web Analysis SAP ODS database connection</li> <li>● Web Analysis SAP Query Cube database connection</li> </ul>
<b>All Images</b>	Displays all image files with the following extensions: <ul style="list-style-type: none"> <li>● .gif</li> <li>● .jpeg</li> <li>● .png</li> <li>● .bmp</li> <li>● .tiff</li> <li>● .xbm</li> <li>● .xwb</li> </ul>
<b>Hyperion</b>	Displays the following: <ul style="list-style-type: none"> <li>● Production Reporting documents</li> <li>● Interactive Reporting documents</li> <li>● Web Analysis documents, presentations, database-connection files.</li> <li>● Financial Reporting reports, snapshot reports, books, snapshot books and batches</li> <li>● All jobs</li> <li>● All Job output</li> <li>● All connections</li> <li>● HTML files</li> <li>● SPF security files</li> </ul>

Option	Description
<b>Standard</b>	Displays files with the following extensions: <ul style="list-style-type: none"><li>● .xls</li><li>● .doc</li><li>● .mpp</li><li>● .ppt</li><li>● .pdf</li><li>● .html</li><li>● .txt</li><li>● .xml</li><li>● .zip</li><li>● .rtf</li></ul>
<b>Other</b>	Select one file type to display from the list of file types.

## Standard Files

Standard files include text files, log files, HTML files, and Microsoft Office files. The administrator sets up the types of files that the repository supports. See [Chapter 2, “Exploring and Managing Items.”](#) Open the following standard file types from EPM Workspace:

- .xls
- .doc
- .mpp
- .ppt
- .pdf
- .html
- .txt
- .xml
- .zip
- .rtf



# 2

## Exploring and Managing Items

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## Using Explore

Explore enables you to list and navigate repository contents; manage and control files and folders; and use elements, like the Open dialog box, that present the repository as a file management system. User's roles and the installed Reporting and Analysis modules determine what parts of the user interface are shown — as a result some documents are displayed in the content area and others can also be opened in their own studios. For example, for Interactive Reporting, you can have it set to always open documents in the Interactive Reporting Web Client.

Access privileges or permissions determine which items you can view, modify, run and delete in the repository. See [“Setting Permissions and Pushing Artifacts”](#) on page 66.

## Actions

- Documents, files, and folders can be opened in four formats:
  - Interactive HTML
  - Portable Document Format (PDF), displayed by Adobe Reader

- Text files
- Operation messages, which are generated by applications or services and stored in logs
- Interactive Reporting, Production Reporting, and Financial Reporting users can subscribe to documents. When the documents are changed or updated, the users are informed.
- Interactive Reporting, Production Reporting, and Financial Reporting users must import documents before the documents can be accessed by other users. Importing distributes previously private information for public consumption.

## Locations

User preferences specify default startup options:

- The Content area can be Explore, documents, Workspace Pages, repository locations, or applications such as Performance Scorecard, Financial Management, Planning, Oracle Hyperion Profitability and Cost Management, Fusion Edition, or Oracle Business Intelligence application products. Startup options are loaded and displayed when users log on to EPM Workspace.

**Tip:** Set a folder to the directory which contains the most frequently-accessed content.

- A Favorites folder contains a users most frequently sought repository content. All user profiles feature Favorites folders, the files of which are accessed through the Favorites menu. Favorites Manager can push content to users' Favorites folders, providing one access point for content.

## File Permissions

EPM Workspace file permissions determine who has access to what files or folders and what operations can be performed. You obtain access items as a user, as a group member, or through a role given to you by the system administrator. For information on roles, see the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. The level at which you can access items and perform tasks is called *access privilege*.

Access to specific repository items is controlled by the document owner. Access to operations, such as importing, running jobs, or updating document POV, is controlled through roles. For example, the owner gives you the modify and run access privilege to Job A, but you can run the job only if you have the Job Runner role. The owner gives you the full control access privilege to Document B, so you can open and update the file. For information on setting file permissions, see [File Permissions](#).

**Tip:** When there are equivalent permissions that conflict with each other, the permission that grants lesser access takes precedence.



When you import a file, you become the file owner, and you specify the access level of other users. You might specify that all users can read the file, your group can modify the file, and only you can delete, change access for, and move the file.

## Items

Items are objects stored in the repository, including files, folders, URL's and shortcuts. Items are HTML files, Interactive Reporting database connections, jobs, batches, documents, reports, and presentations.

All items have properties which store information about files such as attributes and access control information. Properties include: type, a description of the file, and search keywords.

Items are categorized into the following:

- “Documents” on page 41
- “Collections” on page 42
- “Supporting Files” on page 42
- “Other Standard Files” on page 44
- “Folders” on page 44

## Documents

Documents are files created using Oracle's Hyperion applications. Documents include Interactive Reporting documents, Financial Reporting reports, snapshots, Web Analysis documents and Production Reporting documents. Documents are listed and viewed using Explore. Items opened from Explore display as tabs at the top of EPM Workspace. The following table describes viewable documents. Documents can contain and generate the following:

- **Dashboard**—Collection of metrics and indicators provide interactive summaries of your business.
- **Report**—Formatted data values and interactive elements. Reports are displayed in tabular, grid, or chart formats.

**Table 14** Document types, descriptions, where created and file extensions

Type	Description	Created in	File Extension
Production Reporting document	Reports querying a relational data source	SQR Production Reporting Studio	.spf
Interactive Reporting document	Formatted, dynamic, document that generates reports or dashboard typically querying a relational data source.	Oracle's Hyperion® Interactive Reporting Studio, Oracle's Hyperion® Dashboard Development Services, and EPM Workspace	.bqy
Web Analysis document	Web Analysisdocument typically querying an OLAP data source.	Web Analysis Studio and EPM Workspace	.ard

Type	Description	Created in	File Extension
Financial Reporting report	Highly formatted reports containing dynamic data from OLAP data sources.	Reporting Studio	.des
Snapshot report	Highly formatted reports containing static data from OLAP queries.	Reporting Studio	.rpt

## Collections

Collections contain references to groups of documents, such as books, presentations, or job output files. Collections are listed and viewed using Explore. Items opened from Explore display as tabs at the top of EPM Workspace.

**Table 15** Collections in the Repository

Type	Description	Created in	File Extension
Job Output	Collection of files resulting from running a job.	EPM Workspace <ul style="list-style-type: none"> <li>● Interactive Reporting job output</li> <li>● Production Reporting job output</li> <li>● Generic job output</li> </ul>	Files are a variety of extensions, such as .pdf, .html, or .txt.
Books	Collection of Reporting Studio documents. Dynamically specify dimension sections and dimension changes for Books.	EPM Workspace	.kbk
Snapshot Books	Generated books containing static data.	EPM Workspace	.kbt
Batches	Collection of executable Reporting Studio documents and books with special properties and are executed to generate reports.	EPM Workspace	.bch
Presentation	Collections of Web Analysis documents.	Web Analysis Studio	.apt

## Supporting Files

The following tables lists EPM Workspace supporting files used when authoring or managing documents or collections.

**Table 16** Workspace supported file types, descriptions, studio created in, and file extensions

Type	Description	Studio created in	File Extension
Job	Items with special properties that execute to generate output. Jobs contain Interactive Reporting documents. Production Reporting documents or generic documents.	<ul style="list-style-type: none"> <li>● Interactive Reporting—Created with EPM Workspace by importing Interactive Reporting documents.</li> <li>● Production Reporting—Created with EPM Workspace by importing Production Reporting program files (*.sqr).</li> <li>● Generic—Created with EPM Workspace by importing Oracle reports or batch files. Generic reports use a command line interface.</li> </ul>	<ul style="list-style-type: none"> <li>● Interactive Reporting jobs do not have file extensions.</li> <li>● Production Reporting jobs have .sqr file extensions.</li> <li>● Generic jobs can have a variety of file extensions, such as .sh, .bat.</li> </ul>
Interactive Reporting database connection	Portable files defining terms, conditions, and methods for connecting to data sources.	Interactive Reporting Studio	.oce
SQR Production Reporting Studio files used by a Production Reporting document or Production Reporting job.	Files that Production Reporting program references when executed: <ul style="list-style-type: none"> <li>● Include files (#include commands)</li> <li>● Input data files (Open for-reading commands)</li> <li>● Image files (print-image and declare-image commands)</li> </ul>	SQR Production Reporting Studio	File extensions include .cvs, .img, or .inc.
Folder	Containers that contains other folders and files.	not applicable	none
Shortcut	Pointer to a repository item. Creates shortcuts when you want an item to display in folder A, though it is stored in folder B.	not applicable	none
URL	Link to Web sites or HTML pages.	not applicable	none
Grid	Reporting Studio object containing data from external sources. Grids contain rows, columns, and optionally, a page axis.	Reporting Studio	.rog
Chart	Reporting Studio object containing charts.	Reporting Studio	.roc
Image	Reporting Studio image object.	Reporting Studio	.roi
Text	Reporting Studio text object.	Reporting Studio	.rot
Row and Column Template	Templates used to author Financial Reporting reports.	Oracle Hyperion Financial Reporting Studio, Fusion Edition	.ros

Type	Description	Studio created in	File Extension
<ul style="list-style-type: none"> <li>● Web Analysis Essbase database connection</li> <li>● Web Analysis Financial Management database connection</li> <li>● Web Analysis Relational database connection</li> <li>● Web Analysis SAP Info Cube database connection</li> <li>● Web Analysis SAP Multiprovider database connection</li> <li>● Web Analysis SAP InfoSet database connection</li> <li>● Web Analysis SAP ODS database connection</li> <li>● Web Analysis SAP Query Cube database connection</li> </ul>	Portable files that defines the terms, conditions and methods for connecting to data sources for Web Analysis documents.	Web Analysis Studio	.adc

## Other Standard Files

Other standard files include text files, log files, and Microsoft Office files. The administrator sets the types of files that the repository supports. See [“Registering a File Type” on page 51](#).

## Folders

*Folders* exist with the repository and are arranged in a hierarchical structure. Folders are used for organization, they can contain subfolders and items such as jobs, documents, and URLs. The *root* folder contains all files and folders.

## Basics of Explore

Use Explore to list, find or view content. Items opened in Explore display as tabs at the top of EPM Workspace. The View pane displays folders.

When items have high priority, multiple versions, or is manually flagged as an exception, an icon is displayed. In order to see these icons the priority, version, or exception column must be displayed.

### ► Folder Contents:

- Sub-folders in the left pane; click the plus button next to the folder name.
- Folders in the left pane and items in the content area; double-click the folder.


- Contents in the content area; click an item.

**Note:** When entering names for items in the repository such as files and folders, you can use upper and lowercase letters and numbers. Spaces cannot be used at the beginning or end of folder names. Invalid Name characters are as follows: \,/,%,?+,<,>,|,`,\*,". Invalid Path characters are as follows: \,%,?+,<,>,|,`,\*,".

**Note:** Since importing Financial Reporting objects with invalid characters in their Names/Path is still allowed, those objects once imported in EPM Workspace, should be renamed. Scheduled Batches containing object names with invalid characters will fail when PDF and HTML are selected as output options.

## Viewing Priorities, Exceptions, and Versions


When an item is listed in Explore, an icon displays indicating priorities, exceptions, or multiple versions. You can view and set the following conditions:

-  **Priority**—High or low priority.

**Table 17** Priorities


File Type	Description
<b>All items that have versions</b>	Use version properties to set an item's priority to Normal or High. Only available if your administrator activated the priority feature.

**Note:** Priorities for scheduled jobs differ from an item's priority. Set priorities on schedules you associate with jobs. Priority is a property of schedule. If multiple job are scheduled to run simultaneously, the high priority job is run first. The priority icon is not displayed next to the job. See [“Scheduling Jobs” on page 235](#).

-  **Exceptions**—Indicator of conditions or results such as a threshold being reached. Notify subscribing users when an exception has been generated and monitor exceptions on the Exceptions dashboard on your Personal Pages.

**Table 18** Exceptions

File Type	Exceptions
<b>Items with versions</b>	Manually flag an exception on an item. See <a href="#">“Version Properties” on page 77</a> .
<b>Production Reporting jobs</b> <b>Interactive Reporting jobs</b> <b>Generic jobs</b>	Programmatically enable jobs to generate exceptions. The exception icon is not displayed next to the job. See <a href="#">“Using Exceptions” on page 93</a> .

-  **Versions**—Indicates an item has multiple versions. See [“Working with Versions” on page 75](#).

► To display the priority, versions or exceptions column:

- 1 Select **View**, and then **Show Columns**.
- 2 Click **Priority, Version, or Exception**.

## Managing Files

This section describes the following tasks associated with managing files and folders in the repository.

- [“Opening or Selecting Files or Folders” on page 46](#)
- [“Saving Files” on page 47](#)
- [“Creating Folders” on page 48](#)
- [“Creating Documents or Collections” on page 48](#)
- [“Moving or Copying Files or Folders” on page 48](#)
- [“Renaming Files or Folders” on page 49](#)
- [“Deleting Files or Folders” on page 49](#)
- [“Searching for Files or Folders” on page 49](#)

## Opening or Selecting Files or Folders

After opening files or folders, its contents display in the content area. Items have multiple versions. Imported files are collections containing a single version. You can later save or import additional versions. Versions can be revisions of the same file or completely different files. See also [“Saving Files” on page 47](#).

► To open files using the shortcut menu:

- 1 From the content area of **Explore**, right-click a file.
- 2 From the shortcut menu, select **Open In**
- 3 Select a format:
  - For Financial Reporting items, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*.
  - For Interactive Reporting items, see [“Selecting an Interactive Reporting Data Source” on page 113](#).
  - For Web Analysis items, see *Hyperion Web Analysis Workspace User's Guide*.
  - For Production Reporting items, see [“Viewing a Production Reporting Document” on page 229](#).
  - For generic files, select an option to open the file in a Web browser.

➤ To open files using default formats:

- 1 From **Explore**, double-click the file or folder.
- 2 To view or interact with the opened item, see [“Using Different File Types” on page 80](#).

➤ To open or select a file or folder:

- 1 Select **File**, then **Open**, and then **Document**.
- 2 Navigate to the file or folder, and perform the following:
  - From the **Name** column, double-click the file or folder to open.
  - From **Look in**, select a folder.
  - To filter the list of items, from the **Type** list box, click the arrow, select the file type.

**Tip:** Click **Go Up A Level** to move up the folder hierarchy specified in the **Look in:** text box.

- 3 Click **Open**.
- 4 **Optional:** To open a file with another application:
  - Click **Options**.
  - From **Open As:** select an application to open the file.

**Note:** Every file type on your local system maintains information about which application will launch that type of file, and where the application resides. See [“Registering a File Type” on page 51](#).

- 5 **Optional:** To open a version of the item, from **Versions list**, select the version, click **Open**.
- 6 To view and interact with the opened item, see [“Using Different File Types” on page 80](#).

## Saving Files

Save files to replace them or save files using a new name, which creates a copy of the file. You can save the following files in EPM Workspace:

- Interactive Reporting document
- Web Analysis document
- Snapshot Book
- Book
- Batch
- Workspace Page

➤ To save a file:

- 1 Open the file.
- 2 Select **File**, and then **Save**.

- 3 To save the file with a new name; **File**, then **Save As**, specify a name and location.

## Creating Folders

Create folders to organize files and documents.

► To create folders:

- 1 From **Explore**, select **File**, then **New**, and then **Folder**.
- 2 Type a name for the folder, select **Save**.

**Note:** When entering names for items in the repository such as files and folders, you can use upper and lowercase letters and numbers. Spaces cannot be used at the beginning or end of folder names. Invalid Name characters are as follows: \,/,%?,+,<,>,|,`,\*,". Invalid Path characters are as follows: \,%,?+,<,>,|,`,\*,".

## Creating Documents or Collections

You can create the following documents or collections:

- Interactive Reporting, see [“Using the Interactive Reporting Toolbars” on page 108](#)
- Web Analysis, see *Hyperion Web Analysis Workspace User's Guide*.
- Book or Snapshot book, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- Batch, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- Job, see [“Importing Files as Jobs” on page 64](#)


## Moving or Copying Files or Folders

You can move or copy a file or folder to another location. The following applies to copying:

- Copying of all document types in the EPM Workspace repository is supported with the exception of Production Reporting job output files. A user must have a minimum of View access.
- The user that copies the repository object becomes the owner
- Multiple documents can be selected for copy and paste
- All metadata associated with a document is copied except for Job parameters and Schedules
- Folders and its contents can be copied except for objects within a folder that have No Access permission
- Hidden files are copied if a user has View access
- Copying of nested folders is not allowed



► To move or copy files or folders:

- 1 Select  **Explore**, then the file or folder you want to move or copy.
- 2 Select **Edit**, and then **Cut** or **Copy**.
- 3 Select the folder where you want to copy or move the item.
- 4 Select **Edit**, and then **Paste**.

**Tip:** To select consecutive files or folders to copy or move, select the first item, press and hold down SHIFT, and select the last item. To select files or folders that are not consecutive, hold down CTRL, and select each item.

## Renaming Files or Folders

Rename files or folders by changing properties.

► To rename files or folders:

- 1 Select **Explore**.
- 2 Select **Edit**, and then **Rename**.

**Note:** When entering names for items in the repository such as files and folders, you can use upper and lowercase letters and numbers. Spaces cannot be used at the beginning or end of folder names. Invalid Name characters are as follows: \,/,%,? ,+,<,>,|,`,\*,". Invalid Path characters are as follows: \,%,? ,+,<,>,|,`,\*,".

- 3 Click **OK**.

## Deleting Files or Folders

► To delete files or folders:

- 1 Select **Navigate**, and then **Explore**.
- 2 Select **Edit**, and then **Delete**.

---

**Caution!** Deleted files cannot be restored.

---

## Searching for Files or Folders

Search Services enables users to search for and retrieve documents, reports, and dashboards from any repository in EPM Workspace. The search operation returns a list of results based on locating the users keywords in document-specific metadata; for example, document name, date created or owner (for Financial Reporting Word or PDF documents only), and extracting content-based

information from documents. For more information, see the *Oracle Hyperion Reporting and Analysis Framework Administrator's Guide*.

## Linking to Web Analysis Studio

You can open Web Analysis Studio from EPM Workspace. Oracle's Hyperion® Web Analysis Studio enables you to access and create documents and presentations.

- ▶ Link to Web Analysis Studio by selecting **Tools**, and then **Links**. For more information, see the *Hyperion Web Analysis Workspace User's Guide*.

## Creating E-mail Links to Items

E-mail links to items in the repository. Link rules:

- Recipients must be defined as a user with a EPM Workspace user name and password to open the linked item in a Web browser.
- Recipients need proper access privileges to view the item.
- Items in the link can be viewed in Web browsers. A link to the item is sent not the item. When you click on the link, EPM Workspace is opened and the item is displayed.
- You cannot send an e-mail link to a folder.
- You must select and send e-mail links one item at a time.
- You can add text to the e-mail message.

- ▶ To create e-mail links:

- 1 From the repository, select the item to e-mail.

**Tip:** If the e-mail link option does not display for an item, that item cannot be sent as an e-mail link.

- 2 Select **File**, and then **E-mail Link**.

The **Email Link** dialog box, containing the URL links is displayed.

If your default e-mail address is not specified, you are prompted to request from the Administrator to update your e-mail address listed through Oracle's Hyperion® Shared Services. Your e-mail address is used as the sender for the e-mail link.

- 3 Perform one of the following tasks:

- Enter the recipient's e-mail address.
- Use the Recipient List, see [Using the E-mail Recipient List](#).

- 4 **Optional:** Update the Subject text associated with the e-mail message.



- 5 Click **Send**.

**Note:** You cannot recall a message after it is sent.

## Using the E-mail Recipient List

Use the e-mail recipient list to organize a list of recipients to which you send e-mail links. By entering addresses in this list you do not need to retype e-mail address again. Two e-mail recipient lists are maintained; one to e-mail links, one to e-mail batch notifications.

► To use the e-mail recipient list:

- 1 Select **File**, and then **Email Links**.
- 2 Click **Select** to display **Email Link**, and select recipients.
- 3 **Optional:** To add a recipient, in **New Recipient**, type the e-mail address and click .
- 4 **Optional:** To remove an e-mail from the **selected recipient** list, select an e-mail and click .

## Using Ambiguous Items

It is possible for different items to have the same name and reside in the same folder. These are ambiguous items. When an ambiguous item is accessed, a list of items with the same name are displayed. Select the item you want to use. This may happen when you perform the following:

- Create e-mail links to an ambiguous item.
- Prompted to select related content links that link to an ambiguous item.

► To select ambiguous items:

- 1 From the list, select the item you want.
- 2 To determine the differences between the items, do the following:
  - To view the item properties, right-click the item, select **Properties**.
  - To open and view the item, see [“Opening or Selecting Files or Folders”](#) on page 46.

## Registering a File Type

The server maintains information about Repository items and which application to launch to open that type of file and where the application resides.

Administrators create file types (technically, new MIME Types) or add file extensions to file types. You may be informed of the new type by your administrator, or you may discover it while browsing or trying to open a file. If there is a file type that your browser cannot open, you are prompted for a program to open it. To avoid that prompt, you need to register the type in your browser or operating system.

The procedure to register new file extensions or MIME types varies with each operating system, its version, your browser, and the browser's version. Consult the documentation or on-line help of the browser or operating system or ask your system administrator.

## Exporting Items

From Explore, only Financial Reporting items have an export option. Export items for the following usages:

- Locations outside of EPM Workspace. You can import items into a Studio or back into EPM Workspace later. Financial Reporting items can export from testing environments to production environments.
- For use in Smart View, see [“Exporting to Smart View for Office” on page 52](#).

➤ To export items:

- 1 Select **Navigate**, and then **Explore**.
- 2 Select **File**, and then **Export**.
- 3 Navigate to items:
  - From the **Look in:** list box, select a folder.
  - To filter the list of items, from the **Type** list, select the file type.
- 4 Select the items, click **OK**.
- 5 Click **Save**.
- 6 Navigate to the location where you want to save the exported file.
- 7 Click **Save**.

## Exporting to Smart View for Office

This section describes Oracle Hyperion Smart View for Office, Fusion Edition functionality, concepts and procedures. Smart View provides a common Microsoft Office interface for the following EPM Workspace components:

- Financial Reporting, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- Production Reporting, [“Exporting Production Reporting Content to Microsoft Excel” on page 59](#)
- Web Analysis, see *Hyperion Web Analysis Workspace User's Guide*
- Interactive Reporting, Interactive Reporting does not enable Smart View export options

It also provides a common Microsoft Office interface for Essbase, Financial Management and Planning.

The centralized interface enables simultaneous use of multiple Hyperion products and improves integration with Microsoft Office. The Smart View implementation provides the following EPM Workspace functionality:

**Note:** Review the Oracle Hyperion Enterprise Performance Management System Certification Matrix for information on system requirements. You can find it at [http://www.oracle.com/technology/software/products/ias/files/fusion\\_certification.html](http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html) (under Business Intelligence).

- Exports the current page of the current data object to Excel, Word, or PowerPoint
- Exposes Financial Management and Essbase functions in Excel, Word, and PowerPoint content
- Notifies you when you can upgrade to new releases of Smart View

## About Hyperion Reporting and Analysis Smart View Export Options

Smart View enables the following export options:

- You can export the current page of the current data object to Word, PowerPoint or Excel as an image. After insertion, you can re-query the corresponding Web application to refresh the image.

You can export documents to Microsoft Excel as either query-ready HTML or formatted HTML:

- When you export content as query-ready HTML, the current page of the current data object is converted to HTML and Hyperion-specific formatting is removed. This enables Smart View to re-query the data source independent of the Web application.
- When you export content as Formatted HTML, the current page of the current data object is converted to HTML with the Hyperion formatting definitions and calculated members. This specific formatting content prevents Smart View from directly querying the data source, but enables Hyperion content to be leveraged by Office applications.

Not all export options are supported by all data sources and Web applications. The following table indicates export options to Smart View:

**Table 19** Smart View Export Options

Web Applications	Export Image to Microsoft Word, and PowerPoint	Export Formatted HTML to Excel	Export Query-ready HTML to Excel
Essbase	Yes	Yes	Yes
Financial Management	Yes	Yes	Yes
Planning	Yes	Yes	Yes *

Web Applications	Export Image to Microsoft Word, and PowerPoint	Export Formatted HTML to Excel	Export Query-ready HTML to Excel
Financial Reporting	Yes	Yes	Yes
Interactive Reporting	N/A	N/A	N/A
Production Reporting	N/A	Yes	N/A
Web Analysis	Yes	Yes	Yes

**Note:** To export Hyperion Planning data sources in query ready format, you must use the Essbase provider.

**Note:** Exporting charts from Production Reporting is not supported in this release.

Because Excel worksheets prevent users from entering data into read-only cells, some Excel functions such as AutoSum, F9, and some formatting functions are disabled in Smart View. Also note that you must have Microsoft Excel, Word, and PowerPoint installed on the computer running the Hyperion Reporting and Analysis client.

## Importing Reporting and Analysis Content

Using Smart View, you can import Financial Reporting through EPM Workspace. You can use smart tags to import Reporting and Analysis content. For information on importing content and using smart tags, see the *Oracle Hyperion Smart View for Office User's Guide*.

### Importing Reporting and Analysis Content for Financial Reporting

Based on the type of Financial Reporting report you select for importing, you may be requested to respond to prompts other than the default or log on to data source. The report may contain default User POVs, Grid POVs or Page members that you can change or allow for expansion. For additional information on these topics listed below, see the *Oracle Hyperion Financial Reporting, Workspace User's Guide*:

- Responding to prompts
- User POV
- Grid POV
- Page members
- Expansion.
- Changing a data source

- To import Financial Reporting documents, in the Preview screen, select your options:
  - Select **All Pages** to import all pages for members listed in the **Page** drop-down; deselect **All Pages** to import only the current page listed in the **Page** drop-down.
  - For Microsoft Excel only, select **Split Pages across worksheets** to place each member page you selected in the **Page** drop-down on separate worksheet tabs; clear **Split Pages across worksheets** to place all member pages you selected in the **Page** drop-down on the same worksheet.
  - Option for Excel only. To revert to the EPM Workspace Point of View, select **Refresh Using Workspace Point of View**.
  - In the **Import Document As** drop down, select one of the following:
    - **Fully-Formatted** — For Microsoft Excel only. Select to display a fully formatted report in HTML.
    - **Query-Ready** — For Microsoft Excel only. Select to run an ad hoc analysis on a report using Financial Management or Analytical Services data sources. Query-Ready is not supported for Snapshot reports.
    - **Image** — For Microsoft Word or PowerPoint only. Select to import the report as an image.

Click **Finish** to import the report in your Microsoft Office application.

## Importing Reporting and Analysis Content for Interactive Reporting

Interactive Reporting document sections can be imported into your Microsoft Office application easily. Seamless options are available to retrieve and import the latest data from the database, or to use the displayed data in the section for import. The Import Workspace Document wizard for aInteractive Reporting document consists of the following dialogs. Depending on how the document was designed, the database credentials and filter steps of the dialog may not appear.

- Select a Document
- Select an Action
- Specify Database Credentials
- Specify Filters
- Preview

## Selecting a Document for Interactive Reporting

This step of the wizard requires that you select the page(s) to import from a section.

- To import an Interactive Reporting document section:
  - 1 In **Select Document**, select **Refresh and Preview** and click **Next**. **Preview** is displayed. **Refresh** retrieves the latest data from the database. To import only the displayed data in the section, select **Preview**. Paging options are identical in **Refresh** and **Preview**.

## 2 In **Preview**, select an option:

- Select **All Pages** to import all pages listed in the **Page** drop-down.
- If you are importing all pages listed for use in Microsoft Excel only, you can optionally select **Split Pages across worksheet** to assign each page to a worksheet.
- To import a specific page, select the page from the **Page** drop-down, and clear the **All Pages** option.

## 3 Click **Finish**.

If the Interactive Reporting document requires a user name and password, or a variable filter value, click *Next*.

## Specifying Database Credentials for Interactive Reporting

This step of the wizard requires that you enter your database credentials to access a document.

► To specify database credentials:

- 1 Enter your user name in the **Username** field.
- 2 Enter your password in the **Password** field.
- 3 Click **Finish**.

If the Interactive Reporting document requires a user a variable filter value, click *Next*.

## Specifying Filters for Interactive Reporting

If a variable filter has been set for the query by the designer of the Interactive Reporting document, the filter selections must be resolved before the query is refreshed and sections can be imported. At that time, the user is prompted to select or enter filter values and complete the constraint. Two methods of applying variable filters are available: Show Values and Custom Values.

The Show Values method retrieves all potential values associated with the items from the database. This allows you to consider and select from the actual range of values when selecting a filter. This type of filter is useful when setting filters accurately without being familiar with the contents of the database. Because Show Values retrieves every unique value available, it is best not to use this feature when the data item is large, consists mostly of unique values, or does not change frequently (for example, telephone numbers). In the situation, Custom Values are recommended when you want to avoid extra calls to the database.

The Custom Values method retrieves a list of potential values saved with the filter or read from a file. This method enables you to select values from a pre-defined pool. One reason to use custom lists with a distributed document is that many data items change very rarely. For example, a Gender item has three consistent values (male, female, and unknown). A Product line item has many more items, but may only change every year or so. Under these circumstances, it makes sense for you to select from a custom values list, rather than continuously querying to show



database values. The initial custom values shown in the values pane originate and are saved with the document

➤ To specify a variable filter using the Show Values method:

- 1 Select **Show Values** from the **Values** dropdown.
- 2 Select **Include Nulls** to allow null values to pass the filter and appear in the data set.
- 3 Expand the (Comparison Operator) dropdown and select a comparison operator for the filter. Values which meet the comparison test are included in the edit pane.
- 4 Check **Not** to reverse the operator selected in step 3.
- 5 Select the values that you want to include in the filter definition by highlighting them in the edit pane. Use the left mouse button to select the values you wish to include. The value will be highlighted. The [Ctrl] and [Shift] keys can be used to select multiple values.
- 6 Click **Apply**.

➤ To specify a variable filter using the Custom Values method:

- 1 Select **Custom Values** from the **Values** dropdown. A list of custom values associated with the variable filter are displayed in the edit pane.
- 2 Select **Include Nulls** to allow null values to pass the filter and appear in the data set.
- 3 Expand the (Comparison Operator) dropdown and select a comparison operator for the filter. Values which meet the comparison test are included in the edit pane.
- 4 Check **Not** to reverse the operator selected in step 3.
- 5 Select the values that you want to include in the filter definition by highlighting them in the edit pane. Use the left mouse button to select the values to include. The value will be highlighted. The [Ctrl] and [Shift] keys can be used to select multiple values.
- 6 Click **Apply**.

## Importing Reporting and Analysis Content for Web Analysis

Using Smart View, you can import Web Analysis documents into Microsoft Excel, Word and PowerPoint. Web Analysis has five data object display types, but Smart View can import only three types (spreadsheet, chart, and pinboard). Smart View cannot import Freeform Grid and SQL spreadsheets.

➤ To import Web Analysis documents:

1. In **Specify Database Credentials**:
  - Enter a **Username** and **Password** for each data source.
  - Select **Skip** to omit the credential to any of the data sources

**Note:** If a report has only one data source and you skip entering credentials, the report is not imported. If your report has data objects with different data sources and you only want to import one of the data objects, you can enter the credential for the data object you want to import and skip credentials for the data objects you do not wish to import.

- Select **Save Credential** to save credentials with a Web Analysis object.
2. Click **Next**.
  3. In **Preview — Import Document As:**
    - For Excel, select **Fully-Formatted** to import a fully formatted HTML of the report, or **Query-Ready** to run ad hoc analysis on reports when connected to Financial Management and Essbase data sources.
    - For Word and PowerPoint, select **Image** to import the Reporting and Analysis document as image objects.
  4. If the data object has multiple Pages, select a page to import (combo box in top left) or select **All Pages** to import all pages of the document. Leave the box cleared to import only the current page.
  5. For Microsoft Excel, Word or PowerPoint, select **Split pages across worksheets** to display each page on a separate worksheet. For **Query-Ready**, when **All Pages** is selected, the pages are split across worksheets.
  6. In **Preview—All Report Objects** for Microsoft Excel, Word and PowerPoint
    - Select **Split pages across worksheets** to display each page on a separate worksheet instead of one worksheet.
    - Select **All Objects** to import all objects of the report.
    - Select **Split objects across worksheets** to display each object on a separate worksheet.
  7. In **Preview—All Reports** for Microsoft Word and PowerPoint: select **Import Screen** to import a screen print of the entire report.
  8. Click **Finish**.

## Importing Reporting and Analysis Content for Production Reporting

➤ To import a Production Reporting job:

- 1 In **Select a Document**, expand the repository and select the job to import.
- 2 In **Specify Parameters**, define the job parameters.

The parameters displayed depend on the job selected. Possible parameters include:

- **Define job parameters starting with**—Select the desired starting point from which to define job parameters. (The values that appear are the values defined in the import job process.)
- **Set values**—Select desired values for job parameters.

- **Save as my default**—Select to save the job parameters as public or private, and enter a job parameter name. Select to save the job parameters as the default parameters for the job.
- **Save**—

**3 In Preview, preview the job output and select display options.**

- **Page**—For multiple-page jobs, use the browse buttons to select a page to preview.
- **All Pages**—Select to import all pages. Clear to import only the current page.
- **Split pages across worksheets**—Excel only: Select to place pages on separate worksheet tabs. Clear to place all pages on the same worksheet.
- **Split pages across pages**—Word only. Disabled for Production Reporting jobs.
- **Split pages across slides**—PowerPoint only. Disabled for Production Reporting jobs.

**4 Click Finish to import the job into your Microsoft Office application.**

## Installing Smart View From EPM Workspace

Smart View is installed with Hyperion Reporting and Analysis but to use Smart View you must also separately install a client component. This Office client component is displayed as a Hyperion menu and toolbar within the Microsoft Office suite.

**Note:** Before installing Smart View, exit the Interactive Web Client and Microsoft Office applications, and enable pop-ups.

➤ To install the Smart View client from EPM Workspace:

**1 Select Tools , then Install, and then Smart View.**

The Hyperion Smart View installation wizard is launched.

**2 Accept the default installation options.**

By default, the installation wizard installs Smart View program files to C:\Hyperion\SmartView. You can specify an alternative installation directory.

**3 Reopen the Microsoft Office application.**

**Note:** If Word fails to display the Hyperion menu, create a data source connection in Excel then restart Word.

## Exporting Production Reporting Content to Microsoft Excel

➤ To export content to Microsoft Excel as Fully-Formatted HTML:

**1 Select Navigate , then Explore and choose File, then Import, and then File as job.**

**2 Click Browse and select an SQR job.**

- 3 Proceed through the pages in the wizard. When you get to the last page, select **Excel (.xls)** as the output option.
- 4 Look in the Table of Contents for the Excel output.

# 3

# Importing Artifacts

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## Importing

Importing artifacts to the repository makes them available to others. You might give users the ability to modify one artifact, while limiting others. See “[Setting Permissions](#)” on page 66 for detailed information on permissions.

**Note:** If you try to import an artifact whose MIME type is not defined, you get an error message. Contact your administrator to create the MIME type.

[Table 20](#) shows the Reporting and Analysis products and artifacts you can import:

**Table 20** Reporting and Analysis Products and Associated Artifacts

Reporting and Analysis Product	Description
Financial Reporting	<ul style="list-style-type: none"> <li>● Dynamic report (*.des)</li> <li>● Snapshot reports (*.rpt)</li> <li>● Books (*.kbk)</li> <li>● Snapshot Books (*.kbt)</li> <li>● Batch files (*.bch)</li> <li>● Supporting files, see “<a href="#">Supporting Files</a>” on page 42</li> </ul> <p><b>Note:</b> To import these files, you must use the <b>Import, then Financial Reports</b> menu item.</p>
Production Reporting	<ul style="list-style-type: none"> <li>● Documents to view (*.spf)</li> <li>● Program files to run as jobs (*.sqr)</li> <li>● Supporting files, see “<a href="#">Supporting Files</a>” on page 42</li> </ul>

Reporting and Analysis Product	Description
Interactive Reporting	<ul style="list-style-type: none"> <li>● Documents to view and modify (*.bqy)</li> <li>● Documents to run as jobs (*.bqy)</li> <li>● Supporting files, see <a href="#">“Supporting Files” on page 42</a></li> </ul>
Web Analysis	<ul style="list-style-type: none"> <li>● Documents for interactive analysis (*.arg)</li> <li>● Presentations (*.apt)</li> <li>● Supporting files are automatically imported with the document or presentation, see <a href="#">“Supporting Files” on page 42</a></li> </ul> <p><b>Note:</b> To import these files, you must use the Web Analysis Studio.</p>
Microsoft Reports	A user can browse the Microsoft Report server repository. The user can then import a link to a Microsoft Report as a URL object into EPM Workspace repository. See <a href="#">Importing Microsoft Reports</a> for more information.

## Interactive Reporting Documents and Jobs

Import an Interactive Reporting document as a file to use it with interactive analysis. Import an Interactive Reporting document as a job for scheduled or on-demand execution and distribution of output. The import essentially creates the job.

**Note:** If the Interactive Reporting document you are importing uses row-level security, the row-level security feature is applied when job queries are processed. When users process queries to get more detailed information, their row level security restrictions would be applied at the more detailed levels, such as sales data for their region or department only.

**Table 21** When to Import an Interactive Reporting Job

Function	File	Job
Interactive with EPM Workspace	X	
Schedule automatic execution		X
Distribute output via E-mail		X
Produce multiple-cycle output		X
Distribute output to network directories		X
Import current results for analysis with Interactive Reporting Web Client		X
FTP output		X
Print output		X

## HTML Files

HTML image links and other HTML files are dependent on their folder locations. Ensure the links remain functional after you import them:

- Use relative links in the HTML
- Create folders that mirror the folder structure

## Importing Artifacts

Import from Explore using **File**, then **Import** and these instructions:

- [Importing Files](#)
- [Importing Multiple Files](#)
- [Importing Files as Jobs](#)
- [Importing a URL](#)
- For Financial Reporting, see the *Oracle Hyperion Financial Reporting Workspace User's Guide*
- [Importing Microsoft Reports](#)

## Importing Files

Import files into the repository with the following exceptions:

- For importing Financial Reporting files, see *Oracle Hyperion Financial Reporting Workspace User's Guide*.
- For importing files as jobs, see [“Importing Files as Jobs” on page 64](#).
- For Interactive Reporting .oce files, see [“Setting Processing and Metadata Options” on page 256](#).
- For importing URLs, see [“Importing a URL” on page 65](#).

➤ To import files:

- 1 From **Explore**, navigate to the folder where you want to import the artifact.
- 2 Select **File**, then **Import**, and then **File**.
- 3 Browse to the file you want to import.
- 4 Enter a description, click **Next** or select **Finish** without specifying any Advanced options. If you select **Finish**, skip the following steps.
- 5 Enter properties, see [“Advanced Properties” on page 72](#).
- 6 Complete permissions, , see [“Setting Permissions and Pushing Artifacts” on page 66](#).
- 7 Click **Finish**.

**Note:** To return to a previous pages, click Back.

## Importing Multiple Files

- Files must be imported to the current folder
- Import different file types together, for example, import text files, HTML files and image files.
- You cannot import multiple Interactive Reporting files (\*.bqy, \*.oce) or Production Reporting files (\*.sqr, \*.spf)

► To import multiple files:

- 1 From **Explore**, navigate to the folder in which you want the files to reside.
- 2 Select **File**, then **Import**, and then **File**.
- 3 Click **Multiple Files**.
- 4 Select the files to import.

Browse for the first file. Click >> (right-facing arrows) to add the file to the list. To delete files from the list, select the file and click << (left-facing arrows).

- 5 **Optional:** Enter a description, and click **Finish** to complete the import without specifying any Advanced options.
- 6 Click **Next**.
- 7 Enter properties, See [“General Properties” on page 71](#) and [“Advanced Properties” on page 72](#).
- 8 Click **Finish** to import the artifact.

The artifacts are imported into the current folder.

## Importing Files as Jobs

Import Production Reporting program files (\*.sqr) to create Production Reporting jobs, Interactive Reporting documents (\*.bqy) to create Interactive Reporting jobs or generic files to create generic jobs. Schedule, set options on and execute the job using the Schedule module, see [“Scheduling Jobs” on page 235](#).

► To import files as jobs:

- 1 From **Explore**, navigate to the folder where you want to place the artifact.
- 2 Select **File**, then **Import**, and then **File as Job**.
- 3 Browse to the artifact you want to import, and click **Next**.
- 4 Do one of the following to complete the Import wizard:
  - For Production Reporting files and generic jobs, see [Chapter 9, “Using Production Reporting and Generic Jobs.”](#) This chapter guides you through the steps to complete this wizard.
  - For Interactive Reporting BQY files, see [Chapter 9, “Using Production Reporting and Generic Jobs.”](#)



- 5 To complete step 2 (Job Input/Output) of the Import dialog do the following, for an Interactive Reporting job:
  - For Query properties, see [“Setting Data Source and Query Properties” on page 253](#).
  - For Job properties, see [“Setting Interactive Reporting General Properties and Options” on page 254](#) and [“Setting Interactive Reporting Job Properties” on page 252](#).
  - For Job defaults, see [“Setting Job Defaults” on page 255](#).
- 6 Enter properties, see [“General Properties” on page 71](#) and [“Advanced Properties” on page 72](#). Required properties are marked with a red asterisk.
- 7 Click **Next**.
- 8 Complete the final step in the Import wizard – Permissions, see [“Setting Permissions and Pushing Artifacts” on page 66](#).
- 9 Click **Finish** or **Finish and Schedule**.

## Importing a URL

Perform these steps to import URLs.

► To import URLs:

- 1 From **Explore**, navigate to the folder where you want to place the artifact.
- 2 Select **File**, then **Import**, then **URL**, and enter the URL name.
- 3 **Optional:** Enter a description, and click **Finish** to complete the import without specifying any Advanced options or Permissions.
- 4 Click **Next**, then see [“General Properties” on page 71](#) and [“Advanced Properties” on page 72](#). Required properties are marked with a red asterisk.
- 5 Complete step 3, Permissions. To specify permissions for the artifact, see [step 1](#).
- 6 Click **Finish**.

## Importing Microsoft Reports

EPM Workspace users with a Content Publisher role can import Microsoft reports to the EPM Workspace repository. Browse the Microsoft report server repository and import as a link a Microsoft report to the EPM Workspace repository. The link is in the form of a URL object and any user can launch a Microsoft report URL object as a tab in EPM Workspace. For details on how to setup Microsoft Reports Integration with EPM Workspace, see the *Oracle Hyperion Reporting and Analysis Framework Administrator’s Guide*.

► To import Microsoft reports:

- 1 Select a folder from the EPM Workspace repository.
- 2 Right-click and select **Import** then **Microsoft Reports**.

3 From the **Import Microsoft Reports** dialog, select a **Microsoft Report**.

4 **Select Import.**

A URL object is created in the EPM Workspace repository.

## Setting Permissions

Access permissions define your level of access - view, modify, full control. When you import artifacts, you:

- Specify who gets access and to what level
- Have full control over the artifacts you import, and can change the permission level for all roles, groups, and users
- Efficiently grant permissions through roles or groups rather than to individual users

To modify permissions, use:

- [Setting Permissions and Pushing Artifacts](#)
- [Setting Permissions on Interactive Reporting Documents](#)

## Setting Permissions and Pushing Artifacts

Set artifact permissions when you import or select an artifact. Push artifacts to be accessible to Favorites.

Rules for setting permissions and pushing artifacts:

- To push artifacts, you need proper permissions and a role that enables you to push them. Push any artifact, except multiple-cycle jobs and folders.
- Make artifacts accessible in the repository by changing their permissions
- Make artifacts accessible on Favorites by pushing them to Favorites
- To apply permissions to artifacts within folders, you need proper permission and role.

➤ To edit permissions for files and folders:

1 From **Explore**, right-click the file or folder whose permissions you want to modify.

You can select multiple items in Explore and apply Edit Permissions. Permissions can only be applied to items that a user has Full Control permission.

2 **Select Edit Permissions.**

3 To complete **Apply Permissions to Children** dialog, see [Applying Permissions to Children of the Selected Folder](#).

➤ To apply permissions to artifacts in a folder:

1 **Right-click on a folder in Explore.**

**2 Select Apply Permissions to Children.**

**3 To complete Apply Permissions to Children dialog, see [Chapter 3, “Importing Artifacts.”](#)**

**4 Set permissions for the children of the folder.**

The columns displayed for selected users, groups, and roles in the Apply Permissions to Children dialog depend on the artifact type within the folder. Use the description for each of the permissions as a guideline:

- **Inherit**—Not set to anything. Inherit defaults to No Access.
- **No Access**—Users cannot see the object.
- **View**—View document but cannot modify.
- **Job Output Only**—View and produce output in the folder. No additional Modify capabilities.
- **Modify**—Make changes but not delete.
- **Full Control**—Access the Apply Permissions to Children dialog (add/edit/delete permissions to other users/groups/roles).
- **Run**—Ability to run a job.
- **Modify and Run**—Applicable only to jobs. You can modify the properties of the job and run the job. If you have modify permission only, you can modify the properties of the job but not run the job.
- **View and Process**—View documents and refresh data, cannot modify. These are adaptive states and are applicable only to Interactive Reporting artifacts
- **Analyze**—Create and modify charts, pivots, and reports in the document, but cannot modify the queries or refresh the data. These are adaptive sSates and are applicable only to Interactive Reporting artifacts.
- **Analyze and Process**—Create and modify charts, pivots and reports in the document and refresh data. Cannot modify the query.
- **Query and Analyze**—Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing.
- **Data Model and Analyze**—Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing. Can create and modify data models. These are adaptive states and are applicable only to Interactive Reporting artifacts.

**5 Once you are done making your selections, select OK.**

**Note:** Permissions are only applied to artifacts within a folder in which a user has Full Control permission.

**Example of Inherit Permission**

The following is an example of a BQY file and permissions set in the Permissions dialog.

UserA:

- Inherit for File Permission
- View for Adaptive State
- Inherit for Favorite

GroupA:

- View for File
- Process for Adaptive
- Inherit for Favorite

RoleA:

- Modify for File
- Datamodel for Adaptive
- Pushed for Favorite

Result of above scenario:

- If UserA belongs to GroupA then UserA is able to View the File
- If UserA has RoleA then UserA can Modify the File
- If UserA does not belong to GroupA or RoleA then UserA has NoAccess to the file

Inherit basically means inherit from the role's or group's permissions and the same applies for Favorites.

### Applying Permissions to Children of the Selected Folder

In the dialog, Apply Permissions to Children of the Selected Folder, you can choose to overwrite or merge permissions, thus eliminating the need to redefine permissions from scratch.

**Note:** Permissions change for all files in folder when you click OK. However, permissions are not saved for future use. If a new artifact is subsequently added to that folder, it does not get this permission. However, you can go to individual artifacts in that folder and change the permissions.


➤ To change permissions or push artifacts:

#### 1 Specify selected users, groups, and roles.

- To populate the list with all users, groups or roles leave the text box blank, select **Update List**.
- To populate the list with specified users, groups or roles:
  - To filter the list by name, select **begin with**, **contain**, or **are in group** and enter letters.
  - To filter the list by user type, select tabs for Users, Groups, or Roles, then click **Update List**.

**Available Users, Groups, and Roles** display artifacts based upon the selections you made in the drop-down lists.

**Note:** If all of the artifacts are not listed, filter the list with criteria or contact your administrator. Your administrator determines the maximum number of artifacts to list. Wild cards are not supported and the filter is not case sensitive.

- 2 Select a user, group, or role from Users, Groups, or Roles tab, then click 
- 3 From **Selected Users, Groups and Roles** select a name from the Name column. From **Access or Access to file** drop-down set permissions:

- **Inherit**—Not set to anything. This permission defaults to No Access.
- **No Access**—Cannot access the document.
- **View**—Can only display the document.
- **Modify**—Change, but not delete.
- **Full control**—Display, change, and delete.

See [“Setting Permissions on Interactive Reporting Documents”](#) on page 70.

- 4 From the Favorite drop down, select **Pushed** to push the artifact to the users Favorites or **Inherit** (not pushed) to view only if this is the only permission set.
- 5 Repeat previous steps to set additional permissions for other users, groups, or roles.

**Note:** If all of the users/groups/roles in which you have access to are not listed, filter the list with different criteria or contact your administrator. Your administrator determines the maximum number of users/groups/roles to list.


- 6 Select one of the following:
  - a. To remove existing permissions and set new permissions, select **Overwrite current permissions**.
  - b. To redefine some permissions, and add new permissions to the existing ones, select **Merge with the current permission**. The changes are applied to folder child elements recursively.

**Note:** In a merge, if a user already exists in Apply Permissions to Children for some artifacts, and this user is granted new permissions, the new permissions are in force.

- 7 To apply these permissions for an artifact, click **OK**.
- 8 Do the following:
  - a. For files, if you want permissions to apply to other imported content by default, click **Make these the default permissions for all files I import**.
  - b. For folders, if you want permissions to apply to other imported content by default, click **Make these the default permissions for all folders I create**.

This automatically sets the same permissions for all files and folders you import. You can change permissions for each file or reset your default access permissions.

9 Click **OK**.

**Note:** To remove a role, group, or user from the selected list, click  after highlighting the name to be removed.

## Setting Permissions on Interactive Reporting Documents

These permissions apply to Interactive Reporting files and jobs:

- **Adaptive states** specify what functionality is available to users when viewing an Interactive Reporting document.
- **Only user who ran the job has access to the job output** specifies you are the only user who can access the job output.

**Note:** When importing an Interactive Reporting job, assign an adaptive state on the job output to access it.

**Table 22** Adaptive States and Their Descriptions

Adaptive State	Description
<b>Inherit</b>	Not set to anything. This permission defaults to View Only if this is the only permission set.
<b>View Only</b>	View document, but cannot modify.
<b>View and Process</b>	View documents and refresh data, cannot modify.
<b>Analyze</b>	Create and modify charts, pivots, and reports in the document, but cannot modify the queries or refresh the data.
<b>Analyze and Process</b>	Create and modify charts, pivots and reports in the document and refresh data. Cannot modify the query.
<b>Query and Analyze</b>	Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing.
<b>Data model and Analyze</b>	Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing. Can create and modify data models.

## Creating Shortcuts

Create a shortcut to a file or document.

► To create shortcuts:

- 1 From **Explore**, navigate to an artifact.

- 2 Right-click the artifact, and click **Create Shortcut**.
- 3 Enter the name and folder.
- 4 See [“General Properties” on page 71](#) and [“Advanced Properties” on page 72](#).

## Working with Properties

This section describes how to modify properties of repository artifacts. You specify properties when importing and modifying artifacts. See [“Importing Artifacts” on page 63](#) to learn how to access properties pages while importing artifacts.

Properties for artifacts:

- [“General Properties” on page 71](#)
- [“Advanced Properties” on page 72](#)
- [“Output Properties” on page 73](#)
- [“Setting Permissions” on page 66](#)
- [“Working with Versions” on page 75](#)
- [“Interactive Reporting Properties” on page 74](#)
- [“Production Reporting Properties and Generic Job Properties” on page 74](#)
- [“HTML File Properties” on page 74](#)
- [“URL Properties” on page 74](#)
- [“Interactive Reporting Database Connection Files” on page 75](#)

➤ To access properties:

- 1 From **Explore**, select an artifact.
- 2 Select **File**, and then **Properties**.

## General Properties

Most artifacts have these general properties:

**Table 23** General Properties for Artifacts

General Properties	Definitions
<b>File</b>	File name and path.
<b>Name</b>	Name assigned to the file. For example, if the file is <code>c:\Jan03SR</code> set the name to <code>January 2003 Sales Report</code> . Use letters, numbers, a space, and an underscore (_).  <b>Note:</b> For Production Reporting jobs, select <b>Replace</b> to replace this job with another. Replacing this file may impact existing schedules dependent on this file. Owners of these schedules must be notified of these changes so that they can modify the job parameters accordingly.
<b>Description</b>	Description used to generate search keywords. Limit the length to 250 characters.

General Properties	Definitions
<b>Owner</b>	User Name of the person who imported the artifact. To change owner of an artifact, see <a href="#">“Changing Ownership of Artifacts” on page 72</a> .
<b>Original File Name</b>	(Read-only) Name of the file when it is imported or created.
<b>Size</b>	(Read-only) file size
<b>SmartCut</b>	(Read-only) AURL pointing to a file.
<b>Shortcut To Folder</b>	Folder and subfolders for shortcuts.
<b>Also store file in compressed (.zip) format</b>	Set this when you import to store the file in WinZip format. This saves disk space, but slows down viewing.

## Changing Ownership of Artifacts

Users can change the owner of repository artifacts. Artifacts you can change ownership for include, repository objects, folders (including sub-folders), Events, Job Parameters, and Schedules. A user must have Full Control or Administrator role rights.

► To change the owner of an artifact:

- 1 From **Explore**, select an artifact.
- 2 Select **File**, and then **Properties**.
- 3 From the Properties dialog, select **Change Owner**.
- 4 Perform the following to complete the Change Owner dialog:
  - a. Select how you want to sort the name list by, User ID, First name, or Last name from the first drop down menu.
  - b. To filter by name, select **begin with**, **contain**, or **are in group** and then enter letters.
  - c. Select Update List.
  - d. Select OK.
- 5 Select **OK**.

## Advanced Properties

Some artifacts have these advanced options:

**Table 24** Advanced Properties for Artifacts

Advanced Properties	Definitions
<b>MIME Type</b>	(Read Only) Multipurpose Internet Mail Extensions. Update this for jobs and documents only, MIME types are MS Word file, HTML file, and Personal Page.



Advanced Properties	Definitions
<b>Security Tags Included</b>	(Read only) Indicates whether the Production Reporting job is secure. Secure jobs are Production Reporting only and always have HTML output.
<b>Character Encoding</b>	The character-encoding method, such as UTF-8. This encoding must be specified for HTML files so that EPM Workspace can display the file correctly.  If the character encoding is not specified in this property or in the HTML file, EPM Workspace uses the default encoding of the Application Server's JVM.
<b>Hidden File</b>	Hides files in Explore.  Example: Enable this option for image files needed by an HTML file, so the users select HTML files only.
<b>Auto-delete file on this date or Auto-delete shortcut on this date</b>	Enable to automatically delete this artifact .  from the repository when these conditions are met: <ul style="list-style-type: none"> <li>● The expiration date passed.</li> <li>● Auto-delete is selected.</li> <li>● The system performs regular garbage collection (up to an hour after the expiration date).</li> <li>● For folders, set auto-delete to occur after all contents have been deleted from the folder.</li> </ul>
<b>If Exceptions are generated, allow users to add to their Exceptions Dashboard</b>	The Exceptions dashboard is displayed on a Personal Page.  This field is not used for jobs. When a job exception occurs, subscribed users can be notified by E-mail or with a Exceptions Dashboard indicator.
<b>Automatically generate keywords</b>	Generates search keywords based on words contained in the Name and Description. For Interactive Reporting content, the section names are also used as keywords. The search function uses these keywords to find an artifact.
<b>Keywords</b>	New keywords used to search for an artifact.  Creating keywords for artifacts is highly recommended and used for searching repository artifacts.
<b>Auto Delete job outputs after</b>	Used to delete job output after a specified time interval. The job output is deleted when all of these conditions are met: <ul style="list-style-type: none"> <li>● The expiration date passed.</li> <li>● Auto-delete is checked.</li> <li>● The system performs its regular garbage collection (up to an hour after the expiration date).</li> </ul>

## Output Properties

Output properties option is displayed for Interactive Reporting and Production Reporting jobs. A summary of the job outputs with the respective dates and output formats that the job outputs are available in are displayed when this property is selected for one of these products. You can also delete a selected output from the Output Summary.

## Interactive Reporting Properties

In addition to [General Properties](#) and [Advanced Properties](#), Interactive Reporting files and jobs have unique properties. See “[Setting Interactive Reporting Job Properties](#)” on page 252.

## Production Reporting Properties and Generic Job Properties

In addition to [General Properties](#) and [Advanced Properties](#), Production Reporting files and Production Reporting jobs have unique properties. See “[Job Properties](#)” on page 268 and “[Generic Job Properties](#)” on page 278.

## Setting Permissions

Set rights for users to access files. See “[Setting Permissions and Pushing Artifacts](#)” on page 66.

## HTML File Properties

In addition to [General Properties](#) and [Advanced Properties](#), HTML files contain these unique properties also:

**Table 25** HTML File Properties

HTML File Properties	Descriptions
<b>Character encoding</b>	The method of character encoding.  Note: Use UTF-8 for non-Latin-1 languages or when using WebSphere or iPlanet native servlet engines.
<b>Make displayable as a file content window</b>	Contents of this artifact can be displayed on Personal Pages. (Default is enabled.)

## URL Properties

In addition to [General Properties](#) and [Advanced Properties](#), URLs have these properties:

**Table 26** URL Properties

URL Properties	Descriptions
<b>URL (in the General Properties group)</b>	The URL starts with <code>http://</code> or <code>https://</code> .
<b>Make displayable as a file content window</b>	Contents of this artifact can be displayed on Personal Pages. (Default is enabled.)
<b>Character encoding</b>	The method of character encoding for the Web page.  Note: Use UTF-8 for non-Latin-1 languages or when using WebSphere or IPlanet native servlet engine.

URL Properties	Descriptions
<b>Icon</b>	The icon shown for the URL. To change the icon, click <b>Change Icon</b> .
<b>Change Icon</b>	Select to add a graphic file from your PC or from the repository. Set the width and height to smaller than 24 pixels.

## Interactive Reporting Database Connection Files

These files are used by Interactive Reporting jobs and Interactive Reporting documents to connect to databases. Separate Interactive Reporting Database Connection file must be specified for each query within a file or job, except for queries that use Local Results. See [“Selecting Database-Connection File Options” on page 256](#).

## Working with Versions

Repository artifacts have multiple versions, except for jobs, job output, Interactive Reporting database connection files, shortcuts, Web Analysis artifacts and Financial Reporting artifacts.

Typical files are collections of versions, even if you have not imported multiple versions. When a file is imported, the resulting artifact is a collection containing a single version. You can later import additional versions.

Versions can be revisions of the same file or completely different files. If the file is considerably different from the original file, you should import a new file with a unique name.

**Note:** To change imported versions for Interactive Reporting jobs or Interactive Reporting database connection files, use **Replace** in General Properties. It is important to replace the Interactive Reporting job or Interactive Reporting database connection file with a similar file. If the Interactive Reporting job is considerably different from the original Interactive Reporting job, import a new job. The system accepts files as replacements for Interactive Reporting jobs or Interactive Reporting database connection files.

Click an artifact’s name for the latest version. When you move or delete an artifact, versions are included in the operation.

Versions have their own properties that are distinct from the properties of their collection artifact.

This section describes how to manipulate versions:

- [Opening a Version](#)
- [Viewing or Modifying Properties of Versions](#)
- [Adding a Version](#)
- [Listing Multiple Versions](#)
- [Version Properties](#)

- [Deleting Versions](#)

## Opening a Version

Open any artifact version, see [“Opening a Version”](#) on page 76.

## Adding a Version

Add another file as a version to an artifact in the repository.

**Note:** All artifacts in the repository can have multiple versions, except for jobs, job output, Interactive Reporting database connection files, shortcuts, Web Analysis artifacts and Financial Reporting artifacts.

► To add versions:

1 From **Explore** select an artifact.

2 Select **File**, and then **Properties**.

The Properties dialog is displayed.

3 Select **Versions**, and click **Add New Version** .

4 Click **Browse** and select a file to add as a new version.

5 **Optional:** Do one or more of these steps:

- Enter a Description.
- Enable **Flag as an exception**, then enter a message. If an exception occurs, the message is displayed on the Exceptions dashboard.
- Set the priority to **High** or **Normal**.

6 Click **OK**.

The version is added to the repository as the latest version.

## Viewing or Modifying Properties of Versions

Each version has its own properties.

► To view or modify properties of versions:

1 From **Explore**, click the artifact whose version you want to edit.

2 Select **File**, and then **Properties**.

3 Select **Versions**.



4 Select **Modify**.

The only changeable properties are *Description*, *Flag as an Exception*, and *Message*, see “[Version Properties](#)” on page 77.

- 5 After modifying properties, click **OK**.

## Version Properties

**Table 27** Version Properties

Version Properties	Descriptions
<b>Description</b>	A description that identifies this version. <i>Using preliminary figures as of 2/03 or First draft with Marketing's comments</i> . The length is limited to 250 characters.
<b>Creation date</b>	(Read-only) Date the version was created.
<b>Last modified</b>	(Read-only) Date the version was changed. Changing versions includes replacing or modifying its properties.
<b>Modified By</b>	(Read-only) User, who made the last modification to the version.
<b>Priority</b>	Normal or High priority shows in Explore,  indicates high priority. Users can sort on priority, and search for high-priority artifacts.  <b>Note:</b>  does not display for high-priority scheduled jobs.  This property is available if your administrator activated the priority feature on your system.
<b>Size</b>	(Read-only) The file size which is set automatically.
<b>Flag as an exception</b>	An exceptions indicates a condition or result, such as a threshold being reached. <i>Flag as an exception</i> can be set manually by a user.  If you set this option on the latest version of an artifact, put the artifact on your Exception Dashboard, its state is displayed on the Exceptions Dashboard. See “ <a href="#">Using Exceptions</a> ” on page 93.
<b>Message</b>	Text associated with an exception for this version. When an exception is flagged on the version, this message prints, or it may be visible from a users Exception Dashboard.

## Listing Multiple Versions

From *Explore*, the latest artifact version is displayed in the content area.

► To see all versions:

- 1 Select **View**, and then **Show Columns**.
- 2 Click **Versions**, and then click **Save**.

## Deleting Versions

Delete one or more versions together.

- To delete versions:
- 1 From **Explore**, navigate to the artifact whose version you want to delete.
  - 2 Select **File**, and then **Properties**.  
The properties of the artifact are displayed.
  - 3 Click **Versions**, and then select a version.
  - 4 Click **Delete Selected**.
  - 5 Click **OK**.

# 4

## Viewing and Organizing Information

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## Viewing

To view, interact, and modify content within documents use Workspace Pages, Home Page, Explore, Applications, and Open Items. These can all be accessed from the Navigate menu.

- **Workspace Pages**—Enable users to create and edit a page aggregating content from various sources.
- **Home Page**—Provides a starting point for users and launching point for EPM Workspace functionality.
- **Explore**—Navigate through the repository to locate files and folders.
- **Applications**—Select Oracle Hyperion Financial Management, Fusion Edition, Planning, Oracle Hyperion Profitability and Cost Management, Fusion Edition, Oracle Hyperion Financial Data Quality Management ERP Integration Adapter for Oracle Applications, Oracle Business Intelligence products, or Performance Scorecard for viewing or launching.
- **Open Items**—Select the document name to view in the contents pane. Opened documents display in this list. Use the View pane to interact and view a document. For example, use the View pane to navigate through specific information for the active document. If the active document is a Web Analysis document, the document panel displays options such as filters, pages, and row sections in a Windows Explorer format.

## Using Different File Types

For information on how to view and use each file type, see:

- *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- [“Interactive Reporting” on page 107](#)
- [“Using Production Reporting Documents” on page 229](#)
- *Hyperion Web Analysis Workspace User's Guide*

## Creating a New Book, Batch, Document, or Workspace Page

The new document wizard creates the following items:

- Web Analysis documents, see *Hyperion Web Analysis Workspace User's Guide*
- Interactive Reporting documents, see [“Interacting with Interactive Reporting Documents” on page 110](#)
- Books, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- Batches, see *Oracle Hyperion Financial Reporting, Workspace User's Guide*
- Workspace Pages, see [“Workspace Pages” on page 100](#)

**Note:** All of these items may not be available from the New Document wizard. These items are only displayed and available if the product relating to the item has been installed.

## Selecting a Data Source for a Document

When creating documents you need to specify the data source. This determines the document type.

- To create a Web Analysis document, specify a Web Analysis database connection. See *Hyperion Web Analysis Workspace User's Guide*.
- To create an Interactive Reporting document, based on an existing document, specify a Interactive Reporting document. See [“Interacting with Interactive Reporting Documents” on page 110](#).

## Using Favorites

Users can set up their own Favorites and track items you access frequently to view them in the future. Administrators and users can push items to a users Favorites.

You need the proper role to push items to Favorites. See the corresponding appendix in the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*. If



you do not have the proper role to access Explore, you can also see your Favorites list by selecting the Favorites menu.

You can do the following with Favorites:

- [“Adding Items to Your Favorites” on page 81](#)
- [“Pushing Items to Favorites” on page 81](#)
- [“Managing Favorites” on page 82](#)

➤ To access Favorites

- 1 Select **Favorites**.
- 2 Select an item from the list of Favorites.

**Tip:** You can also access your personal pages.

## Adding Items to Your Favorites

Add items to your Favorites or push items to another users Favorite using the following:

- You need view access permissions or higher.
- Add any item to Favorites.
- Add folders then use Favorites to access that folder; you cannot access items within the folder directly.

➤ Add items to Favorites:

- 1 Select **Explore**, and navigate to the item.
- 2 Right-click and select **Add to Favorites**.

➤ Add folders to Favorites:

- 1 Select **Explore**, and navigate to the folder.
- 2 Right-click and select **Add to Favorites**.

## Pushing Items to Favorites

Push items to another users Favorites by specifying the user name, group, or role.

➤ Push item to Favorites:

- 1 Select **Explore**, and select an item.
- 2 Select **File**, and then **Properties**.
- 3 From **Properties**, select **Permissions** in left pane.

**Note:** You can also use your mouse and select **Edit Permissions** by right-clicking on the artifact.

**4 Populate Users, Groups, and Roles tab with the following:**

- a. To filter by name, select **begin with**, **contain**, or **are in group** and then enter letters.

You cannot use the **are in group** filter for roles.

- b. To filter by user type, select **roles**, **groups**, or **users**, click **Update List**.

The Users, Groups, and Roles tab display items based upon the selections you made in the drop-down lists.

**Note:** If all of the users/groups/roles are not listed, filter the list with different criteria or contact your administrator. Your administrator determines the maximum number of users/groups/roles to list. Wild cards are not supported and the filter is not case sensitive.

**5 Select users from the Users, Groups and Roles tab, click,**  .

**6 From Selected Users, Groups and Roles, select **Pushed** from the Favorite drop-down menu to push the item to the users Favorites.**

**7 Select **Push this item to selected Users, Groups, and Roles.****

If the Access to File option is set to No Access and there are no higher access rights for this item to inherit, then the item is not pushed.


**8 Repeat [step 1](#) through [step 7](#) to push other items to Favorites.**

**9 Click **OK**.**

**10 Optional: If you want permissions to apply to other content you import, make them your default permissions by selecting:**

- a. For files, **Make these the default permissions for all files I import.**
- b. For folders, **Make these the default permissions for all folders I import.**

Selecting this enables the system to automatically set the same permissions for files you import. You can change the permissions for each file or reset your default permissions at any time.

**Note:** To remove a role, group, or user from the selected list, click  after highlighting the name to be removed.

## Managing Favorites

➤ Manage items in Favorites:

**1 From EPM Workspace, select **Favorites**, and then **Manage Favorites**.**

**2 To remove an item from your Favorites, click **Remove** next to the item you want to remove.**

- 3 To display an item on your list of Favorites, click **Show** next to the item you want to show.

**Note:** Pushed items can be hidden in Favorites but not removed by the recipient. Pushed items can only be completely removed by the user that performed the push.

- 4 **Optional:** To resize column widths, drag the mouse over a column border, when the pointer changes to a double headed arrow, drag the borders to the right or left.
- 5 Click **OK**.

## Using Subscriptions

Subscriptions enable you to perform the following:

- Receive e-mail notifications and links to items every time the particular item is modified, a specific job runs, an exception is generated or anything in a folder changes. Subscribe to any item in the repository and you send it to one or more e-mail addresses. See [“Creating a Subscription” on page 83](#).
- If you subscribe to a folder you are notified of any new items imported or created in that folder or any modifications to items within its subfolders. See [“Subscribing to Folders” on page 85](#).

**Note:** You cannot subscribe to Personal Pages.

## Creating a Subscription

Subscribe to items to be notified when it changes. Receive e-mail notifications that the item changed or with the changed item attached.

Subscribe to be notified when exceptions occur as opposed to receiving notification when an item changes. The item’s owner must enable the item or job to generate exceptions for you to subscribe. Items and jobs generate exceptions when the following steps are setup:

- Production Reporting jobs and generic jobs can be programmatically set up to generate exceptions. See [“Supporting Exceptions in Production Reporting or Generic Programs” on page 284](#).
- Interactive Reporting jobs can be programmatically set up to generate exceptions. See [“Supporting Exceptions in Interactive Reporting Programs” on page 252](#).
- Manually set exceptions on items by setting the version property **Flag as Exception**; indicating that the item generated an exception. See [“Version Properties” on page 77](#). The latest version of the item is used to determine if an exception is set.

➤ To create subscriptions:

- 1 Select **Explore**, and navigate to the item you want to subscribe to.
- 2 Right-click the item, and select **Subscribe**.

**3 On the Subscribe page, perform the following steps:**

- Select **Subscribe** and send e-mail notifications to.
- In the text box, type one or more e-mail addresses for the recipient of the notification.
- If you want to send the item as an attachment, select **Attach file for “report name” to email message (if possible)**.

**Tip:** Your administrator determines the maximum size of attachments.

**4 Optional: To subscribe to an item only when a programmatic exception occurs, select Exception Only. This option is applicable to jobs only.**

If this option is not displayed, this item or job does not use exceptions.

➤ To add subscriptions to your default personal page:

**1 Select Explore, and navigate to the item you want to subscribe to.**

**2 Right-click the item, and select Subscribe.**

**3 Click the Personal Pages tab, and perform the following:**

This option is not available for multiple-cycle Interactive Reporting jobs.

- To add links to the subscription, click **Add to My Bookmarks**.
- To add an image that links to the subscription, click **Add as Image Bookmark**.

You can use a preconfigured image or browse to an image in the repository.

- To use a preconfigured icon, click **Use pre-configured icon file**.
- To use a custom icon, click **Use custom icon file** and enter the path and file name or use the **Browse** button.
- To specify the image size, enter pixel values in the width and height text boxes. If you do not enter values the entire image is used.

**4 Click OK.**

➤ To add Interactive Reporting document sections to your default personal page:

**1 Select Explore, and navigate to the item you want to subscribe to.**

The Interactive Reporting document must contain sections.

**2 Right-click the item, and click Subscribe.**

**3 From Personal Pages tab, click Add Sections of Interactive Reporting document.**

**4 From Embed Section, select a section, and click Add.**

**5 Repeat step 4 to add all desired sections.**

**6 Click OK.**

## Modifying or Removing Subscriptions

You can modify or remove subscriptions by managing a list of subscribed items.

- To modify or remove subscriptions:
  - 1 From EPM Workspace, select **Favorites**, and then **Show Subscribed Items**.
  - 2 Click a subscription, and then click **Open Subscriptions**.
  - 3 To remove the subscription, clear **Subscribe and send e-mail notifications to**.
  - 4 To modify the subscription, use the steps described in [“Subscribing to Folders” on page 85](#).
  - 5 Click **OK**.

**Note:** If you remove a subscription, it is also removed from all of your Personal Page Bookmark sections.

## Subscribing to Folders

When you subscribe to folders, you are notified of items imported to that folder or updates to items within the folder or its subfolders.

If you are interested in the entire contents of a folder or sub folder, you can subscribe to the folder or sub folder.

- To subscribe to folders:
  - 1 Select **Explore**, and navigate to the folder to which you want to subscribe.
  - 2 Right-click the item, and from the shortcut menu select **Subscribe**.
  - 3 On **Subscribe Settings**, select **Subscribe and send e-mail notifications to:** to receive notification for this folder and to change or enter your e-mail address.
  - 4 Enter an e-mail address for one or more recipients of the subscription.

You must enter the e-mail address, you cannot select from a list of recipients.
  - 5 To receive notification when there are changes to the subfolders, select **Notify on changes to sub-folders of “Users”**.
  - 6 To receive notification only when items in the folder generate exceptions, select **exception items**.
  - 7 To receive notification only when items in the folder are high priority items, select **High Priority Items**.

This option is only available if the administrator has enabled priority ratings.
  - 8 Click **OK**.

## Receiving and Viewing Subscriptions

Using a subscription e-mail notification you can access items directly without browsing the repository. E-mail notification comes in two formats:

- **E-mail with a link to the item or folder**—Click the link; if you have access to that item, you can open the document.
- **E-mail with the item attached**—Follow the directions to either view the file where it is or download the attachment to a file.

## Using Personal Pages

Personal Pages are customizable pages enabling you to organize, view, and access EPM Workspace items and other Web content on Web pages. Items on personal pages do not interact with each other. If items change, it cannot propagate changes to items on the Personal Page. To build interactive dashboards, see *Hyperion Interactive Reporting Object Model and Dashboard Development Services Developer's Guide, Volume I: Dashboard Design Guide*.

You can modify the content and layout of Personal Pages, create additional Personal Pages, copy and customize Personal Pages, add links to repository items or to a Web site.

Content windows and file content windows are the components that make up a Personal Page.. Personal Pages open in the maximize mode, automatically hiding the view pane. When publishing personal pages, you can set access permissions during the personal page publish phase. Bookmarks for Web Analysis, Production Reporting, Financial Reporting, and Interactive Reporting jobs open as new tabs in EPM Workspace.

- *Content windows* are collections of links to repository items or external sources, image bookmarks, and Broadcast Messages.
- *File content windows* display the contents of an item opposed to a link to the item. You can display the contents of the following items:
  - Embedded Interactive Reporting document sections
  - HTML files
  - HTML job output

Add or remove content windows or file content windows. Content windows and file content windows are optional except Broadcast Messages. You cannot remove Broadcast Messages, nor delete a Personal Page that displays them, unless you have another Personal Page that displays the Broadcast Messages.

Content on Personal Pages include:

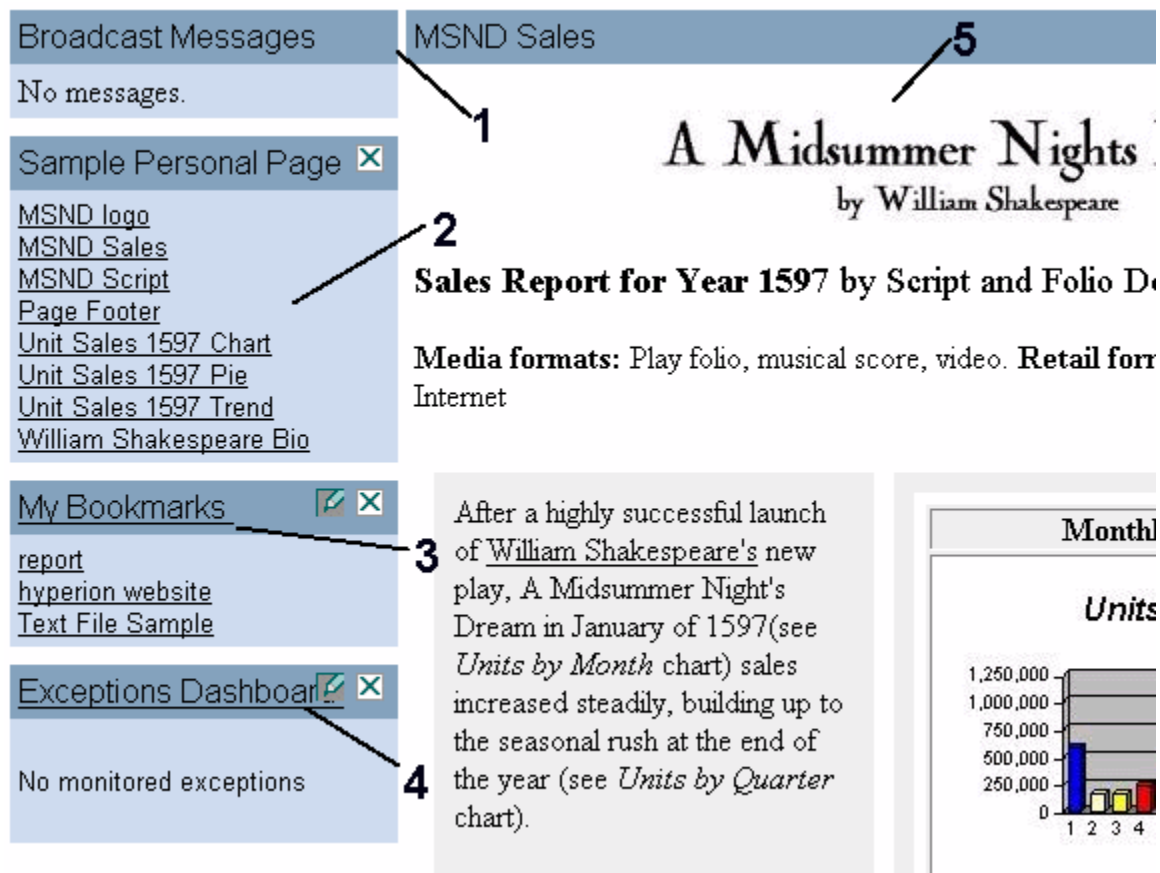
- **Broadcast Messages**—Link to special folders that the administrator populates. The contents of this folder are displayed as one or more content windows and set up and managed by the administrator.

Broadcast messages contains two sub-folders:

- Personal Page Content—Published personal pages.
- Sample Personal Page—Content on personal pages set up by the administrator and content that you add to personal pages by subscribing to items.
- **My Bookmarks**—Collection of links to Web pages or repository items.

- **Image bookmarks**—Graphic links to web pages or repository items.
- **HTML file or job output displayed as a file content window**—Contents of EPM Workspace HTML items displayed on a Personal Page. URLs are also displayable.
- **Exceptions Dashboard**—Add traffic light indicators for jobs enabled for exceptions, or items flagged as exceptions. If the traffic light is red, the item was flagged as an exception or the job generated an exception. If the traffic light is green, the job did not yet generate an exception.
- **Displayable Interactive Reporting sections**—Sections from Interactive Reporting documents and Interactive Reporting job output to which you have access.

Figure 1 Sample Content Window and File Content Windows



**Note:** If your administrator configured the use of heading bars, each content window's title is displayed in a colored heading on Personal Pages as shown.

A Personal Page includes:

- **Broadcast Messages Heading Bar**—Format the Heading bar for each content window.
- **Links**—Links to HTML pages or Web sites.
- **Content Window**—My Bookmarks that are set up using Subscriptions.

- **Exceptions Dashboard**—Lists job exceptions and notification messages or items that are flagged for exceptions.
- **File Content Window**—Displays the contents of an HTML file.


## Customizing Personal Page Content

You can specify information included and the appearance of your Personal Pages. Use the following steps to customize your Personal Pages:


- [“Adding or Removing Personal Page Contents” on page 88](#)
- [“Displaying HTML Content on Personal Pages” on page 88](#)
- [“Embedding Interactive Reporting Document Sections in Personal Pages” on page 89](#)
- [“Creating Bookmarks” on page 91](#)
- [“Using Exceptions” on page 93](#)
- [“Modifying the Layout of a Personal Page” on page 96](#)
- [“Changing the Colors on a Personal Page” on page 96](#)

## Adding or Removing Personal Page Contents

► To add or remove content (content windows) to a Personal Page:

- 1 Select **Favorites**, and then **Manage Personal Pages**.
- 2 Select a personal page.
- 3 Select .

The content of the selected personal page is displayed in the My Personal Page Content area.

- 4 Select the content you want to add from **Select Content**, select .

The items listed in the select content area are controlled by your administrator. You can also add content through the subscribe feature. See [“Using Subscriptions” on page 83](#).

- 5 To remove items, select the content you want to remove from **My Personal Page Content** and select **Remove**.
- 6 Select **Save Settings** or close the window to **Cancel**. Changes are automatically displayed in the personal page you updated.

## Displaying HTML Content on Personal Pages

Add HTML items as a file content window on a Personal Page, which displays the content of the item as opposed to a link to the item.



**Note:** HTML job output from Production Reporting jobs and generic jobs must be enabled in order to display the HTML job output as a file content window.

## Displaying an HTML File on a Personal Page

➤ Display HTML files on Personal Pages:

- 1 From **Explore**, navigate the folders until you find the document to add to your Personal Page.
- 2 Right-click the item, and select **Subscribe**.
- 3 From the Subscribe window, select the **Personal Pages** tab.
- 4 Select **Display file/output as a File Content Window**.

If this option is not available, this file/output cannot be displayed as a file content window.

- 5 **Optional:** To add the file content window to a personal page, click the desired personal page.

The HTML displays the embeddable content windows list.

## Adding a File Content Window to Personal Pages

➤ To add file content windows to Personal Pages:

- 1 Select **Favorites**, and then **Manage Personal Pages**.

To define the location of the Broadcast Messages and content windows on your page, select the personal page and right-click. Select **Personalize Layout**.

- 2 Select the Personal Page to add the file content window to and click **Personalize Content**.
- 3 From **Select Content Window**, click the desired file content window(s) and add it to the Content list for your Personal Page.
- 4 Click **Save Settings**.

## Removing a File Content Window from All Personal Pages

➤ To remove file content windows from Personal Pages:

- 1 Select **Explore** and navigate to the original HTML document/output file.
- 2 Right-click the item, and select **Subscribe**.
- 3 On **Subscribe**, clear **Display file/output as a File Content Window**.
- 4 Select **OK**.

## Embedding Interactive Reporting Document Sections in Personal Pages

Embed sections of Interactive Reporting documents or Interactive Reporting job output into Personal Pages.

- If the item is an Interactive Reporting job output, it must be HTML from a single-cycle job. The most recent job output is displayed in the embedded section and it is not interactive.
- Embedded Interactive Reporting sections are fully interactive, with options available from the pop-up menu.

Specify whether to include the Interactive Reporting Main Menu bar or the Navigation bar as part of the embedded section. Interactive Reporting document sections you can embed are:

- **Results**—Reduced vertically to fit in the container, with horizontal scroll bars. To view more vertical regions, use the page navigation options available on the Main Menu bar.
- **Tables**—Reduced vertically to fit in the container, with horizontal scroll bars. To view more vertical regions, use the page navigation options available on the Main Menu bar.
- **Pivot**—Reduced vertically to fit in the container, with horizontal scroll bars. To view more vertical regions, use the page navigation options available on the Main Menu bar.
- **Chart**—Scaled proportionally to fit in the container.
- **Reports**—Clipped to fit in the container.
- **Dashboard**—Clipped to fit in the container.

### Embedding an Interactive Reporting Section on a Personal Page

► To embed Interactive Reporting sections on a Personal Page:

- 1 Select **Explore**, and navigate to the Interactive Reporting document or job output file.
- 2 Right-click the item, and click **Subscribe**.
- 3 Click **Personal Pages** tab.
- 4 Select **Add sections of Interactive Reporting Document**.
- 5 Select the section to add from **Embed Section**.
- 6 Select the Personal Page to update.

A list is displayed if you have more than one Personal Page.

- 7 Click **Add**.

The section is displayed in the **Embedded BQY Sections** list box.

- 8 Specify the size you want each section to be on the Personal Page.

Select the desired section from **Embedded BQY Sections** and specify its height and width in pixels in the respective field.


- 9 Click **OK**.

### Editing Embedded Interactive Reporting Sections on a Personal Page

After embedding an Interactive Reporting section, you can edit its properties.

➤ To edit the appearance of embedded sections:

1 Select **Favorites**, and then **My Personal Page**.

2 From the personal page, select 

3 Change the settings from the **Edit Results Section** window:

- **Replace embedded section**—(Read only) Displays the section currently embedded.
- **With section**—Select a section to replace the currently embedded section. The name of currently embedded section is displayed by default.
- **Specify section size**—Enter the size of the section in pixels.
- **Toolbar display**—Select the Interactive Reporting Server toolbar to embed with the section (the default is none).
  - Select **Navigation Only**, to have the first page, previous page, next page, and last page toolbar buttons only.
  - Select **Standard**, to have all toolbar buttons except for the Interactive Reporting Server help button.
  - Select **None**, to have no toolbar displayed.

4 Click **Save Settings**.

The edited embedded section is displayed on your Personal Page.

## Removing Embedded Interactive Reporting Sections from a Personal Page

You can remove any embedded Interactive Reporting section from your Personal Page.

➤ To remove embedded Interactive Reporting sections from Personal Pages, click X in the title of the file content window containing the Interactive Reporting section you want to remove.

➤ To remove an embedded Interactive Reporting section from all Personal Pages:

1 Select **Explore**, and navigate the folders until you find the item containing the embedded sections you want to remove from your Personal Page.

2 Right-click the item, and click **Subscribe**.

3 On the **Subscribe** page, navigate to **Add Sections of Interactive Reporting Document**.

4 Select the section you want to remove from the list box and click **Remove**.

5 Click **OK**.

## Creating Bookmarks

Include bookmarks on a Personal Page. A bookmark is a text link or image link to an item or to a URL.

## Adding Bookmarks for an artifact in Explore

► To add Bookmarks for items:

- 1 Select **Explore**, and navigate to the artifact.
- 2 Right-click the artifact, and select **Subscribe**.
- 3 On **Personal Pages** tab, select **Add to My Bookmarks**.

The new bookmark is displayed on every Personal Page that includes the My Bookmarks item.

- 4 Select **OK**.
- 5 Go to your **Personal Page**.

The Bookmark is displayed in the My Bookmarks list.

When selecting a Web Analysis, Production Reporting, Financial Reporting, or Interactive Reporting jobs bookmark from the My Bookmarks list of a personal page, it opens as a new tab in EPM Workspace.

## Adding Image Bookmarks for an Artifact

Bookmarks are added for artifacts you subscribe to, except folders.

► To add image bookmarks for artifacts:

- 1 Select **Explore**, and navigate to the artifact.
- 2 Right-click the artifact, and select **Subscribe**.
- 3 On **Subscribe Settings**, select **Add As Image Bookmark**, and specify the following information:
  - a. Graphic files to use. Select either:
    - A pre-configured icon file from the drop-down list
    - A custom icon file (your administrator needs to add your custom graphic to the EPM Workspace file system and give you the path to it). Using a graphic file from your local file system does not work.
  - b. Dimensions for displaying the image (in pixels).
- 4 Select **OK**.

## Adding URL Bookmarks from Personal Pages

Bookmarks can be added from within Personal Pages.

► To add bookmarks from Personal Pages:

- 1 Select **Favorites**, and then **My Personal Page**.
- 2 Select a personal page from the list. Right-click and select **Add bookmark URL**.
- 3 From the Add URL Bookmark to My Bookmarks dialog, enter a bookmark name and URL for bookmark.

The URL must begin with either <http://> or <https://>.

#### 4 Select **Save**.

## Using Exceptions

Exceptions are conditions or results (such as a threshold being reached) requiring intervention. Exceptions cause corresponding indicators on a subscribing users Exceptions Dashboard to change, or a notification to be sent to users who have subscribed.

The exceptions dashboard is an optional content window used to monitor exceptions, it displays on Personal Pages. Each indicator represents one exception-capable job or items manually flagged as an exception.

Use exceptions with jobs or items:

- Using monitored exceptions with jobs:
  - Programmatically enable monitored exceptions on jobs. The exception is set when certain conditions or thresholds are met. Job exceptions are generated by Production Reporting jobs, Interactive Reporting jobs, or generic jobs. See [“Configuring Exceptions” on page 93](#).
  - Subscribe to jobs and choose to be notified by e-mail when the exception occurs.
  - Place jobs on the Exceptions Dashboard and view its exception status. For each job you add to the Exceptions Dashboard, a green traffic light icon is displayed. If the job generates an exception, the traffic light changes to red. [“Using the Exceptions Dashboard” on page 94](#).
- Using exceptions with items:

**Note:** An item must have version properties in order to use exceptions.

- Manually set exception status for items. See [“Configuring Exceptions” on page 93](#).
- Subscribe to items and choose to be notified by e-mail when the exception occurs.
- You can place items on the Exceptions Dashboard and view its exception status. For each item you add to the Exceptions Dashboard, a red traffic light icon is displayed. Items cannot be added to the exception dashboard unless the exception status is set. See [“Using the Exceptions Dashboard” on page 94](#).

You have only one Exceptions Dashboard, even if you put it on multiple Personal Pages. If you modify the Exceptions Dashboard on one Personal Page, it changes on all of your Personal Pages that include it.

## Configuring Exceptions

Configure exceptions for jobs and items with version properties. There are two ways to configure exceptions:

- Programmatically set-up a job to generate exceptions if certain conditions are met. When you run the job if an exception occurs, the exception status of the job is set.
  - Manually set exceptions on an item by setting the property to **Flag as an Exception**.
- To programmatically enable a job with monitored exceptions capability:
- Design the Production Reporting job (\*.sqr) or generic jobs to write exceptions to the `output.properties` file. See “[Supporting Exceptions in Production Reporting or Generic Programs](#)” on page 284.
  - Design the generic job, to write exceptions to the `output.properties` file. “[Supporting Exceptions in Production Reporting or Generic Programs](#)” on page 284.
  - Design the Interactive Reporting job to write exceptions. See “[Supporting Exceptions in Interactive Reporting Programs](#)” on page 252.
- To set exception status for items manually, from **Explore**, set the property **Flag as an Exception** for the latest version of the item. See “[Version Properties](#)” on page 77.

## Using the Exceptions Dashboard

The exceptions dashboard shows a traffic light indicator for each job or item you place on it. The traffic light indicator changes to indicate if an exception occurred (red) or did not occur (green).

**Note:** Items have version properties to use exceptions and the exceptions dashboard.

- To use the Exceptions Dashboard with jobs:
- 1 Select **Explore**, navigate to the job whose exception you want to monitor, right-click the job, and click **Properties**.
  - 2 From Advanced, select **If exceptions are generated, allow users to add to their Exceptions Dashboard**, and click **OK**.
  - 3 Select **Explore**, navigate to the job, right-click the job, and click **Subscribe**.
  - 4 On **Personal Pages** tab, select **Add to Exceptions Dashboard**.
- If this option is not on the Subscribe Settings page, the file cannot be monitored for exceptions.
- 5 Click **OK**.

A traffic light is added to the exceptions dashboard. The traffic light indicator is green. If the job is run and generates an exception, then the traffic light indicator changes to red.



- To use Exceptions Dashboard with items:
- 1 Select **Explore**, and navigate to the item that has an exception you want to monitor.
  - 2 Right-click the item, and click **Properties**.

- 3 From **Advanced**, select **If exceptions are generated, allow users to add to their Exceptions Dashboard**.
- 4 From **Versions**, set the property **Flag as an Exception** for the latest version of the item and click **OK**.
- 5 Select **Explore**, navigate to the item.
- 6 Right-click the item, and from the shortcut menu, select **Subscribe**.
- 7 On **Subscribe Settings**, select **Add to Exceptions Dashboard**.  
If this option is not on the **Subscribe Settings** page, this file cannot be monitored for exceptions.
- 8 Click **OK**.

A red traffic light is added to the exceptions dashboard, to indicate that an exception is set for this item.


### Adding the Exceptions Dashboard to a Personal Page

- To add the Exceptions Dashboard to a Personal Page:

- 1 Select a **Personal Page** and click 
- 2 Click **Exceptions Dashboard** and click 
- 3 Click **Save Settings**.

### Customizing the Exceptions Dashboard

- To customize Exceptions Dashboard:

- 1 Select **Favorites**, and select a **Personal Page**.
- 2 On **Exceptions Dashboard**, select 
- 3 To not show green lights, and have red lights displayed when an exception occurs, enable the **Only display links to artifacts that have exceptions**.

**Note:** This option is applicable for monitored exceptions used with jobs. Traffic lights display when the exception status is set. You cannot show a green traffic light for items.

- 4 When exceptions occur and you want to see its exception text explanatory message next to its red light, select **Display exception messages next to graphic indicators**.

**Note:** There is a smartcut tag called `getException()` that displays exception messages on a Interactive Reporting dashboard. For more information, see the *Hyperion Interactive Reporting User's Guide*

- 5 Click **Change Properties**.


## Modifying the Layout of a Personal Page

Use the Layout button to select different layout styles for Personal Pages or to rearrange content windows.

### Specifying a Layout Style

The layout style of a Personal Page includes how many columns or sections the page has and where they are displayed on the page.

► To specify layout styles:

- 1 Select **Favorites**, and then **Manage Personal Pages**.
- 2 Select a **Personal Page**, then select .
- 3 Click **Select Layout Style** and select a layout style.
- 4 To put content windows in a section across the top or bottom of the Personal Page, click **Show Header Section** or **Show Footer Section**.
- 5 Click **Save Settings**.

### Rearranging Content Windows

► To move content windows:

- 1 Select **Favorites**, and then **Manage Personal Pages**.
- 2 Select a **Personal Page**, and then click **Layout**.
- 3 Select a content window to move.


To move the selected content window up or down within the section (column, header or footer) it is currently in, click a vertical arrow. If you want to move the selected content window to another section, click a horizontal arrow.

- 4 Continue selecting and moving content windows as desired..
- 5 **Optional:** To move the **Broadcast Messages** content windows, select **Above all Content Windows** or **Below all Content Windows** in the **Broadcast Messages** section of the **Content Layout** page.
- 6 Click **Save Settings**.

## Changing the Colors on a Personal Page

Select color schemes for Personal Pages, or individually set colors for page elements.

► To change colors on Personal Pages:

- 1 Select **Favorites**, and then **Manage Personal Pages**.
- 2 Select .



### 3 Select a color scheme.

To set colors individually, click **Customize Colors for Custom**.

Each colorable Personal Page element displays an array of color samples above a My Own \_\_\_ Color option. Select any color in the array by selecting its radio button. Colors shown next to the My Own \_\_\_ Color entry box is the current color of the element.

### 4 For each element whose color you want to change, select the **new color** you want or enter a **hexadecimal color code** (for example, #000000 is the hexadecimal color code for black) in the My Own \_\_\_ Color entry box.

### 5 Select **Save Settings**.

### 6 Select a color scheme option:

- **Change all my Personal Pages to use this Color Scheme**—Applies the specified color scheme to all your existing Personal Pages.
- **Use this as my default Color Scheme for all new Personal Pages**—Applies the specified color scheme to the current Personal Page and any future ones.

### 7 Select **Save Settings**.

## Working With Personal Pages

Create multiple Personal Pages for different purposes, specify a default Personal Page if you have more than one, and publish a Personal Page so that others can use it as their own.

- [“Creating a Personal Page” on page 97](#)
- [“Copying a Personal Page” on page 98](#)
- [“Deleting Personal Pages” on page 98](#)
- [“Publishing and Replacing Personal Pages” on page 99](#)

## Creating a Personal Page

You can create multiple Personal Pages.

➤ To create a Personal Page:

### 1 Select **File**, then **New**, and then **Personal Page**.

### 2 Use to add the content windows you want (listed on the left side) to the Personal Page Content list for your new Personal Page (on the right), click **Next**.

### 3 Select a layout style and click **Next**.

Layout styles only show the Personal Page portion of the browser window; the View pane also is displayed on the left. A Header section is a wide area that contains one or more content windows. A Footer section is the same, but located at the bottom of the page.

- 4 For **Layout**, arrange the various content windows where you want them on your **Personal Page**. Select a



content window and to move the content window between sections. Select a content window and



then to change a content window's position in a section. When you are done, click **Next**.

- 5 On **Edit Personal Page**, enter a name and description for your **Personal Page**, select a color scheme, click **Finish** or **Finish & Publish**.

Selecting **Finish** opens the personal page just created for viewing. **Finish & Publish** enables you to assign permissions during the publishing process of **Personal Pages** prior to viewing.

You can further customize the colors at a later time, see [“Changing the Colors on a Personal Page” on page 96](#). On the **My Personal Pages** page, the new **Personal Page** is listed.

- 6 From **Favorites**, select your **Personal Page** to view.

## Copying a Personal Page



In addition to publishing new **Personal Pages**, you can also copy a published **Personal Page** to a new **Personal Page**.

**Note:** You must have a published **Personal Page** prior to performing the following steps.

- To copy published **Personal Pages**:

- 1 Select **Favorites**, and then **Manage Personal Pages**.

- 2 Select 

 is not displayed if you exceeded the number of **Personal Pages** allowed by your administrator. You must remove a **Personal Page** to enable .

- 3 Select **Copy Published Personal Page**, select **Next**.

The **Add Existing Personal Pages** page is displayed.

- 4 Select the personal page(s) you want to copy from the list, select **Finish**.

Select . The page(s) are displayed in **Manage Personal Pages**.

## Deleting Personal Pages

- To delete **Personal Pages**:

- 1 Select **Favorites**, then **Manage Personal Pages**.

- 2 Select the **Personal Page** you want to delete from **My Personal Pages**.
- 3 Right-click and select **Remove Page**.  
Select **Restore Settings** to restore the deleted Personal Page to the list.
- 4 Select **Save Settings**.

## Setting Defaults

The first personal page in the list is the default personal page.

- To set default Personal Pages:
  - 1 Select **Favorites**, and then **Manage Personal Pages**.
  - 2 On **My Personal Pages**, select the **Personal Page** to use as the default.  
Use the up arrow to move this page to the top of the list.
  - 3 Select **Save Settings**.

## Publishing and Replacing Personal Pages

Publish new Personal Pages or replace published Personal Pages using the content of your Personal Page. Publishing a Personal Page enables other users to copy it.

**Note:** To publish Personal Pages, you need access permissions to the Personal Page folder.

- To publish or replace Personal Pages:
  - 1 Select **Favorites**, and then **Manage Personal Pages**.
  - 2 On **My Personal Pages**, select the **Personal Page** you want to publish, right-click and select **Publish**.
  - 3 To publish, enter a name and a description in the **Publish New Personal Page** section, select **Publish**.  
The name and description defaults to what you have already assigned to this Personal Page. The name and description should communicate what is distinctive about this page.  
When you Publish and run an Interactive Reporting or Production Reporting job to generate the job output, the default naming convention for the job output changes to list the job and job output together.
  - 4 To replace: In **Replace Personal Page**, select the page to replace, click **Replace**.  
You can replace a published Personal Page with one that has a different name. The contents of the published page are replaced and the published page name remains the same.
  - 5 To set access permissions on the Personal Page you just published: select **Edit Permissions**.  
The default access permissions when publishing Personal Pages are the same as basic documents. To set access permissions, see [“Setting Permissions” on page 66](#).

# Workspace Pages

Workspace Pages enable users to create, edit, and aggregate content from Oracle and non-Oracle sources from EPM Workspace repository, into a single environment.

Oracle sources include:

- Interactive Reporting— Sections within the document, Sections within the job, Sections within the snapshot
- Web Analysis Document
- Production Reporting or SQR Document or Snapshot
- Financial Reporting Document, Snapshot
- Performance Scorecard Templates
- Favorites
- Alerts or Exceptions
- Applications
- Folder listing (no subfolder items)

Non-Oracle source files include:

- URL
- Text files
- Image files
- HTML files
- Microsoft Office documents (Word, Excel, PowerPoint, Project)
- XML files
- RTF files
- PDF files
- Image files—.jpg, .gif, .png
- Shortcuts

There are two types of Workspace Pages, My Workspace Pages and Shared Workspace Pages. My Workspace pages are customizable workspace pages created by a user that are marked specially so that they can be easily accessed from one single place without having to navigate the repository. You can create shortcuts to My Workspace Pages that may be stored in any folder. Shared Workspace pages are stored in a system folder that authorized users can access from Explore. Users that have access to this folder can move My Workspace pages manually within Explore to promote them to the rest of the organization. A user needs Content Publisher role to be able to save anything to the repository, including Workspace pages. There is also a Home page Workspace page that is installed with EPM Workspace that you can point to using Preferences as a default start page, for more information see *Using Home Page in the Oracle Enterprise Performance Management Workspace User's Guide*.

Additional Workspace page features include:

- Provide content aggregation
- Provide interactivity directly within a workspace page
- Easy self service creation with supplied templates
- Ability to build a dashboard in very little time
- For advanced users, free form layout mechanism
- Navigate through EPM Workspace repository

## Creating Workspace Pages

Templates are used as a starting point to create Workspace pages. Templates allow the user to specify in advance the layout of the workspace page before adding content. A user can then drag and drop content from the Content browser (left pane) to a layout area. The Content browser contains the following sources to select from: EPM Workspace repository, Favorites, and Applications repository. The Applications repository contains Oracle Hyperion Performance Scorecard, Fusion Edition and non-Reporting and Analysis artifacts. Users can only select one item at a time from the Content browser.

The Find at the bottom of the Content browser allows users to perform a search in the chosen source. Find searches EPM Workspace repository items based on matches to the name of the object, it does not perform finds based on other attributes of the object. Find performs a search of the entered string without having to force the user to enter wildcard characters. Results are displayed in alphabetical ascending order within the Content browser. The results are also displayed in the source drop down allowing users to switch between find results and repository navigation.

➤ To create a Workspace page:

### 1 Do one of the following:






- Select **File**, then **New**, and then **Workspace Page**.
  - a. Select a template from the Templates dialog. Selected template is highlighted.
  - b. Select **OK**. Workspace page is created with chosen template.
- Select **File**, then **New**, and then **Document**.
  - a. Select **Create a Workspace Page** and click **Next**.
  - b. Select one of the templates. Selected template is highlighted.
  - c. Click **Finish**. Workspace page is created with chosen template.

**2 From the Content Browser, select a source for the location of the file you want to add to the layout area.**

**3 Select the file and drag and drop from Content Browser to a layout area. The title bar displays the title of the document by default.**

**4 Optional:** To resize a layout area, select the lower right corner with your mouse and drag to resize.

**5 Optional:** To move a layout area, select the title area with your mouse and drag to new position.

- 6 **Optional:** To add a URL, Favorites, Alerts Exceptions, or Applications in the content area of a Workspace page, select **Edit**, then **Add Content**, then **URL, Favorites, Alerts Exceptions, or Applications**.
- 7 **Optional:** To add a folder listing, select the folder and drag and drop from Content Browser to the content area of Workspace page.
- 8 To edit a layout area, select  from the layout area toolbar. See [“Editing Layout Area” on page 103](#).
- 9 **Optional:** Select  in the layout area toolbar to open the content as another tab within EPM Workspace.
- 10 **Optional:** Select  to delete the layout area.
- 11 **Optional:** Select  to maximize the content to consume the entire content area. Once maximized, you can restore to it's original size and location by selecting .
- 12 By default, a Workspace page is saved as My Workspace Page. This allows the Workspace page to be available from the **Navigate**, then **Workspace Pages**, then **My Workspace Pages** menu and from the **File**, then **Open**, then **Workspace pages**, then **My Workspace Pages** menu.

To save the Workspace page without having it available in the above menu locations, deselect Save as My Workspace Page from the Save As dialog.

- 13 **Optional:** To save a Workspace page as a Shared Workspace page, from the Explore module, click and drag the Workspace page file to the system folder where Shared Workspace pages are stored.

**Note:** You must be an authorized user that has access to the folder where Shared Workspace pages are stored.

## Layout Area

Layout area is used to designate an area on a Workspace page where content can be placed. Each layout area is independent, and can be resized and overlap. Layout areas also have properties that can be modified, see [“Editing Layout Area” on page 103](#). Each layout area can be positioned anywhere within the content area. Toolbars are used to perform functions such as editing the properties, maximizing and restoring, deleting, and launching the layout area as another tab within EPM Workspace.

You can add layout areas to an existing Workspace page by dragging and dropping repository content from the Content Browser into the Content area. Additional content includes: URL, Favorites, Alerts/Exceptions and Applications. URL is used to specify any URL as the source location for the content. Users should not add URLs to untrusted sites for security purposes. Favorites displays the user's favorites within EPM Workspace. This provides quick access to a user's Favorite repository. Alerts content displays the alerts or exceptions that are generated by Interactive Reporting and Production Reporting. Applications display the list of applications provisioned for the user. Users can also add a folder to the content area by dragging and dropping a folder from the Content Browser. Links to files contained within the folder are displayed which when selected launches the file as a tab in EPM Workspace. Subfolders are not listed.

## Editing Layout Area

► To edit layout area properties:

- 1 To rename a layout area, enter a name in the Title text box.
- 2 Source displays the path to the file in the layout area. Select the **Select** button to select another file or folder to replace the existing content.

You cannot change the source for Favorites, Alerts/Exceptions or Applications content.

- 3 **Optional:** Complete the following if you selected the **Select** button in the previous step.
  - a. From the Browse dialog, select a source for the file you are searching for.
  - b. Enter the filename in the Find textbox and select **Find**.
  - c. Select **OK**.
- 4 Enter values for size and position.
- 5 For Oracle Hyperion Financial Reporting, Fusion Edition, Oracle's Hyperion® Web Analysis, and Interactive Reporting products, you can select the **Show Layout Area Toolbar** option from Properties to display the content toolbar.
- 6 **Optional:** Deselect **Show Scrollbars** if you do not want to display scrollbars for layout area.

Documents in a layout area that have their own scroll bars cannot be hidden for example, a .PDF document.

## Workspace Page Content Area

Content displayed here depends on content added to a portlet in a Workspace Page. You may have added a URL, Favorites, Alerts/Exceptions, or Application to the content area of a portlet. For example, if you added Applications and you select **Launch**, it opens the content as another tab within EPM Workspace. From here, you can select a link to one of the applications, for example, Planning, and it launches Oracle Hyperion Planning, Fusion Edition. For more information on how to Launch, see [“Workspace Pages” on page 100](#).

## Using Home Page

If Reporting and Analysis Framework has been installed and configured, Home page provides a starting point for users and launching point for EPM Workspace functionality. Home page can be used as follows:

- Home Page is the default startup document for users with a BI+ role and it is installed with Reporting and Analysis Framework. This file is located in the Shared Workspace Pages folder.
- When you select the Home button, it opens the Home page that was selected from the Preferences dialog, Default Startup Options. For example, if you created a Workspace Page you can point to this file as your home page.

This home page file displays recently opened documents, Workspace Pages, and Quick Links to Favorites and Applications that a user has access to.

## Home Page Features

The default home page consists of recently opened items, Workspace pages, and Quick links.

### Recently Opened

- Stores recently opened items for each user provisioned in EPM Workspace
- Items listed have an icon followed by item name
- Clicking on an item opens it in the module content area
- Items supported include EPM Workspace repository items and applications
- If documents currently displayed are deleted from repository or user is deprovisioned from application, items are removed
- Selecting the Open link displays the Open dialog from which you can open a document

### Workspace Pages

- Files can be listed for each My Workspace Pages and Shared Workspace Pages. If user has access to more than four My Workspace Pages and more than four Shared Workspace Pages, a More link is displayed which when selected displays a context menu to display all the remaining items.
- Clicking on an item opens the item in the module content area

### Quick Links

- Favorite items are displayed followed by Application items
- If there are more than four items, then links are displayed for a context menu listing the remaining items. If there are no Applications to list, then more number of Favorites can be displayed.
- Clicking on an item in a section opens the item in module content area

## Setting Start Page back to Home Page

If you change the Default Startup Options preferences to an application or document other than Home page you can set it back to the default Home page shipped with Reporting and Analysis Framework.

- To set the EPM Workspace start page back to Home page installed in the Shared Workspace Pages folder:

- 1 Select **File**, and then **Preferences**.



2 Select **Home Page** from the Content drop-down menu.

3 Select **OK** in Preferences dialog.

The Next time you login, the Home Page is displayed.



# 5

## Interactive Reporting

### In This Chapter

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## Using Interactive Reporting Documents in EPM Workspace

EPM Workspace enables users to query relational databases and heterogeneous sources (for example, users of SQL Server, Oracle, flat files, Production Reporting/Web Analysis module content) and perform quick ad-hoc analysis by drilling down and pivoting on the data to see patterns or exceptions. Many features help users to analyze their data to conduct sales and key performance, financial, and forecasting analyses.

Three types of users can relational data source. “Developers” who have the database connectivity software may use a full 32-bit application. “Power users” without this connectivity or when there are more security concerns may be given access to query using a client connected to the database through a server. Users can further given permission to create content completely from scratch, using add-on software installed on their local machine and hosted by the web browser.

“Information consumer users” typically use a “thin client” approach; no software is loaded for these users, who instead interact with a DHTML-based series of pages.

The topics in this section explain how use to an Interactive Reporting document (BQY) in EPM Workspace for Information consumer users.

# Using the Interactive Reporting Toolbars

Use the Standard and Interactive Reporting toolbars to navigate through the EPM Workspace and work with common commands.

- [Standard Interactive Reporting Toolbar](#)
- [Navigation Toolbar](#)
- [Paging Toolbar](#)

## Standard Interactive Reporting Toolbar

The Standard Interactive Reporting toolbar is specific to those features used exclusively for Interactive Reporting documents:

Interactive Reporting toolbar commands include (from left to right):



1. Data Layout enables the data layout panes in the Content area.
2. Navigate Back displays the previous section.
3. Navigate Front displays the next section.
4. Dashboard Home displays the Dashboard Home section.
5. Page # displays the current page for the table reports. For all charts with the exception of pie, scatter and bubble, the current view of data points on the x and y axes is shown.
6. Page Left moves one page in the left direction in the report sections. To move to the first page in the left direction, select [Shift] + Click + left arrow. In the Chart section, this icon enables you to move one view in the left direction.
7. Page Up moves one page in the up direction in the report sections. To move to the top view, select [Shift] + Click + Up arrow. In the Chart section, this icon enables you to move one view up.
8. Page Down moves one page in the down direction in the report sections. To move to the bottom page, select [Shift] + Click + Down arrow. In the Chart section, this icon enables you to move one view down.
9. Page Right moves one page in the right direction in the report sections. To move to the first view in the right direction, select [Shift] + Click + right arrow. In the Chart section, this icon enables you to move one view right.
10. Refresh processes only the current section against the database server to dynamically retrieve the most current data set, with the exception of the Dashboard and Report sections. When the Refresh command is selected in the Dashboard and Report sections, all queries in the Interactive Reporting document (BQY) are refreshed. Queries are refreshed in the order in which they are displayed in the section catalog of the full client. For example, in a Interactive Reporting document (BQY) with three queries, Query1, Query2, and Query3, the queries are executed in that order when “Refresh All” is selected.

11. Export to PDF exports a section to Portable Document Format (PDF) and launches it inside your browser if the PDF MIME type is set in your browser. The PDF format is created by Adobe and can be viewed outside of your browser if you have Adobe Acrobat Reader installed. Adobe Acrobat Reader can be downloaded from Adobe's web site at <http://www.adobe.com/products/acrobat/readstep.html>. If the PDF MIME type is not set in the browser, the browser "Save As" dialog box is invoked.
12. Export to Excel (\*.xls) exports a section to MS Excel and launches it inside your browser if the mime type has been set to recognize the XLS file extension. Thereafter, saving the file locally or manipulating the file is all done by way of the MS Excel application. If the mime type is not set to recognize the XLS file extension, you are prompted with a Save As Dialog and you must specify a local destination to save the XLS file for future viewing of the data with the MS Excel.
13. Export to Excek(\*.mhtml) exports a section to Microsoft Office 2000 Web Archive (.mhtml or mhtml). Also known as MS HTML, this archive type format is a standard for including objects in the same file as the HTML code (for example .gif or .jpeg files). Objects are encoded using the MIME HTML Internet standard. You might use this file format if you plan to e-mail the HTML as a single file.
14. Save preserves the file locally and launches the Interactive Reporting document (BQY) in the Interactive Reporting Web Client so that you can view and save the Interactive Reporting document (BQY) to your desktop for offline viewing. The Interactive Reporting document (BQY) can only be viewed by the full desktop or web client. If Interactive Reporting Web Client has not been installed, the browser is launched automatically.

## Navigation Toolbar

Section navigation controls on the toolbar are available to end users by using the Navigate Back, Navigate Forward, and Dashboard Home.

If the standard Interactive Reporting toolbar has been enabled, the Navigation toolbar is automatically disabled because it is a subset of the standard toolbar. However, the Navigation and Paging toolbars may be visible and enabled at the same time if the standard toolbar is disabled.

## Paging Toolbar

Depending on how a report was designed, you may see an abbreviated version of the <product Interactive Reporting toolbar referred to as the Paging toolbar. This version of Interactive Reporting toolbar contains the paging controls: Page Left, Page Up, Page Down and Page Right.

If the standard Interactive Reporting toolbar has been enabled, the Paging toolbar is automatically disabled because it is a subset of the standard toolbar. However, the Navigation and Paging toolbars may be visible and enabled at the same time if the standard toolbar is disabled.

## Shortcut Menus

Use shortcut menus to perform operations on objects that you need to update and maintain. Shortcut menus are context-sensitive menus that pop up.

For Windows users, shortcut menus are enabled by selecting an item and pressing [Shift] + [F10] on the keyboard, or by right clicking the mouse. If the shortcut menu is enabled on the keyboard, the menu opens at the upper, left most of the HTML frame.

If the shortcut menu is enabled by right clicking the mouse, the shortcut menu opens next to the cursor pointer where you right-clicked the mouse button within the selected area or on the item. Submenus derived from a shortcut menu are also available which group multiple and related commands. Once you make a selection from a shortcut or submenu, the menu is closed.

Keyboard Shortcut	Description
Arrow Keys	Moves the cursor up, down, left and right on the shortcut menu.
[Enter]	Confirms and accepts an action associated with a shortcut menu item.
[Esc]	Closes a shortcut menu that is opening. You can also perform this action by selecting or deselecting an item or pressing the [Tab] key.

## Alert Dialog

An Alert dialog shows informational messages explaining why the alert opens. You are required to acknowledge the alert before continuing since no other window can be active while it opens. To dismiss the alert, click **OK**.

## Interacting with Interactive Reporting Documents

This section describes how to work with an Interactive Reporting document (BQY):

- [Understanding Interactive Reporting Document Files](#)
- [Database Connection File \(OCE\) Selection For Interactive Reporting Document \(BQYs\)](#)
- [Accessing Interactive Reporting Document Files](#)
- [Working with Interactive Reporting Document File Sections](#)
- [Refreshing Interactive Reporting Document File Sections](#)
- [Dashboard Home](#)
- [Saving Interactive Reporting Document Files](#)

## Understanding Interactive Reporting Document Files

An Interactive Reporting document file (BQY) is centered on data from queries (either relational or OLAP) or from imported data. Any number of queries and Data Models can supply the data in an Interactive Reporting document file (BQY) . An Interactive Reporting document file (BQY)

can contain multiple queries with each query retrieving its data from a different database including: relational databases, imported data files, local files and OLAP servers. The Data Model aspects of the Interactive Reporting document file (BQY) are not visible to the end-user, but the ability to refresh data that come from these sources is. An end-user can duplicate an existing query or create a query based on an existing Data Model.

Once a Interactive Reporting document file (BQY) has been created, it is saved to EPM Workspace Repository located on the server.

When the user selects and retrieves a Interactive Reporting document file (BQY) from the Section pane, the emphasis becomes one of viewing, refreshing, and analyzing of the Interactive Reporting document file (BQY) instead of the query, Data Model, data layout, and report building of the Interactive Reporting document file (BQY) .

## Creating An Interactive Reporting Document File (BQY) From Another Interactive Reporting Document File (BQY)

You can create an Interactive Reporting document file (BQY) based on an existing Interactive Reporting document file. In this case, the new Interactive Reporting document file inherits the Interactive Reporting connection file (.oce) and sections associated with the original Interactive Reporting document file.

**Note:** To create a Interactive Reporting document file that uses another Interactive Reporting database connection file, or a new Interactive Reporting document file not associated with an existing one, see [Database Connection File \(OCE\) Selection For Interactive Reporting Document \(BQYs\)](#)

➤ To create an Interactive Reporting document file (BQY) based on an existing Interactive Reporting document file (BQY):

**1 Select File, and then New Document.**

Select a Task opens.

**2 Select Create an Interactive Reporting Document.**

Select Data Source opens.

**3 In the Data Source field, enter the name and path of the data source (Interactive Reporting document file (BQY), or click Browse to locate the file.**

For more information about the Browse feature, see [Selecting an Interactive Reporting Data Source](#)

**4 In the Create As field, select either Web Client or HTML.**

- **Web Client**—Creates the Interactive Reporting document file in Interactive Reporting Web Client using a connection file using a relational, CubeQuery, or OLAP Query data source.
- **HTML**—Creates the Interactive Reporting document file in EPM Workspace.

**5 Click Finish.**

A new Interactive Reporting document file (BQY) is created based on the selected Interactive Reporting document.

## Database Connection File (OCE) Selection For Interactive Reporting Document (BQYs)

An Interactive Reporting document files (BQY) can be created using an Interactive Reporting database connection file (.oce) selected by the user. See table below for Interactive Reporting database connection file (.oce) eligibility:

Interactive Reporting Database Connection File Type	Interactive Reporting Web Client	EPM Workspace
Relational	Yes	No
CubeQuery	Yes	Yes
OLAPQuery	Yes	No

► To create an Interactive Reporting document file (BQY) with an Interactive Reporting database connection file (.oce):

**1 Select File, and then New Document.**

Select a Task opens.

**2 Select Create an Interactive Reporting Document, and then click Next.**

Select Data Source opens.

**3 In the Data Source field, enter the name and path of the Interactive Reporting database connection file (.oce), or click Browse to locate the file.**

For more information about using the Browse feature, see [Selecting an Interactive Reporting Data Source](#).

**4 In the Create As field, select either Web Client or HTML.**

- **Web Client**—Creates the Interactive Reporting document in Interactive Reporting Web Client using a connection file using a relational, CubeQuery, or OLAP Query data source.
- **HTML**—Creates the Interactive Reporting document file in EPM Workspace. If you select an Interactive Reporting database connection field .oce from a relational, or OLAP Query data source, this option is not available.

**5 Click Finish.**

A new Interactive Reporting document file (BQY) is created based on the selected Interactive Reporting database connection file.



## Selecting an Interactive Reporting Data Source

Use the Select dialog box to choose an Interactive Reporting document file (BQY) or Interactive Reporting database connection file (.oce) on which to base a new Interactive Reporting document file (BQY).

➤ To select an Interactive Reporting data source:

- 1 In the **Look in** field, select the **Interactive Reporting document file (BQY) or Interactive Reporting database connection (.oce) from which to build a new Interactive Reporting document file (BQY)**

The folders and files shown on this dialog have been published to the EPM Workspace Repository.

The Name and Type fields display the file name and type (Interactive Reporting document file or Interactive Reporting database connection file).

- 2 To specify additional parameters, select **Options**.

The Open As and Version fields are displayed.

- 3 To create the Interactive Reporting document file in Interactive Reporting Web Client, select **Interactive Reporting Web Client**. To create a new Interactive Reporting document file in EPM Workspace, enter **HTML**.

The option(s) available in the Open As field depend on the Interactive Reporting database connection file. Interactive Reporting document files (BQYs) can be created by selecting an Interactive Reporting database connection file (.oce) in Interactive Reporting Studio and Interactive Reporting Web Client. In EPM Workspace, only an Interactive Reporting database connection file (.oce) for an Essbase query can be used to create a new Interactive Reporting document file. No Interactive Reporting database connection file (.oce) associated with a relational query can be used to create an Interactive Reporting document file in EPM Workspace.

- 4 In the **Version** field, verify the version information.
- 5 Click **OK**.

## Accessing Interactive Reporting Document Files

Use the following procedure to open and close an Interactive Reporting document file.

➤ To open an Interactive Reporting document file

- 1 Specify the URL of the EPM Workspace in your web browser.

The login dialog box opens.

- 2 Enter your user name and password and select **Login**.
- 3 Open an Interactive Reporting document file (BQY).

An Interactive Reporting document can be opened in the following ways

- From Explore, navigate to an Interactive Reporting document file and double click it

- Select the Interactive Reporting document file and click Open on the shortcut menu
- Select File, and then Open.
- Select Favorites and choose the Interactive Reporting document (if it has been added to Favorites)

The Interactive Reporting document file opens in EPM Workspace. If a Dashboard section has been included in the Interactive Reporting document file, it opens in creation date order. Typically, a Dashboard section is shown first. If no Dashboard section has been included, the Interactive Reporting document file opens on the last saved section. If the last saved section is a Query or Data Model, or fails for some other reason, the Interactive Reporting document file attempts to open the next section from the Sections pane, working from the top to the bottom of the Sections pane until a section can be displayed.

► To close an Interactive Reporting document file (BQY) , select **File**, and then **Close**.

If you have modified an Interactive Reporting document file, you are prompted to save any changes.

## Saving Interactive Reporting Document Files

To ensure that changes made to a Interactive Reporting document file are preserved after you have performed an analysis on it, use the Save features. The Save features in EPM Workspace enable you to save an Interactive Reporting document file to the EPM Workspace Repository (importing). To save an Interactive Reporting document file locally (offline analysis), see [Exporting an Interactive Reporting Document File in Native File Format](#).

When you modify an Interactive Reporting document (BQY) or an Interactive Reporting document job, you can save the changed Interactive Reporting document to the EPM Workspace Repository. The EPM Workspace Repository is an efficient way to manage Interactive Reporting document file, and distribute Interactive Reporting document files over a wide network for end-user query and reporting.

Saving the Interactive Reporting document file to the EPM Workspace Repository can be made either by saving it with changes to the original document (Save option), or by saving the Interactive Reporting document file, as a new document (Save As). If you do not have permission to overwrite an Interactive Reporting document file, use the Save As feature.

## Using the Save Command

Use the Save command to save the changes to the Interactive Reporting document file that you have permission to write to.

- To save an Interactive Reporting document file to the EPM Workspace Repository, select **File**, and then **Save**.



**Optional:** You can also click

## Using the Save As Command

Use the Save As command to save the changes you have made to the Interactive Reporting document file when you do not have permission to overwrite the Interactive Reporting document file, or you simply want to save and rename it with your changes.

- To save as to the EPM Workspace Repository:

- 1 **Select File**, and then **Save As**.
- 2 Type the name of the Interactive Reporting document file in the **Name** field.
- 3 Type a description of the Interactive Reporting document file in the **Description** field.

- 4 Click .

## Working with Interactive Reporting Document File Sections

Interactive Reporting documents are files created and used to retrieve information from a database, analyze the information, and build reports. Since <product Interactive Reporting document files are integrated query, analysis, and reporting tools, these documents have multiple sections, each of which governs one part of the query and reporting refresh. You create sections progressively as you query a database, retrieve results, and then generate reports.

Interactive Reporting document files are divided into multiple sections, each of which governs one step of the reporting procedure. Interactive Reporting document file sections are created progressively when a database is queried, results are retrieved, and reports are generated.

Each section occupies an independent window and performs distinct operations. You can move back and forth between sections at any time to rebuild your query or alter your result data. You can also position sections side-by-side in a Dashboard section.

The end-user does not need to have a strong technical understanding of databases. Data Model sections are not available, and these sections are not visible in the Sections pane. Each section occupies an independent window in the browser and shows discrete views of data. For example, the Pivot section resembles a spreadsheet or crosstab report that lets you perform drill down analysis of different data relationships. The Chart section graphically depicts summaries, trends, and relationships in your data.

When an Interactive Reporting document file is opened, the default home page is the Dashboard section. If the Dashboard Home section cannot be displayed, then the Interactive Reporting document file opens on the last saved section. If the last saved section is a Query or Data Model

(which are not listed in the Section Navigation drop-down menu), or fails for some other reason, then the Interactive Reporting document file attempts to open the next section from the Sections pane, working from the top to the bottom of the Sections pane until a section can be displayed.

For more information on using Interactive Reporting document file sections, see:

- [Sections Pane](#)
- [Selecting Interactive Reporting Document File Sections](#)
- [Adding Sections](#)
- [Moving Between Sections](#)
- [Duplicating Sections](#)
- [Renaming Sections](#)
- [Deleting Sections](#)
- [Refreshing Interactive Reporting Document File Sections](#)
- [Printing Sections](#)
- [Dashboard Home](#)

## Sections Pane

The Sections pane shows the sections available in the current Interactive Reporting document file:

- **Dashboard**—Upon opening an Interactive Reporting document file, a customized Dashboard section can appear as the Interactive Reporting document file front-end. Each button selection, item selection, or navigation sequence can invoke a script. Behind the scenes, Interactive Reporting refreshes the Dashboard script commands that can perform actions such as retrieve data, populate controls, hide objects, navigate to different sections, and specify report parameters
- **Report**—Displays high-quality and professionally designed reports. These reports can span anywhere from a complex critical operational report to a results set, a Chart, and a Pivot table. Use the reports to help you evaluate your business, expand communications, and assist in the decision-making process
- **Query**—Foundation of the Interactive Reporting document, the Query section enables you to connect to a relational database, OLAPQuery (query section specifically designed for connecting to multidimensional databases), and CubeQuery (query section exclusively designed for connecting to and querying Essbase 9.x or greater databases).
- **Results**—Retrieves data to your document and displays it in the Results sections as columns in a table
- **Pivot**—Interactive table that quickly summarizes, or cross-tabulates, large amounts of data. You can rotate its rows and columns to see different summaries of the source data, or display the details for areas of interest.
- **Chart**—Fully interactive, two- or three-dimensional view of your data that provides powerful ways to visually analyze your data

- **Table**—Single-dimension report that displays your data in columns. Tables are often used as building blocks in other sections

By default, an Interactive Reporting document file has at least one Query section and one Results section. Each section occupies an independent window and performs distinct operations.

You can move back and forth between sections at any time to rebuild your query or alter your result data.

## Selecting Interactive Reporting Document File Sections

Sections associated with the Interactive Reporting document file are shown in the Sections pane.

- To select a section, click the desired section from the Sections pane.
- To scroll up and down through a section, use the scroll bar on the right side of the browser.

## Adding Sections

A new section is added based on an existing query and results set.

- To insert a new section in an Interactive Reporting document file, select **Actions**, then **Insert**, and then **(New Section)**.

For example, to insert a new Chart, select **Actions**, then **Insert**, then **Chart**.

Interactive Reporting inserts the new section and adds a new section label to the Sections pane. The section label is based on the type of section added. A sequence number is added to the section label if a section with the same name already exists.

## Moving Between Sections

Although each section occupies an independent window and performs distinct operations, you can move back and forth between sections at any time to rebuild your query or alter your results data. You can also position sections side-by-side in multiple windows.

You can easily navigate between sections to work on queries, results, and reports.

- To move between sections, select the desired section from the Sections pane. If necessary, use the up and down scrollbar to vertically through the Sections pane.

## Duplicating Sections

A section that has been duplicated retains all of the content and formatting of the original section. In addition a new section is added to the Sections pane. The new section label is based on the original section label, but a sequence number is appended to the label. For example, if you

duplicate a section named SalesChart three times, the Sections pane shows: SalesChart, SalesChart2, SalesChart3, and SalesChart4.

- To duplicate a section, select the section to duplicate in the Sections pane and select **Duplicate** on the shortcut menu.

You can also duplicate a section by selecting a section from the Sections pane and choosing **Edit, then Section, then Duplicate**.

## Renaming Sections

The first section that you create is given the default section name, for example, Query or Results. When you insert new sections of the same type as those that already exist, they are numbered sequentially, for example, Query2, Results2, and so on. To assign sections different or unique names based on your application, use the Rename command.

- To rename a section:

- 1 In the Sections pane, select the section name to rename.
- 2 On the shortcut menu, select **Rename**.

You can also select the section to be renamed and choose **Edit, then Edit, and then Rename**.

The Input Section Name dialog box opens.

- 3 Type the new name for the section and click **OK**.

## Deleting Sections

You can delete a section, but do so with care. Some sections are dependent on other sections. Deleting one section could also delete one or more sections that you did not want to delete. Note that you cannot restore a deleted section.

- To delete a section:

- 1 In the Sections pane, select the section to be deleted.
- 2 On the shortcut menu, select **Delete**.

You can also select the section and choose **Edit, then Section, and then Delete**.

The Confirm Deletion dialog box opens.

- 3 Click **OK**.

## Dashboard Home

Upon opening a document, a customized Dashboard section can be displayed as the Interactive Reporting document file front-end. Each button selection, item selection, or navigation sequence can invoke a script. Behind the scenes, Interactive Reporting refreshes the Dashboard

script commands that can perform actions such as retrieve data, populate controls, hide objects, navigate to different sections, and specify report parameters.

- To display Dashboard Home, click .


## Refreshing Interactive Reporting Document File Sections

You refresh a section to retrieve the most current data set from the database to Interactive Reporting document file. The Refresh command can be used in any of the query reporting sections. Once the data set has been refreshed in one section, all sections attached to the Interactive Reporting document file are refreshed as well.

By default, the Refresh Current command (refreshes the current object) in all sections except the Dashboard and the Report sections. In some cases more than one query may be refreshed, if for example, a report references results sets from multiple queries.

In the Dashboard and Report sections, the Refresh All command to refresh all queries in the Interactive Reporting document file is used. Although queries are not visible in to the end-user, they are executed in the order in which they display in the section catalog in the full client version. For example, in an Interactive Reporting document file with three queries, Query1, Query2, and Query3, the queries are executed in that order when the Refresh All command is selected.

If a variable filter has been set for the query by the designer of the <product Interactive Reporting document file, the filter selections must be resolved before the query is refreshed. At that time the user is prompted to select or enter filter values and complete the constraint.

- To refresh a section, click .

## Printing Sections

When you print a section, it is printed to a PDF file and launched inside your browser if the PDF MIME type is set in your browser. The PDF file can be viewed online, or printed if you need a hard copy of a report.

The PDF format is created by Adobe and can be viewed outside of your browser if you have Adobe Acrobat Reader installed. Adobe Acrobat Reader can be downloaded from Adobe's web site at <http://www.adobe.com/products/acrobat/readstep.html>. If the PDF MIME type is not set in the browser, the browser "Save As" dialog box is invoked.

**Note:** A Query section cannot be printed.

- To export an Interactive Reporting document file to PDF, select **File**, then **Print**, and then **PDF**.

**Optional:** You can also print a section by clicking .

**Tip:** Printing a section and Exporting a Section as a PDF are equivalent features.

## Exporting Data

Interactive Reporting document files can be exported in several formats, including:

- [Exporting a Section as a .PDF](#)
- [Exporting a Section to MS Excel \(.XLS\)](#)
- [Exporting an Interactive Reporting Document File in Native File Format](#)

### Exporting a Section as a .PDF

Exporting a section to Portable Document Format (.PDF) allows you to preserve the layout and format of the original section and transfer it across multiple platforms (such as Windows, UNIX and the Macintosh). It also enables you to save, print and distribute the file easily and effectively.

To display and print a PDF file you must have Adobe® Acrobat® Reader™ installed. Acrobat Reader is a self-contained application that can behave as an Internet Browser plug-in or as a stand-alone application.


Acrobat Reader enables you to view, print and share a PDF file, but does not enable you to create or modify it. The Acrobat Reader is free and can be downloaded from Adobe's web site.

When the Acrobat Reader has been installed, you might have to configure your browser to use it. For example you may need to associate Acrobat Reader as the application to read PDF files, or have the PDF display in a separate window instead of the same window. You open a PDF file by double clicking the PDF in the Explore module.

To save a PDF to your desktop for offline viewing, click the Acrobat Reader Save as Copy icon on the Acrobat Reader toolbar. You are prompted to specify the directory in which to save the file.

To print a PDF, click the Acrobat Reader Print icon. You are prompted to specify print parameters and to print the report.

If the Acrobat Reader has not been installed, the File download dialog opens. You can save the file to disk and open it from a location that you specify.

► To export an Interactive Reporting document file to PDF, click the .

**Optional:** You can also print an Interactive Reporting document file to PDF by selecting **File**, then **Print via PDF**.

### Exporting a Section to MS Excel (.XLS)

You can export a section to Microsoft Excel and launch it inside your browser if the mime type has been set to recognize the XLS file extension. From this point, you can save the file locally and work with the data directly in the Microsoft Excel application. If the mime type is not set to



recognize the XLS file extension, you are prompted with a Save As Dialog and must specify a local destination to save the XLS file for future viewing of the data with the Microsoft Excel.

**Note:** If you need to export a section to MS Excel in Web Archive format, you must use EXCEL 2002( Office XP) or EXCEL 2003.

➤ To export an Interactive Reporting document file to Excel (XLS):

**1 Click Export to XLS.**

If the mime type has been set to recognize the section, it is launched automatically in Microsoft Excel.

If the XLS file extension is not recognized, the Save As dialog box opens. Complete Step 2.

**2 If desired, enter a new name for the section in the File Name field.**

**3 Select Microsoft Excel Workbook (.XLS) in the Save as Type field.**

**4 Select Save.**

## Exporting an Interactive Reporting Document File in Native File Format

When an Interactive Reporting document file is exported in native file format, the EPM Workspace checks if the Interactive Reporting Web Client has been installed and if so, launches the Interactive Reporting document file in a browser. The Interactive Reporting Web Client is a special application file placed in a web browser's plug-in directory. Plug-ins add seamless functionality to a web browser, enabling the browser to open a plug-in's particular file type as if it were an HTML file.

Any changes made to the Interactive Reporting document file are *not* replicated to the original Interactive Reporting document file selected from the document list in the EPM Workspace Repository (which resides on the server and can only be changed by importing the Interactive Reporting document file again).

➤ To export a file in native file format, select **File**, then **Export**, and then **Native File Format**.

If the Interactive Reporting Web Client has been installed, make any desired changes and save the document to the EPM Workspace Repository. If you do not have permission to overwrite the Interactive Reporting document file, use the Save To Repository As command to rename the Interactive Reporting document file and save it to the repository.

If the Oracle's Hyperion® Interactive Reporting Web Client has not been installed, the File Download dialog box opens. You can either open the Interactive Reporting document file from its current location, or you can export the file to disk and open it from an alternate location.

# Query Section

The Query section is the foundation of any Interactive Reporting document file. An Interactive Reporting document file can contain multiple Query sections that can access a wide range of data sources (relational databases, OLAP servers, imported data sets, and local joins). Each Query section has its own Results section and can be associated with the same database or different databases (that is, the connection file or data model used is defined independently in each query).

This section includes the following topics:

- [Interactive Reporting Database Connection Files \(OCEs\)](#)
- [Data Model](#)
- [Topics and Topic Items](#)
- [Query Restrictions](#)
- [Working with Queries](#)
- [Working with Items on the Request Pane](#)
- [Adding a Computed Item in Query](#)
- [Computed Items and Data Functions](#)
- [Data Functions](#)
- [Applying A Query Filter](#)
- [Applying Query Sorts](#)
- [Refreshing a Query](#)

## Interactive Reporting Database Connection Files (OCEs)

Whenever you use Interactive Reporting to query a relational database and retrieve information, the Interactive Reporting database connection file and data model are used to interact transparently with the database. The Interactive Reporting database connection file and data models are not visible to the end user in the EPM Workspace.

The Interactive Reporting connection file encapsulates and stores connection information used to connect Hyperion applications to a database. Interactive Reporting database connection files specify the database API (ODBC, SQL\*Net, etc.), database software, the network address of the database server, and your database user name. An end-user can specify the Interactive Reporting database connection file and database password and logon. It is required for an Interactive Reporting document file (BQY) to reference live information from the database.

## Selecting an Interactive Reporting Database Connection File (.OCE)

- To select an existing Interactive Reporting database connection file (.oce)
  - 1 **Navigate to the folder in which to place the file.**
  - 2 **Select File, then Import, and then File.**

- 3 Click **Browse**, navigate to the folder where the desired Interactive Reporting connection file is located, select the file and click **Open**.

The name of the selected Interactive Reporting connection file populates the File field on the Import dialog box.

- 4 Click **Next**.

The second Import dialog box opens.

- 5 Specify any user name, password, and metadata information and click **Finish**.

For more information on these settings, see “Setting Processing and Metadata Options.”

## Data Model

You use a data model to interact with a database to create queries that specify which data to fetch from the database.

Data models make the database more accessible because they display database tables graphically as topics. They also:

- Substitute descriptive names for arcane database table and column names. Create custom views of the data.
- Add computed fields for performing calculations on the retrieved data.

Data Models are not visible in EPM Workspace. If a master copy of a data model has been associated with a query, you can link a query to it. See [Inserting a New Query](#).

## Topics and Topic Items

Topics are a visual representation of tables in a database. They are logical groupings of related information about a particular facet of your business, such as Customer or Sales. A list of topics is shown in the Catalog list

A topic item is an individual items in a topic or metatopic.

You build queries by adding topics from the Catalog list to the Request pane. You can also drag and drop any topic item to the Request pane. When you refresh a query, data for all the topic items present on the Request pane are returned.

## Query Restrictions

These Query features are either unavailable or restricted in scope in EPM Workspace

- The Query Log and Custom SQL options are not available.
- A subquery is indented in the Section pane, but it is displayed as a regular query in EPM Workspace. A subquery cannot be added in EPM Workspace.
- If an Interactive Reporting document file contains a union query, the first query is displayed. The Request and Filter panes in the Data Layout for the union query are read-only. In

addition, there is no Union Controller line. A new Union Query section cannot be created in EPM Workspace.

- Local Results can be displayed, but a new local result table cannot be created in tEPM Workspace.
- Derived queries can be displayed, but a new derivable query cannot be created in EPM Workspace.

## Inserting a New Query

Use the Insert New Query dialog box to select the master data model for a relational query. Additionally if the Interactive Reporting document file (BQY) contains a query associated with an Essbase data source, you can select the Interactive Reporting database connection file (.oce) .

**Note:** If the Interactive Reporting document file (BQY) contains only a relational query and no master data model, the Insert New Query dialog box is not available. In the case where a Interactive Reporting document file (BQY) contains a relational query linked to a master data model, and an Interactive Reporting database connection file (oce) associated with a CubeQuery, all options on the Insert New Query dialog box are available. Note that master data models are not available for a multidimensional Interactive Reporting database connection file (.oce).

► To insert a new query with a master data model:

- 1 **Select Actions, then Insert, and then Query.**

The Insert New Query dialog box is displayed.

- 2 **Check Master Datamodel and select the master data model to link to the query.**

The master data model is a prebuilt, custom view of a database. The benefit of data models is that any changes to the master data model gets propagated to all dependent queries that are based on the master data model.

- 3 **Click OK.**

► To select the Interactive Reporting database connection file (oce) associated with Essbase:

- 1 **Check Existing Essbase Connection and select the database connection file (.oce).**

- 2 **Click OK.**

## Working with Queries

All Query sections in the Interactive Reporting document file are displayed in the Section pane. For each Query section, you can build a query by adding topics to the Request pane. You can also apply filters to the data, or specify columns by which to sort the data that is returned from the database.

## Building Queries

You build queries by selecting the data you want to retrieve from a visual representation of the database. Once you have selected the items to include in the query and refresh it, a results set is generated.

EPM Workspace offers three query methods for building queries:

- Duplicate and modify an existing Query section, which has been provided to you in the Section pane
- Link to a predefined data model, known as a Master Data Model (if the appropriate adaptive states have been granted)
- Select an Interactive Reporting database connection file (.oce) used to query an Essbase database

➤ To build a query by linking to a Master Data Model:

**1 Select Actions, then Insert, and then Query.**

**2 Select a master data model and click OK.**

The Request, Filter and Sort panes are displayed.

**3 In the Catalog list, expand the Tables by clicking +.**

A list of topics is displayed.

**4 Expand a topic to view topic items by clicking +.**

**5 Drag a topic item to the Request pane.**

**Optional:** You can also select the topic item in the Catalog list and click **Add to Request** on the shortcut menu.

**Tip:** You can also select a topic item and select **Add Selected Items** in the Catalog list or select **Actions then Add to Request**.

**Optional:** To add an entire a topic to the Request pane, select the topic and drag it to the Request pane.

**6 To apply a sort, drag a topic item from the Request pane to the Sort pane.**

For more information, see [Applying Query Sorts](#).

**7 To apply a filter (limit), drag a topic item to the Filters pane.**

For more information, see [Applying A Query Filter](#).

**8 Select .**

If you add more items than the Request pane can display, resize the browser.

- To duplicate a Query section, select the query to duplicate in the Sections list, and choose **Duplicate** on the shortcut menu.

EPM Workspace duplicates the section and adds a new section label to the Sections pane. The new section label is based on the original section label, but a sequence number is appended to the label. For example, if you duplicate a section named SalesChart three times, the Sections pane shows: SalesChart, SalesChart2, SalesChart3, and SalesChart4.

## Working with Items on the Request Pane

As you build your query, you can add and remove item to and from the Request pane. This allows you to change the way in which the query refreshes and displays.

- [Adding Request Items](#)
- [Removing Request Items](#)

### Adding Request Items

Queries are built by adding topic items from the Catalog list to the Request pane.

- To add a topic item to the Request pane, select the topic item in the Catalog list and choose **Add to Request** on the shortcut menu.

### Removing Request Items

You can remove items in the Request pane to exclude the data from your query or results set.

- To remove an item from the Request pane, choose the desired item and select **Delete** on the shortcut menu.

Dependent sections that use the item are not affected by the removal of an item until the query is refreshed.

**Note:** Remove items with caution as a computed item or report may draw data from the item that you delete.

## Picture (BLOB Image) Support

Pictures can be queried from a relational database if they are image data collected as a BLOB data type and stored as a binary unit in the database management system with ODBC connections. BLOB image files available to include: .JPEG, .BMP, .GIF, and .PNG image formats. Pictures can be dragged and dropped from a query table to the request line, displayed as strings in columns in the Results and Table sections, or shown graphically in the bands of the Report section. Dashboard developers can select images from results sets, not just static images from the file system.

The following restrictions apply to BLOB images in Interactive Reporting:

- The ODBC connection must use a server-defined join
- It is not possible to determine the data type of an image in advance

See also:

- [“Adding Pictures in Query” on page 127](#)
- [“Working with Pictures in Results and Tables” on page 127](#)
- [“Working with Pictures in Reports” on page 127](#)

## Adding Pictures in Query

In the Query section, once BLOB images are retrieved as pictures, they are treated like any other table topic item. They can be dragged and dropped from the table directly to the request line. Only pictures in tables that have a primary key defined are included in a query. Pictures cannot be sorted in the Query section. If you add a non-BLOB image to the request line, a broken link to the image is displayed in the report section.

## Working with Pictures in Results and Tables

A column is displayed in the Results and Table sections for every picture with a BLOB data type on the request line. Descriptive text is displayed instead of the image in each cell in the format <<Picture:unique id>>. The unique id is tooltip text if any has been specified, otherwise, the unique id is the primary key value.

## Adding Pictures in Computed Items

A picture function is available in Computed Items so that you can associate an image with a computed column. In the Results and Table section, the picture is shown as descriptive text instead of the image in each cell in the format <<Picture:unique id>>. The unique id is tooltip text if any has been specified, otherwise the unique id is the Resource name. In the Reports section, the computed item containing the picture can be shown graphically, For example you could use an “if else” statement to show an image if a certain set of conditions are met, and another criteria if the condition is not met:

```
:if (Amount_Sales >= 10000) {Picture ("C:\\graphics\\smile.gif" )}
                                                                    else{Picture("C:\\
graphics\\crying.gif" )}
```

## Working with Pictures in Reports

The Report section can include pictures obtained from the database (BLOB data types) by using an embedded object (Results and Tables) or it can use static images from the Resource Manager. Pictures can be dragged from the Catalog and dropped into the report layout components: report table report body report group header report page header of footer. You cannot drag a picture into a Table Facts column. Once a picture has been added to the report, all images are sized to fit the bounding rectangle defined in the report, and pictures can be resized as needed. Pictures are sorted by the their underlying textual unique id (i.e. the text displayed in a table/result

section), which is particularly useful when they are added to the report group headers (via outliner).

## Adding a Computed Item in Query

In the Query section, a computed item is a set of instructions to the database server. EPM Workspace uses the computing power of the database server to perform calculations as it retrieves data from the database.

For this reason, the Query section allows you to use computed items in a way that is not possible in the other sections. Instead of creating a new data item, the new values simply replace the original values in the data item as they are retrieved from the database.

Additionally, you can compute items using any topic item in the data model and any scalar functions provided by your RDBMS.

**Note:** You are unable to add computed items through shortcut menu in EPM Workspace. At least one Results or Table column must be present to enable the right-click (shortcut) menu which contains the option to add or modify a computed item. When no columns are present, select the menu option Actions, and then Add Computed Item to create a computed item.

► To create a computed item in the Query section:

**1 Select an item in the Request pane and choose Actions, and then Computed Item.**

The Computed Item dialog box is displayed.

**Optional:** You can also select a request item and choose **Add Computed Item** on the shortcut menu. At least one Results or Table column must be present to enable the shortcut menu which contains the option to add or modify a computed item. When no columns are present, you must select the Add Computed Item from the Actions menu.

**2 Enter a name for the computed item in the Name field.**

The default name is *Computed*, which is numbered sequentially if there is more than one computed item. If you assign a name to a computed item that is identical to an existing scalar function name, EPM Workspace numbers the name starting with the number 2.

**3 Select the data type of the computed item to build from the Data Type list box.**

See also [“Adjusting Data Types” on page 129](#).

**4 Enter the definition of the computed item in the Definition text box.**

- See [“Operators” on page 130](#).
- Click **Reference** to display the Reference dialog box, and select items to place in the equation. See also [“Reference” on page 133](#).

You can also type any portion of the equation or the entire equation directly into the Definition text box using JavaScript. The names are case sensitive, and you must replace spaces in item names with underscores (`'_'`).



## 5 When the equation is complete, click **OK**.

In the Query section, the computed item is displayed on the Request pane with its new name. When the query is refreshed, the computed item is listed in the Results Data Layout pane, and it is displayed as a column in the results set.

## Adjusting Data Types

Since computed items are new data items, confirm or change the data type of the item to preserve the precision of a mixed-data type computations, or to change the way a data item is handled (for example, interpreting number as strings). This ensures the correct handling of data in server computations.

Attention to data types is most important when computing items in the Query section. Here the computation is performed on the database server, and the computed item may be handled with an unanticipated data type.

Local calculations (Results or Pivot) are handled internally, and adjustment between 16- and 32-bit integers can be handled safely using the automatic or number data type specification.

Since computed items are new data items, confirm or change the data type of the item to preserve the precision of a mixed-data type computations, or to change the way a data item is handled (for example, interpreting number as strings). This ensures the correct handling of data in server computations.

Local calculations (Results or Pivot) are handled internally, and adjustment between 16- and 32-bit integers can be handled safely using the automatic or number data type specification.

**Table 28** Data Type Specifications

Data Type	Specification
<b>Automatic</b>	A data type is determined automatically given the data type of the reference items and the computations performed
<b>BLOB</b>	Binary large object which is truncated at 64,000 bytes. Blob data types can include image formats such as: jpeg, bmp, gif, and png.
<b>Byte</b>	Variable data type of length determined by a single byte of computer storage. Bytes can store numeric values from 0 to 255, or a single text character
<b>Date</b>	Calendar date in server default format (typically mm/dd/yy)
<b>Integer (16-bit)</b>	Retains a 16-bit value (2 bytes). A 16-bit integer stores integer values from 0 to 16,777,216, and signed integers between +8,388,608 and -8,388,608
<b>Integer (32-bit)</b>	Retains a 32-bit value (4 bytes). A 32-bit integer has a range of 0 to 4,294,967,296 if unsigned. If signed, -2,147,483,648 to 2,147,483,647.
<b>Long Text</b>	Character data (long text) exceeding 255 bytes (use the string data type for text strings up to 255 characters). The maximum long text retrieved is 4000; characters anything greater than that is silently truncated
<b>Packed Real</b>	Real numbers packed for use with EDA middleware. The results in Interactive Reporting are the same as real numbers
<b>Real</b>	Decimal numbers up to 5 positions right of the decimal

Data Type	Specification
String	Text strings to a maximum length of 256 characters
Time	Time in format set by user preference
TimeStamp	Date/time combination in format set by user preference

## Operators

You can add operators in the Computed Item dialog box to add arithmetic or logical operators to a computation in the Definition text box. Operators are added at the insertion point. You can use any of the following types of operators:

- [Arithmetic Operators](#)
- [Comparison Operators](#)
- [Statements](#)
- [Logical Operators](#)

The following guidelines are applicable when using operators:

- Type the word null (no quotes) into the Expression text box to represent null values.
- Enclose all text string constant values and date constant values entered in expressions in single quotes. (Numbers can be entered without quotes.)
- To join items with a space or other character, reference or type items and strings into the Expression text box and join them with the + operator (for example, City + ', ' + State). To join without additional characters, use the Concat function.
- In division operations, the divisor may not be null or equal to zero. If a data item serves as the divisor in an expression (for example, 5000/Units\_Sold) and includes null or zero values, first create a computed item using if/else logic to remove null and zero values, and then compute the item containing the division operation.
- Two date items can be subtracted, but not added. The Add Month function adds an integer value to a date.
- You cannot nest functions inside the Sum, Cume, Chr, and Breaksum functions.

## Arithmetic Operators

Arithmetic operators take numerical values (either logical or variables) as their operands and return a single numerical value.

**Table 29** Arithmetic Operators

Operator	Name	Used at the:
+	Add	Server level and the local metatopic level for all sections
-	Subtract	Server level and the local metatopic level for all sections

Operator	Name	Used at the:
*	Multiply	Server level and the local metatopic level for all sections
/	Divide	Server level and the local metatopic level for all sections
(	Begin suboperations	Server level and the local metatopic level for all sections
)	End suboperations	Server level and the local metatopic level for all sections
++	Increment	Server level and the local metatopic level for all sections except the Query section
--	Decrement	Server level and the local metatopic level for all sections except the Query section
<b>Mod (%)</b>	Modulus The modulus operator returns the remainder of dividing var1 by var2. For example, 5% 4 returns 1.	Local metatopic level only

**Tip:** If a computed item is displayed on a Request pane, and the definition of item uses subtraction, such as "Mytable.Column1-5", a SQL error can occur. The exact error depends on the database, but the most common error indicates an undefined name was used. Because databases allow hyphenated names, Interactive Reporting attempts to deal with such names intuitively. Thus, an item definition like "Mytable.Column1-5" is interpreted as a name. In order to ensure it is treated as subtraction, include a space on either side of the hyphen/subtraction operator. For example, entering the computed item definition as "Mytable.Column1 - 5" ensures that the correct SQL is generated.

## Comparison Operators

A comparison operator compares its operands and returns a logical value based on whether the comparison is true. The operands can be numerical or string values. When used on string values, the comparisons are based on the standard lexicographical ordering.

**Note:** The comparison operators in the following table are only available at the local metatopic level. For the examples in the table *var1* has been assigned the value 3, and *var2* has been assigned the value 4.

**Table 30** Comparison Operators (Local Metatopic Level)

Operator	Return "true" if the:
==	Operands are equal For example, 3 == var1
!=	Operands are not equal For example, var1!= 4

Operator	Return "true" if the:
<	Left operand is less than the right operand For example, var1 < var2
<=	Left operand is less than or equal to the right operand For example, var <= var2, var2 <= 5
>	Left operand is greater than the right operand For example, var2 > var1
>=	Left operand is greater than or equal to the right operand For example, var2 >= var1, var1 >= 3

## Statements

Executes a set of statements if a specified condition is true. If the condition is false, another set of statements can be executed.

**Table 31** If...else statement

Statement	Description
<b>if...else</b>	<p>if executes a set of statements if a specified condition is true. The specified condition may be another statement and can include other nested if statements. Braces, {}, must enclose multiple statements. If the condition is false, another set of statements can be executed if the optional else statement has been included in the script.</p> <p>A sample <i>if ... else</i> statement looks like this:</p> <pre> if (condition) { statements1 } else { statements2 } </pre>

## Logical Operators

Logical operators take Boolean (logical) values as operands and return a Boolean value.

**Table 32** Logical Operators

Operator	Description
<b>AND (&amp;&amp;)</b>	<p>Connects two conditional expressions and retrieves records only if each expression is true.</p> <p>Computed items are not retrieved if any condition belonging to a conditional expression is false. The AND logical operator is usually nested within another conditional expression, for example, expressions which use if and else statements. For example:</p> <pre> if ((OS == 'Windows') &amp;&amp; (Item type == 'Modem')) {'Windows'} else {'other'} </pre>

Operator	Description
<b>OR (   )</b>	<p>Specifies a combination of expressions and retrieves records that include at least one of the expressions. For example, if one of the words is Washington or Oregon, every record with the expression "Washington" and every record with the word "Oregon" is included.</p> <p>Typically the OR (   ) is nested within other conditional expressions, for example, expressions which use if and else logical operators. For example if you want to assign Washington and Oregon to the "Northwestern Region" and all other states to "Other Regions", enter:</p> <pre>if ((State = = 'Washington')     (State == 'Oregon')) {'Northwestern Region'} else {'Other Regions'}</pre>
<b>NOT (!)</b>	<p>Computes and shows items more accurately stated in a negative way. In effect, all records are retrieved except those that fulfill the conditional expression.</p> <p>You enter the conditional expression with the NOT (!) logical operator preceding the conditional expression. The conditional expression can be a simple value or nested within other conditional expressions, for example, expressions using AND and OR.</p> <p>A combined condition expression that uses NOT is true if the conditional expression following NOT is false. A combined conditional expression is false if the conditional expression following NOT is true.</p> <p>For example, suppose you are looking to list all states that are not in the Northwestern region. In this case, enter the conditional expression:</p> <pre>if ( ! (State = = 'Northwestern Region')) {'Other Regions'}</pre>

## Reference

Use the Reference dialog box to select the topics and topic item from which to build the computed item definition.

The Reference dialog box is split between topics in the left pane and topic items in the right pane. The topics displayed in the left pane are derived from the topics in the Request pane. The items displayed in the right pane are the values which make up each topic. Before you can select a topic to use in a computed item expression, you must select it and a topic item.

## Computed Items and Data Functions

Computed items and data functions are fundamentally different, and the functions available in the Computed Item dialog box do not calculate data in the same way as data functions.

- Computed items calculate a fresh value for each original value, based on the computation (for example, *Revenue* calculated from *Price* and *Units Sold*). The new values are part of a new data item or replace the original values. Computed items *never* reduce the original number of records.
- Data functions, by contrast, summarize groups of database records and replace the original values with new summary data. Because data functions summarize values, the number of records are frequently reduced.

## Data Functions

Data functions compute aggregate values, including averages, maximums, counts and other statistics. These functions summarize groupings of data. You can use data functions to aggregate and compute data from the server before it reaches the Results section, or compute different statistics for aggregated Results totals and report items.

The effects of data functions are most dramatic in the Query section. For example, Dollars is an item of sales transaction records for your stores in London and Madrid. You can apply a data function to this item, consolidate the data, and calculate sum totals, average sale values, number counts of individual sales records, or minimum sale values with respect to each city, once the data is retrieved to Results.

► To apply a data function, select the item or column, and choose **Data Function** on the shortcut menu.

**Optional:** You can also select the item or column and choose **Actions**, then **Data Function**, and select the (function).

**Table 33** Data Functions

Function	Returns	Availability
<b>None</b>	Unaggregated values as stored in the database. This is the default in Query.	Query
<b>Sum</b>	Sum of underlying values. This is the default in Results and report sections.	All
<b>Average</b>	Average of underlying values	All
<b>Non-Null Average</b>	Average of underlying values; null values excluded	Pivot, Chart, Report
<b>Minimum</b>	Lowest of underlying values	All
<b>Maximum</b>	Highest of underlying values	All
<b>Count</b>	Number of underlying values	All
<b>CountDistinct</b>	Number of distinct values in a column. This function is not supported by all database servers	Query
<b>Null Count</b>	Number of nulls among underlying values	Pivot, Chart, Report
<b>Non-Null Count</b>	Number of underlying values; null values excluded	Pivot Chart, Report
<b>Standard Deviation</b>	Standard deviation of values. This function is not supported by all database servers.	Query
<b>Variance</b>	Variance of values. This function is available through Oracle servers only.	Query
<b>Weight</b>	Use for computing weighted items in Pivot reports.	Query
<b>% of Column</b>	Sum of all underlying values as a percentage of their respective surface column	Pivot
<b>% of Row</b>	Sum of underlying values as a percentage of their respective surface row	Pivot
<b>% of Grand</b>	Sum of underlying values as a percentage of all surface values in the report	Pivot, Chart

Function	Returns	Availability
<b>% of Category</b>	Group total percentage of the selected value	Report
<b>Increase</b>	Calculates the increase between the previous two rows or columns	Pivot
<b>%Increase</b>	Calculates the percentage increase between the previous two rows or columns	Pivot
<b>Title</b>	Column names	Report

Null values are empty values for which no data has been specified; null values are not equal to zero.

## Applying A Query Filter

When building a query, you usually do not want to see information associated with every product. Instead you want to see information that relates only to a specific product or product line. Similarly, you may not want to see this information for every year the product has been available, but only for recent periods.

When you set a filter in the Query section, data is returned from the database only if it meets the specified conditions. For example, suppose you only want to see your most important customers who spend more than \$400,000 per year, or who buy gardening products in the Midwest. By applying a filter you are instructing the database to “give me only the data which satisfies the following conditions” (sales > \$400,000; or, state is in Midwest Region and Product Line = Garden).

In another example, a filter placed on Item Type (which includes an “=” (equal) operator and value “Keyboard”) returns only records associated with keyboard sales. Records associated with all other products are excluded from the results set. The data set could be expanded to include modem sales records by adding the value “Modem” to the filter expression.

Similarly, the filter “> 5000” applied to the Amount Sold item filters out all sales transactions less than or equal to \$5,000. Alternately, the expression “between 5000, 10000” exclude transactions above \$10,000 and eliminates any below or equal to 5,000.

Another advantage of Query filters is that you can apply a filter to any Topic item, even if the item is not on the Request pane. For example, if you request State, Year, and Units Sold, you can filter any of these items.

You can also place a filter on the Operating System if it appears in one of the topics in the Contents pane. For example, if you filter the Operating System to the UNIX only, the server retrieves only sales information related to the UNIX operating system. You do not need to place the Operating System on the Request pane.

**Note:** If a query contains an aggregate filter, it is added to the Data Layout. However, this aggregate filter line is read only and a new aggregate filter cannot be created.

► To set a query filter:

**1 Select a topic item in the Catalog list and select **Add to Filter** on the shortcut menu.**

**Optional:** You can also drag one or more topics from the Catalog list and drop them into the Filter pane.

The Filter dialog box is displayed.

**2 Define a pool of the potential filter values by selecting one of the following options:**

- **“Show Values” on page 143** —Supplies database values associated with the item.
- **“Custom Values” on page 145** —Supplies an empty text box for entering custom values.
- **“Custom SQL” on page 145**— Supplies an empty text box for entering a Structured Query Language (SQL) clause to be included in the query statement.

**3 If you are working with the Show Values or Custom Values options, select **Include Null** to include data where the data item has no value.**

Retrieves records where the filtered item has no value; for example a field in which no data has been entered. A null value is not equal to zero.

If you are working with the Custom SQL option, skip the remaining steps, enter your Custom SQL and click Set.

**4 Select the **NOT** check box to negate the operator it precedes.**

If you select NOT, the results of the equation are reversed.

**5 Select a comparison operator to use for filtering values.**

For example, if you specify the > Greater Than and specify a value of 10,000, values greater than 10,000 are returned.

For a list of valid comparison operators, see **“Comparison Operators” on page 131**.

**6 Select the values to apply as a filter.**

**7 Select **Set**.**

To suspend a filter temporarily without deleting it, click *Ignore*.

## Variable Filters

A variable filter is a preset filter that is associated with the Interactive Reporting document file by the designer and resolved only when the query is refreshed. At that time, you are prompted to select or enter filter values and complete the constraint. A variable filter prompt is displayed only if one has been set in the underlying Interactive Reporting document file.

Variable filters work particularly well with custom lists. If a custom list has been created, you can respond to the prompt by simply selecting a value from the custom list. For example, you may have an Interactive Reporting document file you use monthly to monitor inventory levels. Each time you use the Interactive Reporting document file, you run it separately for each product line you carry. You can accelerate the process by making the filter variable on the product line item, and create a custom values list. Each time you refresh the Interactive Reporting document file, you can select a new product line without redefining filters.



You can select from three types of filters from which to apply a variable constraint, including:

- “[Show Values](#)” on page 143 – Supplies database values associated with the item.
- “[Custom Values](#)” on page 145 – Supplies an empty text box for entering custom values.
- “[Custom SQL](#)” on page 145 – Supplies an empty text box for entering a Structured Query Language (SQL) clause to be included in the query statement.

If you do not need to select specific variable filters for the query, choose “Set” to accept the predefined filters and refresh the query. If you want to modify or add other values, complete steps 2 and 3 below.

➤ To specify a variable filter.

**1 Click Refresh on the Interactive Reporting toolbar.**

The Filter dialog box is displayed.

**2 If you are working with the Show Values or Custom Values options, select Include Nulls to include data where the data item has no value.**

Retrieves records where the filtered item has no value; for example, a field in which no data has been entered. A null value is not equal to zero.

If you are working with the Custom SQL option, skip the remaining steps, enter your Custom SQL and click *Set*.

**3 Select the NOT check box to negates the operator it precedes.**

Selecting NOT reverses the results of the equation.

**4 Select a comparison operator to use for filtering value.**

For example, if you specify the > Greater Than and then specify a value of 10,000, then values greater than 10,000 are returned.

For a list of valid comparison operators, see “[Comparison Operators](#)” on page 131.

**5 Select the values to apply as a filter.**

**6 Select Set.**

The filter is applied in the results set.

To suspend a filter temporarily without deleting it, click *Ignore*.

To see the result of setting the variable filter, select the Refresh command after the variable has been set.

## Applying Query Sorts

Sorting simplifies the process of data analysis. After data is sorted, the answers to questions are often readily at your fingertips because sorting ranks data to reveal trends and margins. If you apply simple sort conditions in the Query section, the database server sorts the data while refreshing the query *before* it is retrieved to your document file.

Typically, you can place an ascending or descending order on a sort condition that you place on a column.

- To apply a sort to the query, drag one or more items in the Request pane and drop them into the **Sort** pane.

**Optional:** A sort can also be applied by selecting an item and choosing **Actions then Add to Sort**.

When the query is refreshed, the request item is sorted in the results set.

- To sort in ascending order:

- 1 **Drag one or more items in the Request pane and drop them into the Sort Pane.**
- 2 **Select **Sort Ascending** on the shortcut menu.**

- To sort in descending order:

- 1 **Drag one or more items in the Request pane and drop them into the Sort pane.**
- 2 **Select **Sort Descending** on the shortcut menu.**


- To delete a sort, select the sort value to remove from Sort pane and choose **Delete** on the shortcut menu.

Deleting a sort returns the data to its original display.

## Refreshing a Query

After you build your query and apply filters computations, sorts, and any other adjustments to further refine your request, refresh it to get the results of your query. Refreshing your query may take a few moments if your query is complex or if the data in linked report sections needs to be refreshed.

When you refresh your query, the data is retrieved to the Results section in tabular form. You can refresh your query at any time and in any section to refresh the data. You can also return to the Query section from any other section at any time to alter the query and refresh it.

- To refresh a query, click .

**Optional:** You can also select **View**, and then **Refresh**.

## Results and Tables

When you refresh a query or import data, the Interactive Reporting retrieves data to your browser and displays it in the Results section. Although the query may have accessed several different database tables, the results set is displayed as a single table. Each requested item is displayed as a column in the table and each database record is a row.

Use the Results section to:

- Verify that your query returned the correct information.
- Refine and extend the data set by applying filter conditions or create new computed or grouped items.
- Sort or use text and column formatting features to enhance the appearance of data results.
- Add summary totals or subtotals and compute them with data functions.
- Print or export the retrieved data to other applications.

All reports, including tables, pivots, charts, are based on the data that is retrieved to the Results section.

Interactive Reporting provides several ways for you to view the results of a database query for better analysis:

- [Adding a Table](#)
- [Working with Columns and Rows](#)
- [Sorting Results/Table Items](#)
- [Number Formatting](#)
- [Applying a Results and Table Filter](#)
- [Results and Tables](#)
- [Show Values](#)
- [Results and Table Totals](#)
- [Adding Computed Items in Results and Tables](#)
- [Paging Through Results Data](#)

## Adding a Table

➤ To create a table based on data in the Results section:

- 1 **Select Action, then Insert, and then Table.**
- 2 **Drag Results items from the Catalog list to the Table Data Layout.**

The table columns are populated automatically.

## Working with Columns and Rows

Columns and rows can be formatted to your specific needs:

- [Adding a Column](#)
- [Deleting a Column](#)
- [AutoSizing Columns](#)

- [Deleting a Row](#)

## Adding a Column

If you have removed a column from the results set, you can easily add it back. However, any data values derived from the re-added column are not automatically update an existing column either in the results/table section or another section, which draws from the results set.

➤ To add a column:

- 1 Select any column.
- 2 Select **Add Column** on the shortcut menu.

## Deleting a Column

You may need to delete a column in order to view the data set in a new way or maybe you want to concentrate on selected columns of interest. This option is available for all columns. Note that column deletion should be approached with caution since other sections draw data values from the results set.

➤ To remove a column, choose the column and select **Delete Column** on the shortcut menu.

The column is deleted. If you need to add the column back to the Results section, select **Add Column** on the shortcut menu.

## AutoSizing Columns

By default, Interactive Reporting truncates columns evenly and without regard to the length of data values. With the auto-size column width feature, you can automatically size any column to fit the text of the largest value in the column.

➤ To autosize a column:

- 1 Select a column.
- 2 Select **Auto-Size Column Width** on the shortcut menu.

## Deleting a Row

You can delete a row if it is a grand total or break. Note that the grand total is shown in the last row on the last page of the table.

➤ To delete a row:

- 1 Select a row.
- 2 Select **Delete Row** on the shortcut menu.

## Sorting Results/Table Items

Data in the Results section is sorted in the order returned by the database. You can change the order in which a column is sorted either in ascending or descending order.

► To sort a column:

1 **Select the column you want to sort on.**

Selecting multiple columns invokes a “nested sort.”

2 **Select Sort on the shortcut menu.**

The Sort submenu is displayed.

3 **Select either the Ascending or Descending sort item.**

► To delete the current sort order:

1 **Select any column in the Results or Table section.**

2 **Select Sort on the shortcut menu.**

The Sort submenu is displayed.

3 **Select Delete All.**

## Number Formatting

You can change the way numbers, currency values, and dates are displayed throughout or create new custom formats.

► To apply number formatting, select the format from the Format drop down list box.

**Table 34** Formatting Categories

Option	Description
<b>Category</b>	Select a category for which you want to display number formats. When you select a category, the formats for that category are displayed in the Format field. To create a custom format, select <b>Custom</b> and enter the desired format in the Format field. Enter symbols, decimals, commas, and so on to indicate how to display the format. For example, enter 'MM/DD/YY' to display the date as `01/01/99', or enter '\$\$.###.00' to show two dollar signs before the number and a decimal to mark the thousands' place. When you create a custom format, it appears as a category on the machine on which it was created. If an item already has a custom format applied to it, the custom format is in read-only mode.
<b>Format</b>	Displays the format for the selected category. If you are creating a custom category, you can enter the desired format directly in the edit field.

**Table 35** Numeric Categories

Option	Description
<b>Number</b>	Sets the default format for real or integer values.
<b>Currency</b>	Applies currency formatting to the selected number object(s).

Option	Description
<b>Percentage</b>	Applied percentage formatting to the selected numeric object.

**Table 36** Formatting Options and Descriptions

Option	Description	Example
<b>0</b>	Integer placeholder or zero value. If a number has an integer value in this position relative to the decimal point, the inter is displayed. Otherwise a zero is displayed.	Apply 0 to show 123. Apply 0.00 to show 123.45.
<b>#</b>	Integer placeholder. If a number has an integer value in this position relative to the decimal point, the integer is displayed. Otherwise, nothing is displayed.	Apply #,##0 to show 1,234.
<b>()</b>	Formats with parenthesis options display negative values in parentheses. Otherwise, negative values are displayed with a minus sign.	Apply (,###0) to show (1,234).
<b>;</b>	A semicolon operates as a separator between two number formats. The semicolon separates a positive integer and a negative integer.	Apply #, ##0;(,##0) to show 1, 234 or apply (1, 234) for a negative number.
<b>\$ %</b>	Adds the respective character to numeric values in the same position relative to the decimal point.	Apply \$,##0.00 to show \$1,234.56. Apply 0% to show 3%.
<b>m d yy</b>	Displays month, day, and year in respective positions for date-coded information.	Apply mm dd yy to show 05 07 99
<b>- /</b>	Adds the respective character to date-coded values in the same position relative to variables.	Apply mm/dd/yy to show 06/23/99

## Applying a Results and Table Filter

Because local filters only hide data from the display, they are a good way to filter the data set to reflect temporary and hypothetical situations. You can always remove the filter to return data to the display and make it available for reporting.

Applying filters to your results/table sets allows you to narrow your request. That way you can work with relevant data, saving time and conserving database and server resources.

You can add, modify and remove filters to columns in the Tables/Results section. The column to which the filter is applied must exist in the table, and a filter cannot be placed on a hidden column.

See also:

- [Show Values](#)
- [Custom Values](#)
- [Custom SQL](#)
- [Modifying Filters](#)
- [Deleting Filters](#)

► To add a results/table filter:

**1 Select a column on which to apply the filter.**

**2 Select **Filter** on the shortcut menu.**

The Filter submenu is displayed.

**3 Select **Apply/Modify** on the Filter submenu.**

The Filter dialog box is displayed.

**4 Define a pool of the potential filter values by selecting one of the following options:**

- [“Show Values” on page 143](#) —Supplies database values associated with the item.
- [“Custom Values” on page 145](#) —Supplies an empty text box for entering custom values.

**5 If you are working with the Show Values or Custom Values options, select **Include Nulls** to include data where the data item has no value.**

Retrieves records where the filtered item has no value; for example, a field in which no data has been entered. A null value is not equal to zero.

If you are working with the Custom SQL option, skip the remaining steps, enter your Custom SQL and click *Set*.

**6 Select the **NOT** check box to negate the operator it precedes.**

Selecting NOT reverses the results of the equation.

**7 Select a comparison operator to use for filtering values.**

For example, if you specify the > Greater Than and then specify a value of 10,000, then values greater than 10,000 are returned.

For a list of valid comparison operators, see [“Comparison Operators” on page 131](#).

**8 Select the values to apply as a filter.**

**9 Select **Set**.**

The filter is applied in the results set.

To suspend a filter temporarily without deleting it, click *Ignore*.

## Show Values

The Show Values feature provides a list of values derived from the content of the Results or Table section. Because Show Values retrieve every unique value available, it is best not to use this feature when the data item is large, consists mostly of unique values, or does not change frequently (for example, telephone numbers). In this situation, custom values are recommended when you want to avoid extra calls to the database.

The value list that initially displays was saved with the imported Interactive Reporting document file, and it is not the latest value list from the database.

To show the latest value list, select **View**, then **Refresh**.

► To specify a database filter value:

- 1 Select the **Show Values** tab.
- 2 Select **Include Nulls** to allow nulls to pass the filter and display in the data set.
- 3 Expand the Operator drop down and select a comparison operator for the filter expression.

Check **Not** to reverse an operator condition.

For example, if you specify the > Greater Than and then specify a value of 10,000, then values greater than 10,000 are returned. Values which pass the comparison test are included. Valid operators include:

**Table 37** List of Comparison Operators

Operator	Retrieves Records Where the Filtered Item:
<b>Equal (=)</b>	Equals the specified value(s).
<b>Not Equal (&lt;&gt;)</b>	Does not equal the specified value(s).
<b>Less Than (&lt;)</b>	Less than the specified value(s).
<b>Less or Equal (&lt;=)</b>	Equal to or less than the specified value(s)
<b>Greater Than (&gt;);</b>	Is greater than the specified value(s).
<b>Greater or Equal (&gt;=);</b>	Is equal to or greater than the specified value(s)
<b>Begins With</b>	Begins with the specified value(s) up to and including the end value.
<b>Contains</b>	Contains the specified value(s) regardless of location.
<b>Ends With</b>	Ends with the specified value(s).
<b>Like (with wildcards)</b>	Retrieves records where a text string is displayed and reflects the placement of the specified value(s). For example, a Name Like %ZE_ retrieves records for all employees whose names have the letters Ze followed by a single character at the end
<b>Is Null</b>	Has no value; for example a field in which no data has been entered.
<b>Between</b>	Retrieves records where the value of the filtered item lies between (and does not equal) the specified values.
<b>Not (with operator)</b>	Negates the operator it precedes, reversing the results of the equation

- 4 Highlight the values to include as filters from the Values list.

To select an individual value, highlight it in the Values pane.

To select multiple and contiguous values in the Values pane, hold the [Shift] and scroll down to or up to the items.

To select multiple, but non-contiguous values in the Values pane, hold the [Ctrl] key and highlight the items.

- 5 Click **Set**.

To suspend a filter temporarily without deleting it, click *Ignore*.



## Custom Values

A Custom Values list can be used to set a filter and are created by or supplied to you. One reason to use custom lists with a distributed Interactive Reporting document file is that many data items change very rarely. For example, a Gender item has three consistent values (male, female, and unknown). A Product line item has many more items, but may only change every year or so. Under these circumstances, it makes sense for you to select from a custom values list.

The initial custom values shown in the values pane originate and are saved with the Interactive Reporting document file.

➤ To apply a custom value as a filter:

**1 Select Include Nulls to include data where the data item has no value.**

Retrieves records where the filtered item has no value; for example a field in which no data has been entered. A null value is not equal to zero.

**2 Select a comparison operator to use for filtering value.**

Select the NOT check box to negate the operator it precedes.

For example, if you select the > Greater Than operator and specify a value of 10,000, values greater than 10,000 are returned.

For a list of valid comparison operators, see [“Comparison Operators” on page 131](#).

**3 In the Values field, enter the values to which you want to set as a filter.**

**4 To add the value, select +(the addition sign).**

To remove a value from the Values panel, highlight the item in the Values pane and click the - (subtraction sign).

**5 Click Set.**

To suspend a filter temporarily without deleting it, click *Ignore*.

## Custom SQL

If you are familiar SQL, select the Custom SQL feature and type a SQL *where* clause to be included in the query statement.

➤ To add a custom SQL statement:

**1 Select the Custom SQL tab.**

**2 Type your SQL where clause containing the expression to use for the filter in the Values pane.**

**3 Click Set.**

To suspend a filter temporarily without deleting it, click *Ignore*.

## Modifying Filters

Once a filter exists for data in your query or results, you can later add or modify filter conditions.

► To modify a filter:

1 Select the column to which the filter has been applied.

2 Select **Filter** on the shortcut menu.

The Filter submenu is displayed.

3 Select **Apply/Modify** on the Filter submenu.

The Filter window is displayed.

4 Select the filter value and click **Set**.

The following table provides a quick reference to the Modify Filter option:

Command	Description
<b>Set</b>	Applies the filter value.
<b>Ignore Filter</b>	Ignores a filter without deleting it.
<b>Cancel</b>	Cancel any filter applied in the current sessions.

## Deleting Filters

Deleting filters adds the original values that were filtered back into the data set.

► To delete a filter, select the columns that has the filter value to be deleted and select **Actions, then Filter, then Delete** on the shortcut menu.

## Results and Table Totals

Totals and subtotals can help to consolidate a large results set. If you need individual data records and plan to print the Results and Table section as a quick report, add totals and subtotals to break your report into manageable sections.

	Delivery Date	Units	Amount
0 AM	06/25/95 12:00 AM		4,146.8
0 AM	05/04/95 12:00 AM		1,487
0 AM	05/07/95 12:00 AM		3,274.5
0 AM	12/24/96 12:00 AM		2,809.6
0	Sum		1,189.6
0	Average		2,974
0	Minimum		6,750
0	Maximum	35	856.8
0	Count	10	1,309.8
0		15	1,964.7
0	Remove All	20	2,449.6

See also:

- [Calculating a Grand Total for a Column](#)
- [Calculating a Break Total for a Column](#)

## Calculating a Grand Total for a Column

You can calculate a grand total for any numeric data column and specify the original total value with a new type of function. For example, by default the totals for a column are sums of the values in those columns. But you can change the totals to averages instead of sums. These Results/ Table section functions include:

Data Function	Returns the:
<b>Sum</b>	Sum of all underlying values.
<b>Average</b>	Average of all underlying values.
<b>Maximum</b>	Highest of underlying values.
<b>Minimum</b>	Lowest of underlying values
<b>Count</b>	Number of underlying values.

➤ To apply a grand total to a column:

- 1 **Select the column and choose **Grand Total** on the shortcut menu.**

A submenu showing all available total functions is displayed.

- 2 **Select a total function.**

The grand total is displayed in a new row at the bottom of the last page in the selected column.

➤ To remove all grand totals:

- 1 **Select a column to which a grand total was applied and choose **Grand Total** on the shortcut menu.**

A submenu showing all available total functions is displayed.

- 2 **Select **Delete All**.**

➤ To remove a selected grand total:

- 1 **Select the row to which a grand total was applied and choose **Grand Total** on the shortcut menu.**

A submenu showing all available total functions is displayed.

- 2 **Select **Delete**.**

## Calculating a Break Total for a Column

You can add subtotals to the same column by choosing another column of non-numeric data to serve as a “break column.” The break column is used as a reference point to determine where to break the data in the target column. The data in the subtotal column is subtotaled for each distinct range of identical values in the break column.

Once a break total is placed on one column, the break total is applied to all numeric columns.

Like the total functions you can use when adding a grand total, a break total can also consist of different functions. These functions include:

<b>Data Function</b>	<b>Description</b>
<b>Sum</b>	Sum of all underlying values
<b>Average</b>	Average of all underlying values
<b>Maximum</b>	Highest of underlying values
<b>Minimum</b>	Lowest of underlying values
<b>Count</b>	Number of underlying values

➤ To apply a break total:

- 1 Select the column and choose **Break Total** on the shortcut menu.**

A submenu showing all available break total functions is displayed.

- 2 Select a total function.**

The default total function is “Sum”.

Break totals are displayed in the target column along with the break total function name.

➤ To delete all break totals:

- 1 Select the column to which the break total was applied.**

- 2 Select **Break Total** on the shortcut menu.**

- 3 Select **Delete All**.**

➤ To remove a selected break total:

- 1 Select the row to which a break total was applied and choose **Break Total** on the shortcut menu.**

A submenu showing all available total functions is displayed.

- 2 Select **Delete**.**

## Adding Computed Items in Results and Tables

In the Results and reporting sections, computations are performed in the Interactive Reporting document file. The computations involve only the data in your results set or on the surface of a reporting section.

In these sections you can only create new computed items: you cannot modify original data items retrieved directly from the database.

Computed items in the Results and reporting sections differ in two respects:

- In the Results and Table sections, reference items are limited to the items that is displayed on the Request line.
- In the remaining reporting sections (excluding the Report Designer section), items in any data layout are available in the Reference dialog box. Computations in these sections work

on the aggregated cell values that make up the core of the report. To perform computations on data before it is aggregated, compute the new item in the Results section.

- In the Report Designer section, the break totals of a table can be calculated.

► To add a computed item in the Results and Table sections:

**1 Select an item in the Request pane and choose **Actions**, and then **Add Computed Item(s)**.**

The Computed Item dialog box is displayed.

At least one Results or Table column must be present to enable the shortcut menu which contains the option to add or modify a computed item. When no columns are present, you must select the Add Computed Item from the Actions menu.

**2 Enter a name for the computed item in the **Name** field.**

The default name is Computed, which is numbered sequentially if there is more than one. If you assign a name to a computed item that is identical to an existing scalar function name, Interactive Reporting numbers the name starting with the number 2.

**3 Select the data type of the computed item from the **Data Type** list box.**

For information about data types, see [“Adjusting Data Types” on page 129](#).

**4 Enter the definition of the computed item in the **Definition** text box.**

- You can type operators to insert arithmetic and logical operators at the insertion point. See also [“Operators” on page 130](#).
- Click **Reference** to display the Reference dialog box, and select items to place in the equation. See also [“Reference” on page 133](#).

You can also type any portion of the equation or the entire equation directly into the Definition text box using JavaScript. The names are case sensitive, and you must replace spaces in item names with underscores ('\_').

**5 When the equation is complete, click **OK**.**

## Adjusting Data Types

Since computed items are new data items, confirm or change the data type of the item to preserve the precision of a mixed-data type computations, or to change the way a data item is handled (for example, interpreting number as strings). This ensures the correct handling of data in server computations.

Attention to data types is most important when computing items in the Query section. Here the computation is performed on the database server, and the computed item may be handled with an unanticipated data type.

Local calculations (Results or Pivot) are handled internally, and adjustment between 16- and 32-bit integers can be handled safely using the automatic or number data type specification.

**Table 38** Data Types in Results and Tables

Data Type	Specification
<b>Automatic</b>	A data type is determined automatically given the data type of the reference items and the computations performed
<b>Number</b>	Numeric data type.
<b>String</b>	Text strings to a maximum length of 256 characters
<b>Date</b>	Calendar date in server default format (typically mm/dd/yy)
<b>Picture</b>	Picture (Blob) data types for image formats such as: jpeg, bmp, gif, and png.

## Paging Through Results Data

By default Interactive Reporting shows a fixed number of rows in a table when a user views a page in a browser. For paging behavior when data extends beyond the vertical and horizontal rows shown on the page, see below.

**Table 39** Results and Table Paging Options

Paging Option	Description
<b>Current Page</b>	The tooltip shows the current page in the report.
<b>Page Up</b>	Moves one page up. To move to the top page, select [Shift] + Click + Up arrow.
<b>Page Down</b>	Moves one page down. To move to the first page in the down direction, select [Shift] + Click + Down arrow.

## Chart Section

Charts are fully interactive, three-dimensional views of data. A chart is a graphical representation of a Pivot section. With a varied selection of chart types, and an arsenal of tools like grouping, drill-down and drill to detail, the Chart section is built to support simultaneous graphic reporting and ad-hoc analysis. You can add, move, cluster, focus and drill down into chart objects to gain customized views of the data.

- [Understanding Chart Dimensions](#)
- [Legends](#)
- [Chart Types](#)
- [Two-dimensional Chart Types](#)
- [Multidimensional Chart Types](#)
- [Viewing Three-dimensional Bar Charts](#)

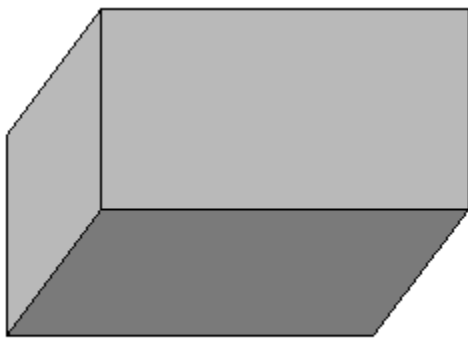
## Understanding Chart Dimensions

A Chart can be referenced at three points: height, width and depth (x, y and z in Cartesian space). To understand the differences among charts, you have to distinguish between dimensions in space and dimensions of data. The two dimensions are distinct.

Data can either be represented in two or in three dimensional space. In two dimensions, data is represented along the x and y axis. In three dimensions, data is projected back along the z axis.

Two dimensions of data must be represented in two dimensional space. At least three dimensions of data are necessary to use the third spatial dimension.

But three or more dimensions of data can be represented in two dimensional space. For example, cluster and stack represent data categories in the bar chart of two spatial dimensions (x and y axes only).



## Chart Data Layout Categories

The Chart Section opens with an initial plot area for the chart. Because you manage chart construction and manipulation is with the Chart data layout plotting, viewing and reviewing are easy and intuitive.

You construct a chart by dragging items from the Catalog pane to a data layout pane. At least one items must populate the data layout to plot a usable chart.

The data layout consists of the following items:

**Table 40** Chart Data Layout

<b>Data Layout Pane</b>	<b>Description</b>
X Axis Slice	Used for items placed on the x axis, which is a straight line on the chart. Used as a qualitative data label for categorizing information. To place items on the x axis, use the X-Axis pane.

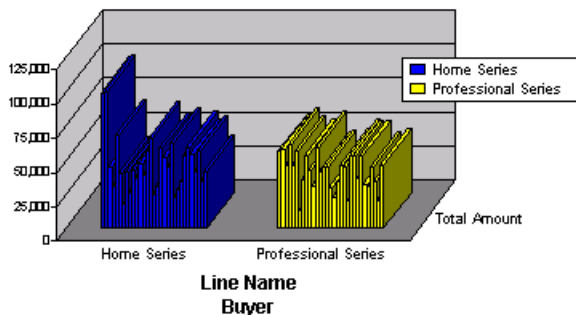
<b>Data Layout Pane</b>	<b>Description</b>
Stack Cluster Depth	<p>Represents the third dimension of data, that is, the z axis that projects out toward you or a location in space. This axis can either be qualitative or quantitative.</p> <p>For a <b>Stack</b> pane, each dimension of data of the charts is represented by only one bar. This bar consists of as many components as the data file has data rows, with the data from each row stacked onto the previous row. For example, a single bar can represent the amount of sales for CD-ROM drives in one year on top of a bar representing sales for other years. You can stack the bar charts vertically or horizontally. By stacking items and assigning a different color to each item, you can display trends among comparable or related items, or emphasize visually a sum of several indicators.</p> <p>For a <b>Cluster</b> pane, data extended in the third dimension is shown as clusters displayed in the foreground. This category creates a vertical column (and only a vertical column) for each data value. If the chart is showing multiple data series, the values are grouped based upon the category value. For example, use clustered bars to compare stores of different types. Alternatively, cluster bars can be used to compare two different values items, such as Amount of Sales and Units Sold.</p> <p>For the <b>Depth</b>, data extends the length of the chart along the z axis.</p>
Fact Fact (Stack) Fact (Depth)	<p>The <b>Facts</b> pane indicates height in the coordinate system. It is used as a quantitative label as a way of categorizing information on the y axis.</p> <p>For the <b>Fact (Stack)</b> pane, each dimension of numeric data is represented by only one bar. and shows the grouping along the y axis. This bar consists of as many components as the data file has numeric rows, with the numeric data from each row stacked onto the previous row. For example, a single bar can represent the amount of sales for CD-ROM drives in one year on top of a bar representing sales for other years. You can stack the bar charts vertically or horizontally. By stacking items and assigning a different color to each item, you can display trends among comparable or related items, or emphasize visually a sum of several indicators.</p> <p>For the <b>Fact (Depth)</b> pane, numeric data extends the length of the chart along the z-axis.</p>

## Legends

A chart legend can be set on the x, y or z axis enabling you to shift your focus to data listed on a particular axis. This is a great way to view values on the selected axis without having to view another chart report.

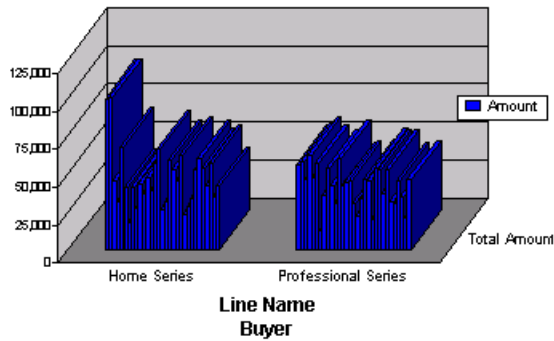
The following three examples shows how to set the legend on different axes to alter the appearance and data shown by the same chart.

In the first example, the legend has been set on the x axis:

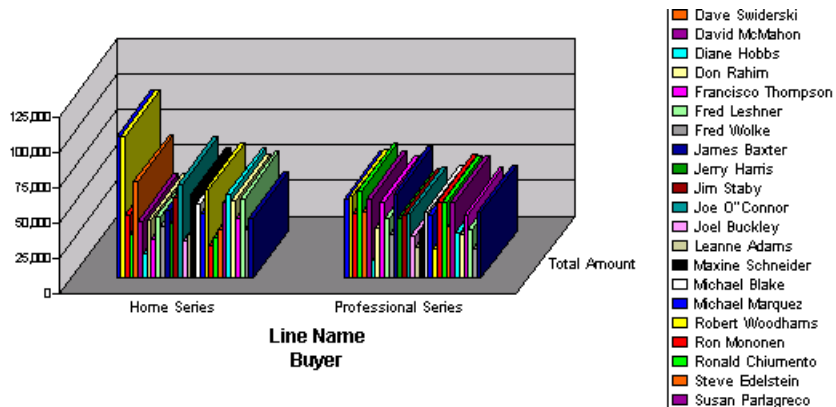


In the second example, the legend has been set on the y axis:





In the third example, the legend has been set on the z axis:



- To set the chart legend:
  - 1 Select the axis on which to set the legend.
  - 2 Select **Set Legend on** from the shortcut menu.  
The Axes drop-down list box is displayed.
  - 3 Select either the **x, y or z axis**.

## Changing Chart Properties

You can change the properties of a chart to view it in different perspectives:

- [Chart Types](#)
- [Two-dimensional Chart Types](#)

### Chart Types

Chart types are defined by how they represent data graphically and how they plot values and labels along the x, y or z axes. There are thirteen chart types, each of which may be switched from a two-dimensional to a three-dimensional view (with the exception of the pie chart). Chart types include:

- [Pie Charts](#)

- [Stacked Bar Charts](#)
- [Clustered Bar Charts](#)
- [Pie Charts](#)
- [Bar Charts](#)
- [Scatter Charts](#)
- [Bubble Charts](#)
- [Area Charts](#)
- [Line Charts](#)
- [Time Aware Axis](#)
- [Ribbon Charts](#)
- [Bar-Line \(Combination\) Charts](#)

➤ To change a chart type:

- 1 **Select an item on the chart.**
- 2 **Select **Change Chart Type** on the shortcut menu.**
- 3 **Select another chart type from the submenu.**

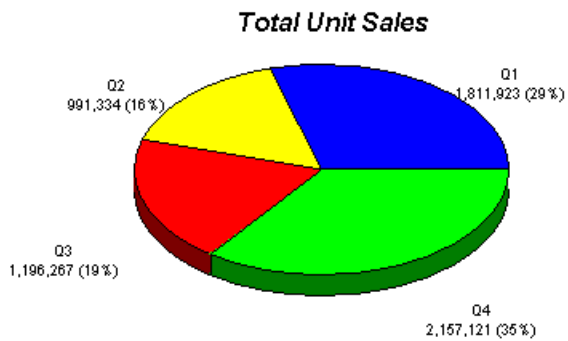
## Two-dimensional Chart Types

Pie and bar charts (of the non-stacked variety) lend themselves to representing two dimensions of data. For example, imagine charting the amount of sales by product type. In pie charts, the two dimensions are represented by slices of a pie. In bar charts, the data is represented by bars along the x and y axes. Two-dimensional chart types include pie and bar charts.

- [Pie Charts](#)
- [Scatter Charts](#)
- [Bubble Charts](#)
- [Bar Charts](#)

## Pie Charts

Pieces (slices) of the pie are drawn to depict the relative value of a measurable item category to the whole. Pie charts represent additional dimensions of data by further subdividing the pie.



### Showing Negative and Positive Values

Pie slices can show both positive values and negative values.

- To toggle the display of negative values, select a slice of the pie and select **Show Negative Values** on the shortcut menu.

### Showing Pie Percent

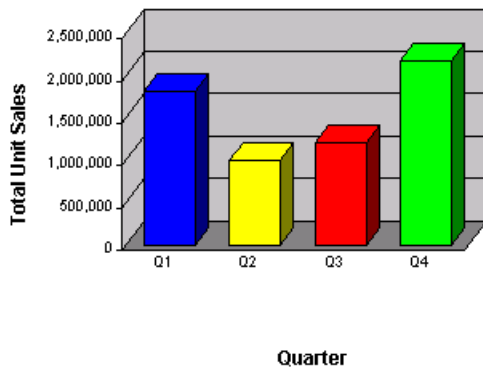
Pie slice values can be expressed as a percentage.

- To toggle the display of each pie slice value as a percentage, select a slice of the pie and choose **Show Pie Percentages** on the shortcut menu.

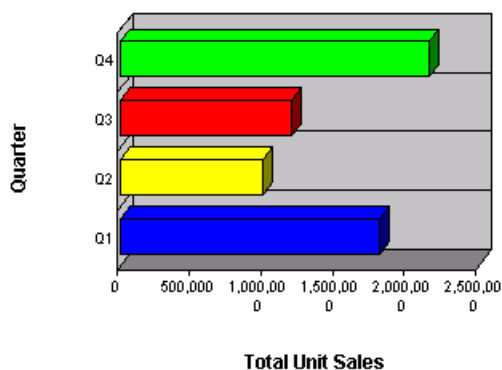
### Bar Charts

Bar charts are the most common type of business chart and are especially useful for comparative analysis when you want to focus on comparing values and place less emphasis on time. Use a bar chart to illustrate comparisons among individual items.

In a vertical bar chart, items in the y axis form the chart bars. Items in the x axis and z axis itemize the bars.



In a horizontal bar chart, items in the y axis form the chart bars, and items in the x and z axes itemize the bars.



## Showing Bar Values

- To toggle the display of values, select a bar and choose **Show Bar Values** on the shortcut menu.

## Scatter Charts

A scatter chart is useful for emphasizing scientific or statistical similarities rather than differences in your analysis. Scatter charts illustrate the relationship between pairs of numerical or quantitative values, which are combined into individual data points along the horizontal (y axis) and a vertical (x axis) axis. Data points are plotted in uneven intervals.

A scatter chart represents non-aggregated sources, that is, it retrieves data from the underlying Table/Reports section and does not reflect rolled up values (all other chart types retrieve their data from an aggregated source, and there is a one-to-one correspondence between Charts and Pivots). For this reason, the Pivot This Chart feature is not available for a scatter chart.

Scatter charts can only contain a pair of fact or numeric values which are placed in the Y Axis and X Axis in the data layout. If you add only one fact item to the data layout, no scatter chart is rendered. In addition, label values cannot be added to the Y Axis or X Axis of the data layout.

The following feature limitations apply to scatter charts:

- Data functions are not available to scatter charts because this type of chart relies on non-aggregated data.
- The sort feature cannot be used for scatter chart items.
- The Pivot To Chart feature is not available.
- Drilling cannot be performed on a scatter chart.
- The focus feature cannot be used on scatter chart items.
- The Hide feature hides the whole data series in a scatter chart, and an individual item cannot be hidden.

## Bubble Charts

Bubble charts are typically used to show three dimensions of data in a two dimensional chart. This type of chart often lends itself to the display of financial data because specific values can be visually represented in your chart by different bubble sizes. It is similar to scatter chart allowing you to plot data as a collection of bubbles. Bubble charts plot three values:

- Value set on the x-axis
- Value set on the y-axis
- Value that defines the size or width dimension of a bubble in proportion to the amount of data

Multiple data values can be plotted in the bubble chart.

Bubbles with zero size can rendered using some small bubble size to prevent them from disappearing. Also there is an option can be provided to hide zero-size values if necessary.

Bubbles with negative values can also be displayed. These type of values are derived from their real absolute value, and the real negative value is depicted in the data label (although based on the positive value). You can optionally select not to show negative values.

Bubble charts have the following limitations:

- Data functions are not available (this type of chart relies on non-aggregated data)
- Sort is not available
- Pivot To Chart is not available.
- Drilling cannot be performed
- Focus cannot be used
- Hide hides the whole data series in a bubble chart; an individual item cannot be hidden.

➤ To create a bubble chart:

- 1 In the **Section** pane, select the chart in which to generate the bubble chart.
- 2 Drag a fact value from the **Catalog** pane to the **Y Axis** of the data layout.
- 3 Drag a fact value from the **Catalog** pane to the **X Axis** of the data layout.
- 4 Drag a fact value from the **Catalog** pane to the **Size** pane of the data layout.

➤ To show the real value of a data point, use the tool tip and hover over the data point.

➤ To show grid lines on the scatter chart, click the plot area of the chart and select **Show X Axis Grid Lines** or **Show Y Axis Grid lines**.

## Multidimensional Chart Types

Frequently you may want to view data represented in more than two dimensions. For example, you may want to see how the sales of product types break down by years or quarter. There are

numerous ways to chart three or more dimensions of data. You can project data into the third dimension of space. You can also represent the data in two spatial dimensions.

- [Viewing Three-dimensional Bar Charts](#)
- [Clustered Bar Charts](#)
- [Stacked Bar Charts](#)
- [Area Charts](#)
- [Stacked Area Charts](#)
- [Line Charts](#)
- [Time Aware Axis](#)
- [Ribbon Charts](#)
- [Bar-Line \(Combination\) Charts](#)

## Viewing Three-dimensional Bar Charts

You can add more information to your bar chart by adding an additional item or items to the z axis of the chart. Using multidimensional charts, you can show various relationships between three or more items in easy-to-understand bar chart formats.

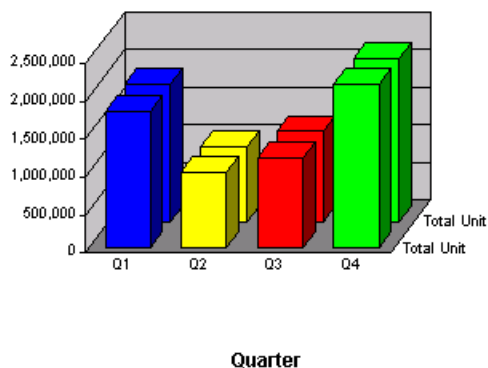
## Clustered Bar Charts

Cluster bar charts can be used to juxtapose categories in one label item category. For example, use clustered bars to compare stores of different types. Clustered bars can also be used to compare two different value items, such as Amount of Sales and Unit sold.

You can change your chart perspective so that the z axis data extended in the third dimension is shown as clusters displayed in the foreground. This charting type is useful when z axis bars are hard to distinguish in standard bar formats.

Cluster charts can be used to juxtapose categories in one label item. For example, use clustered bars to compare stores of different types. Alternatively, cluster bars can also be used to compare two different value items, such as Amount of Sales and Unit Sold.

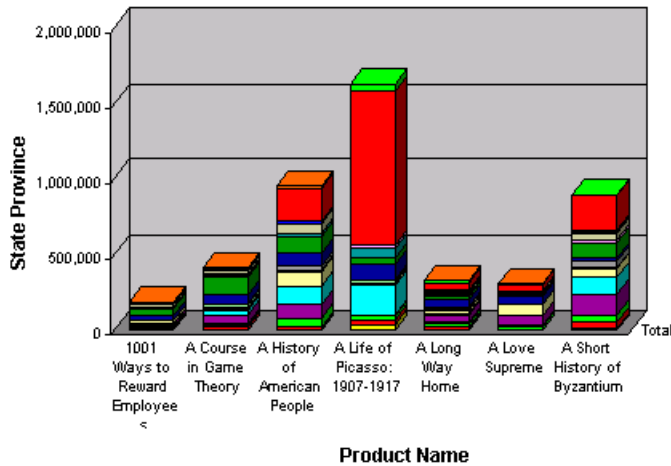
Clustered bar charts are only displayed in a vertical format.



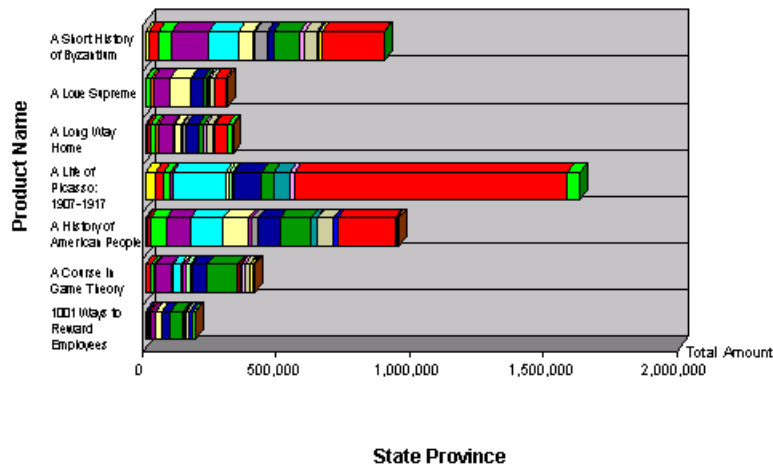
## Stacked Bar Charts

One way to represent the third dimension of data is through stacking. In this way, a single bar on the chart can show data for more than one category of data. For example, a single bar can represent amount of sales for CD-ROM drives in one year on top of a bar representing sales for other years. Stacked bar charts can stack vertically or horizontally.

The following is an example of a vertical stacked bar chart.



The following is an example of a horizontal stacked bar chart.

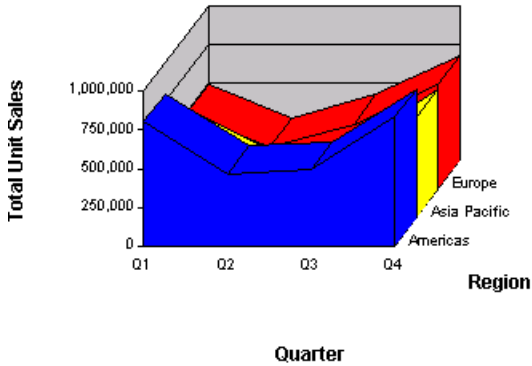


## Area Charts

Area charts are essentially bar charts with discontinuous breaks removed along the horizontal axis. Data is not broken into discrete bars, but is displayed in a continuous ebb and flow as defined against the y axis. Consequently, area charts are particularly useful for emphasizing the magnitude of change over time. In addition, area charts can be used for the same purpose as bar charts.

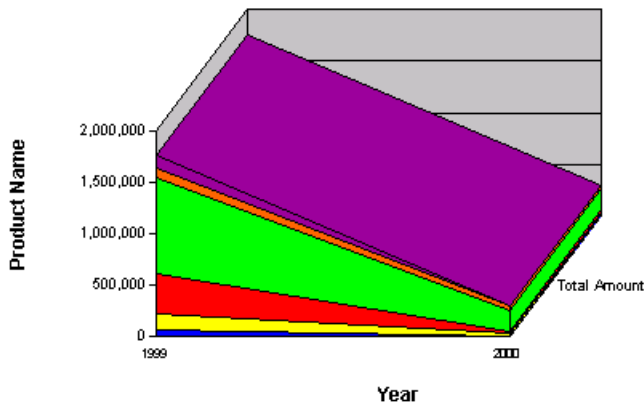
Because area charts do not break data along the horizontal axis, they are most useful for charting three dimensions of data. The z axis should be used to either project data into a third-spatial dimension, or to track two categories of data in a stacked area chart.

In the area chart, items on the y axis determine the height of the line, and items on the x axis itemize the line sections. You can create multiple lines by adding items to the z pane.



## Stacked Area Charts

Stacked area charts are essentially bar charts with the discontinuous breaks removed along the horizontal axis, and categories of data are “stacked” on top of each other. Data therefore is not broken into discrete bars, but is displayed in continuous ebb and flow as defined against the y axis. A stacked area chart is an excellent way to display data that shows the relationship of parts to the whole. Consequently, stacked area charts can be particularly useful for illustrating changes that are plotted over a period of time.



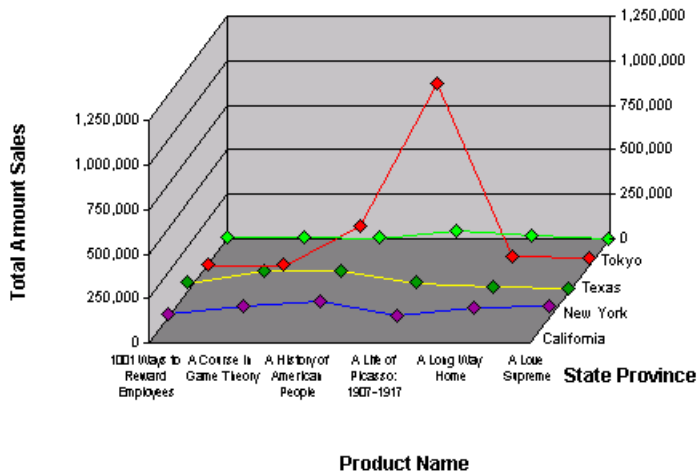
## Line Charts

Line charts show trends in data at equal intervals and are effective for comparing highs and lows in a continuum. Items on the y axis determine the height of the line, and items in the X-Categories itemize the line sections. You can create multiple lines by adding items to the Z-Category.



Line charts have one advantage over bar charts. They do not enable one set of data to obstruct the representation of another. Since lines are thin compared to bars, the data displayed in the front does not block out the data behind.

As a result, data that is not easily represented in bar or area charts work well in line charts. Many more dimensions of data can be superimposed without impairing the effectiveness of the chart.



## Time Aware Axis

The Time Aware Axis feature allows you to show dates in chronological order plotted at specific intervals within minimum and maximum bounds. To do this, the Time Aware Axis feature turns a discrete X-Axis into a continuous time interval. The distance between adjacent axis items is proportional to their time value difference (a non Time Aware Axis shows all items using the same difference between them). The Time Aware feature only implements an alternative visualization of source data and does not affect the way how the data is aggregated and computed items are calculated. That is, the data processing in chart section which includes dividing data into categories and calculating fact data does not depend on whether the Time Aware feature is activated. In particular, the behavior of the “Chart This Pivot”, “Pivot This Chart” and “Add Computed Item” actions do not change.

The Line Charts is the main application area of this feature; however it is available in almost all existing chart types. Scatter/Bubble charts do not include this option because they are already “time aware” (essentially, value aware) by nature. Both have two fact axes which are continuous by definition.

The Time Aware axis can only be used under specific conditions:

- The X axis should have a date/time category to display, which becomes a dedicated Time Scale category.
- Only one category should be on the X-Axis. If you add multiple categories, even if they are date/time categories, the feature is rendered inactive.
- The Time Aware axis is not available for pie, scatter and bubble charts.

The Time Aware Axis is considered active if the conditions in the list above are met, and the Time Aware option on the Label Axis dialog is not explicitly disabled. You can turn on or off the feature. If you turn off the feature, the X axis remains discrete as in previous versions. By default the feature is turned off for Interactive Reporting document files older than Release 9.3. Charts created in Release 9.3 and later have the feature enabled.

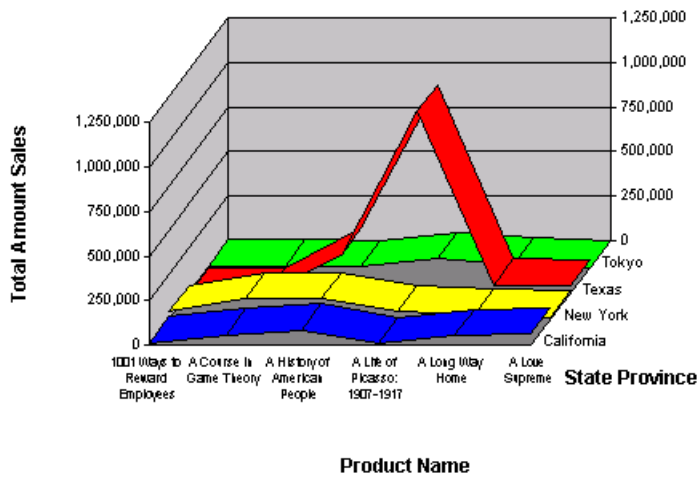
**Note:** Since the Time Aware Axis assumes that all axis labels are in ascending order, the sort order option is disabled.

► To create a Time Aware axis:

- 1 Check the Time Aware option on the Label Axis tab of General properties.
- 2 Drag a date/time item from the Catalog pane to the X pane in the data layout.
- 3 Drag a value item from the Catalog pane to the Facts pane in the data layout.

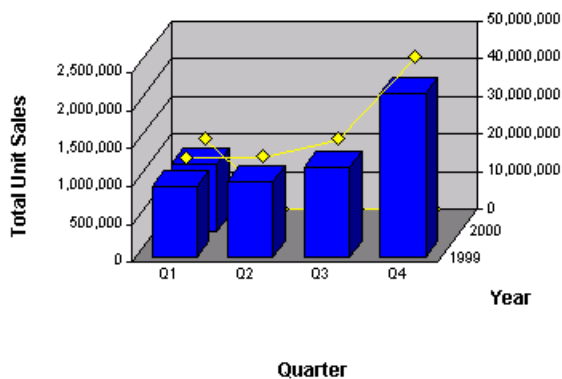
## Ribbon Charts

A ribbon chart is very similar to a line chart, but with a few visual differences. In ribbon chart, values in the y axis determine the height of the line, and values in the x axis itemize the line sections. You can create multiple lines by adding items to the z axis.



## Bar-Line (Combination) Charts

Bar-Line charts (also known as Combination charts) combine some of the strengths of bar charts with the advantages of line charts. Solid bars can be used for the most important data against which other dimensions are represented in lines. In this way, emphasis is given to a portion of data based on its importance. A combination chart is especially useful for comparing two numeric values, such as amount and units of sales.



**Note:** A combination chart is most effective when the y axis contains only two value items. It represents one value as bars and the other value as a line. When more than two values are present, the chart alternates between bars and lines in depicting the values (1st, 3rd, 5th items are bars; 2nd, 4th, 6th items are lines).

## Working with Charted Data

Interactive Reporting provides several ways for you to dynamically manage your chart data for better analysis. Review the following topics for information on:

- [Adding Chart Items](#)
- [Removing Chart Items](#)
- [Focusing and Hiding Charted Data](#)
- [Grouping and Ungrouping Chart Labels](#)
- [Reference and Trend Lines](#)

### Adding a Chart

- To create a Chart based on the Results section data:
  - 1 **Select Actions, then Insert, and then Chart.**
  - 2 **Drag Results items from the Catalog List to the Chart data layout.**  
The table columns are populated automatically.
  - 3 **Select a Chart type on the shortcut menu.**

### Adding Chart Items

Interactive charts consist of two layout elements: graphical elements (for example, Chart bars or pie slices) and axis labels. When you add items to a chart, they become values or dimensions in your report.

➤ To add a chart item:

- 1 Select a **Chart** item and choose **Add item** on the shortcut menu.

The x axis, y axis and z axis submenus are displayed. The z axis submenu does not display for a pie chart.

- 2 Select a data label from the x axis submenu.
- 3 Select a fact item from the y axis submenu.
- 4 Select a data label item from the x axis (or **Z-Cluster** for a clustered chart, or **Z-Stack** for a stacked chart) submenu to add a third dimension to the chart.

## Removing Chart Items

Removing a plotted items in the Chart sometimes helps to simplify a chart display. However, you do need at least one fact item in order to display a chart accurately.

➤ To remove a chart item:

- 1 Select the item to be removed in the Chart from the data layout.
- 2 Select **Delete** on the shortcut menu.

The chart is redrawn to reflect the new configuration of items in the chart.

## Refreshing Chart Values Manually

If a Chart section has been designed so that chart values can be refreshed manually, you can request an immediate refresh to the current section.

➤ To refresh chart values manually, click anywhere on the chart and select **Refresh Chart** on the shortcut menu.

## Focusing and Hiding Charted Data

A straightforward way to refresh your view of a chart is to single out items for closer focus or to hide some of the charted elements. This allows you to concentrate on particular items of interest.

Focusing redraws the chart report to show only the item you have chosen. This feature is only available for items on the x axis or z axis.

The Show All command updates the chart to include all items removed by focusing. Note that this command is available only when a Chart item has been focused.

Generally, you should only hide items on the x or z axis. Hiding the y axis causes the entire fact to be hidden.

The Show Hidden Items command restores any hidden item.

➤ To focus on a chart item:

- 1 Select one or more item on which to focus.

The selected items are displayed with a dotted outline.

## 2 Select **Focus** on the shortcut menu.

The chart is redrawn to display only the chart item selected.

- To show all items in a chart, select a chart item and choose **Show Hidden** on the shortcut menu.

- To hide charted data:

### 1 In the Chart, select the objects to hide.

The selected item(s) are displayed with a dotted outline.

## 2 Select **Hide Item** on the shortcut menu.

The chart is redrawn to hide the item.

- To show hidden items, select a chart item and choose **Show Hidden** on the shortcut menu.

## Grouping and Ungrouping Chart Labels

You can merge Chart axis labels using the Group feature. When combined, the data associated with labels is aggregated, creating a new summary label category. With grouping, only your view of the data is changed. You can easily ungroup grouped categories and return to your original label values.

For example, your chart report is structured with data item Units (sold) dimensioned by Year and Quarter. You can group the first and second quarters together to summarize activity for the first half of the year. The data is aggregated in a new label.

This feature is available only for items on the x axis or z axis.

- To toggle the group axis labels feature:

### 1 Select the individual labels to be grouped.

(You can group contiguous or discontinuous labels, but the labels must be part of the same dimension item or axis.)

## 2 Select **(Un)Group Items** on the shortcut menu.

The selected labels, and their associated data values or chart objects, are combined. The resulting label is displayed with an asterisk (\*) to indicate a grouping.

To ungroup items, reselect the grouped items and choose *(Un)Group Items* on the shortcut menu.

## Reference and Trend Lines

Use the Reference, and Trend line tools to visually reveal trends in your data set, and to make reasonable predictions about future values. These tools include:

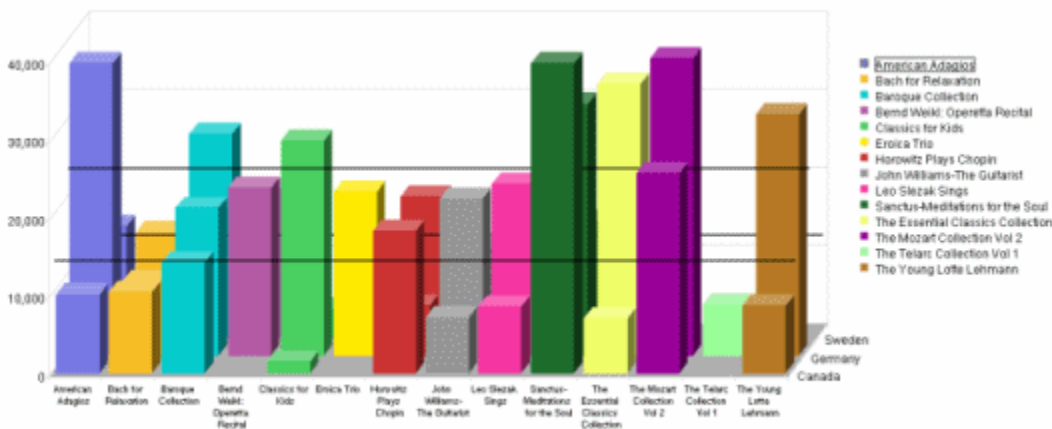
- **Reference Line**—A horizontal or vertical line drawn in the diagram to indicate a user defined computed value.
- **Trend line**—A line connecting two or more data points representing a linear regression model of data. Generally, the trend line slants because it reflects the movement of a value's increase or decrease over time.

## Reference Lines

A Reference Line is a horizontal or vertical line drawn in the chart diagram to indicate a computed value. It is typically used to illustrate or compare a fixed value within a category of values. It can include an assigned statistical function (average, minimum or maximum). There can be several reference lines created for the same fact column having different statistical functions associated with each one. When the statistical function of a reference line is calculated, not only the data from current page, but also the data from all pages of a multi-page chart (or zoomed chart) are included. The category items that are hidden as a result of applying 'Hide Items' or 'Focus on Item' or 'Drill Anywhere' are not included.

Reference lines can be drawn on the top of visible graphic elements of a diagram (for example, bars or lines). By default the lines are drawn on the top. Reference lines can be shown with a text label, and reference line information in the legend. By default a reference line has a text label associated with it showing auto-generated text. This line is set automatically and cannot be adjusted by a user.

This example shows a fact based reference line associated with an Amount Sales fact column assigned to the Average function.



## 2D and 3D Reference Lines

Reference lines should be used primarily with two dimensional perspective, but are supported with a three dimensional (3D) perspective. If they are used with a 3-D perspective, several parallel lines are drawn along the Z-axis together with graphical data.

## Reference Lines and Chart Types

The Stacked Bar, Stacked Area charts both allow axis-based and fact-based Reference lines. A single fact-bound Reference Line is drawn for summed stacked items.

A Pie chart cannot have any type of reference line.

The fact based reference line is always associated with a fact column. When the column is removed from the Chart data layout, the corresponding reference line is also removed. When the fact column is hidden or focused, the reference line is also hidden, or focused.

If the chart type is switched to another chart type, the Reference Lines is hidden. Switching back to the original chart type restores the lines.

## Adding and Modifying Reference Lines

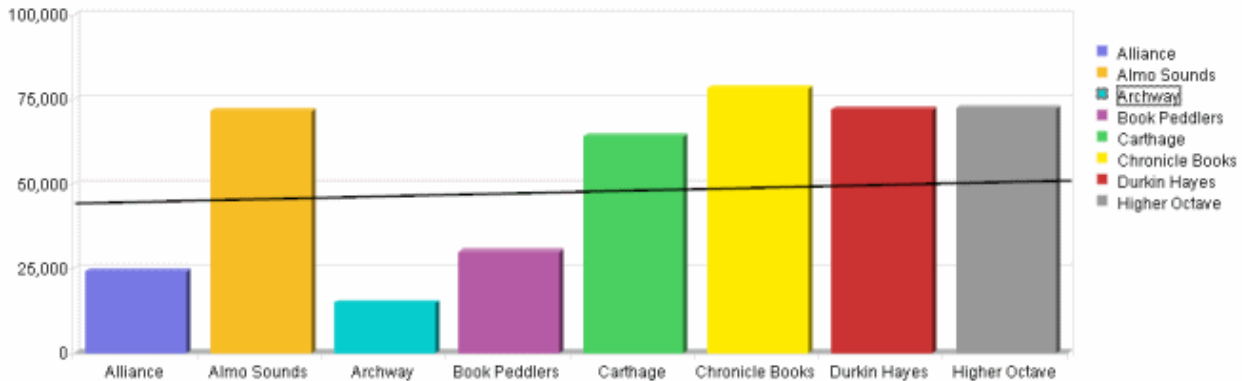
- To add a reference line, select a chart item that represents a data fact and on the shortcut menu, select **Add Reference Line**.
  
- To modify a reference line:
  - 1 **Double-click the reference line.**  
The Reference Properties dialog box is displayed.
  - 2 **Select the Reference Line tab.**
  - 3 **Select Fixed** to assign an axis based reference line, or a fact item from the **Fact** drop-down.
  - 4 To assign a statistical function to a fact based reference line, select a function from the **Function** drop-down list.
  - 5 Enable **Show in legend** to show the reference line in the legend.
  - 6 Enable **Show label** to show the reference line label.  
For more information about general reference lines, see [Reference Line General Properties](#) .
  - 7 **Select the Label Format tab** to select any label properties.  
For more information about reference line label formats, see [Reference Line Label Format Properties](#) .
  - 8 **Select OK.**

## Trend Lines

Trend lines are used to track trends in a data series graphically. Interactive Reporting supports trend lines modeled after linear regression analysis. Generally the trend line is represented as a slanted line that crosses the diagram. For example, the trend line can demonstrate an increase or decrease of values over time. It may be accompanied with the calculated goodness of fit (R-squared) value.

Trend lines can be layered on top of the chart graphics (or Z axis for 3 D charts), or positioned to the background. When data is processed to create the trend line, facts from all pages of the chart are included. Chart items hidden or focused explicitly by the user are not included.

Trend lines are always fact based, and only one trend line can be associated with a single fact column. In Scatter and Bubble charts, the trend line is bound to the data series.



## 2D and 3D Trend Lines

Trend lines should be used primarily with two dimensional perspective, but are supported with a three dimensional (3D) perspective. If they are used with a 3-D perspective, several parallel lines are drawn along the Z-axis together with graphical data.

## Trend Lines and Chart Types

Trend lines can be added to most chart type including stacked charts (Bar and Area). The value of each stack is included when the trend equation is calculated. When the separate stackables of a full bar belong to different facts, then a single trend for all facts is drawn. The sum of separate facts (either positive or negative) is included when calculating the trend line equation.

Trend lines are most effect in Scatter, Bubble and Time Aware charts.

A trend line with a single category on the X axis is preferable. In cases where there are multiple categories on the X axis, it might be difficult to analyze the trend if the categories are unrelated.

Pie charts cannot have trend lines.

## Adding a Trend Line

- To add a trend line, select a chart item that represents a data fact and on the shortcut menu, select **Add Trend Line**.

## Trend Line General Properties

Use the Trend Line Properties dialog box to select general trend line properties.



**Table 41** Trend Line General Properties

Property	Description
<b>Fact</b>	Select the fact item on which to assign the trend line. Multiple trend lines cannot be assigned to a single fact item.
<b>Show in legend</b>	Enable to show assigned text of the trend line and short line segment representing the actual color of the line in the legend.
<b>Show label</b>	Enable to show the label text on the diagram.
<b>Bring to front</b>	Positions the reference line in front of the chart item.
<b>Send to back</b>	Positions the reference line in back of the chart item.

## Trend Line Label Format Properties

Use the Trend Line Label Format dialog box to set up the line label and legend text.

**Table 42** Trend Line Label Format Properties

Property	Description
<b>(Text Format for Plot Area or Legend)</b>	Format text for the plot area (line label) or legend text from the drop-down. If the “Use the same format in plot area and legend” field is enabled, this option is disabled.
<b>(Custom Format)</b>	Specify a custom format for the plot area or legend. A custom format can combine constant text and generated strings to show the trend line name, the equation type, or a coefficient of determination (R-squared). Trend line formats default formats that can be customized include: <ul style="list-style-type: none"> <li>● Trend{([FC])}—Trend(&lt;Fact name&gt;)</li> <li>● [ET]—Equation Type (Linear only)</li> <li>● {R squared=[RS]}—Coefficient of determination (how good the fitness is), for example, R-squared=0.7349</li> </ul>
<b>Use the same format in plot area and legend.</b>	Enable to use same format for the plot area and legend. When this option is enabled, you cannot select separate formats for the plot area and legend.
<b>Auto format</b>	The following Default, Equation type and R-squared fields can be enabled to reset the label text to auto-generated text on the line. Each field adds predefined tags to the text format. If no auto-format is enabled you can enter a custom format in the edit box.
<b>Default</b>	Shows the default text: “Trend(<Fact name>)”
<b>Equation Type</b>	Shows the equation name in auto-generated text, for example: linear. <b>Note:</b> As of Release 11.1.1 only the linear equation type is available.
<b>R-squared</b>	Shows coefficient of determination (how good the fitness is, or how good the trend line conforms to the data) in a value range from 0-1, for example R-squared=0.7349.

## Reference Line General Properties

**Table 43** Reference Line Properties

Property	Description
<b>Fixed</b>	Enable to assign a fixed value to the reference line (axis based).
<b>(edit box)</b>	Specify the fixed value amount to use for the reference line. The amount must be numeric. It remains constant on the reference line, and does not depend on another item in the Fact pane of the data layout.
<b>Fact</b>	Select the fact based column for the reference line from the drop-down. Available columns are based on the columns in the data set.
<b>Function</b>	Select the function to apply to the fact based column. Available functions are: <ul style="list-style-type: none"><li>● Average</li><li>● Maximum</li><li>● Minimum</li></ul>
<b>Show in legend</b>	Enable to show assigned text of the reference line and short line segment representing the actual color of the line in the legend.
<b>Show label</b>	Enable to show the label text on the diagram.
<b>Bring to front</b>	Positions the reference line in front of the chart item.
<b>Send to back</b>	Positions the reference line in back of the chart item.

## Reference Line Label Format Properties

Use the Reference Line Label Format dialog box to define line label (plot area) and legend text properties.

**Table 44** Reference Line Label Format Properties

Property	Description
<b>(Text Format for Plot Area or Legend)</b>	Formats text for the plot area or legend from the drop-down. If the “Use the same format in plot area and legend field” is enabled, this option is disabled.

Property	Description
<b>(Custom Format)</b>	<p>Specify a custom format for the plot area or legend.</p> <p>A custom format can combine constant text and generated strings for a statistical function or the value of the reference line.</p> <p>Constant text accepts the following tags:</p> <ul style="list-style-type: none"> <li>● [FC]—fact name</li> <li>● [VL]—value of reference line.</li> </ul> <p>For example, the custom format: “Expected sales = [VL]” could return the results in the label or legend: “Expected sales = \$26300000”. If the text for a tag cannot be generated (for example, the format is for an [FN] tag on an axis based reference line), the tag resolves in an empty string, and it is removed.</p> <p>A custom format can include complex tags combining arbitrary text with one or more simple (and even complex) tags. A complex tag is bounded by curly braces ({}), for example, “{Sales [FN] = }[VL]”. If at least one of the tags inside the complex tag cannot be resolved, all complex tags result in an empty string.</p> <p>A fact based reference line using the format above might be resolved in a “Sales Average = \$126000” string, and for an axis based reference line it could be resolved in a “\$126000” string.</p> <p>The special delimiter tag, [DL] is available. This tag inserts a space in the resulting string if both the left and right tags are successfully resolved.</p> <p>The complex tag, { ; [DL] } inserts custom text as a delimiter. For example, the format “{[FN]([FC])}{ = [DL]][VL]” may result in one of the following strings depending on conditions:</p> <ul style="list-style-type: none"> <li>● Average(Sales)</li> <li>● Average(sales) = \$126000</li> </ul>
<b>Auto format</b>	The following Default, Function and Value fields can be enabled to reset the label text to auto-generated text on the line. Each field adds predefined tags to the text format. If no auto-format is enabled you can enter a custom format in the edit box.
<b>Default</b>	Show the default text: “<Function name>(<Fact name>) = <Value>”
<b>Function</b>	Shows the statistical function in auto-generated text, for example: Average.
<b>Value</b>	Shows the value of the reference line, for example: Value = 0.7348.

## Working with Chart Facts

Data functions in the Chart section are particularly useful if you want your report to display different types of values. Data functions summarize groups of database records and replace the original values with new summary data.

For example, in the Pivot section, you can show either the total sale, average sale, or the maximum sale of each product by quarter. Each of these dimensions is based on the same underlying values. They differ only in the data function that is applied.

The following table shows the Chart Functions:

**Table 45** Chart Data Functions

Data Function	Returns the:
<b>Sum</b>	Sum of all underlying values.
<b>Average</b>	Average of all underlying values.
<b>Count</b>	Number of underlying values.
<b>Count Distinct</b>	Number of distinct values in a column.
<b>Maximum</b>	Highest of underlying values.
<b>Minimum</b>	Lowest of underlying values
<b>Perc of Grand</b>	Sum of underlying values as a percentage of all surface values in the report.
<b>NonNullCount</b>	Number of underlying values; null values are excluded.

► To apply a data function:

- 1 Select a bar or row of facts (such as Amount).
- 2 Select **Data Function** on the shortcut menu.

A shortcut menu of available data functions is displayed.

**Optional:** You can also select the item or column and choose **Actions, then Data Function**, and select the (function).

- 3 Select the function.

Each column is recalculated according to the data function applied to the underlying value.

## Paging Through the Chart

By default Interactive Reporting shows a fixed number of rows in a table when a user views a page in a browser. Often data extends beyond the vertical and horizontal rows shown on the page. To view your paging options, see the table below.

**Table 46** Chart Paging Options

Paging Option	Description
<b>Current Page</b>	Tooltip shows the current page.
<b>Page Left</b>	Moves one view in the left direction. To move to the first view in the left direction, select [Shift] + Click + left arrow.
<b>Page Up</b>	Moves one view up in the Chart sections. To move to the top view, select [Shift] + Click + Up.
<b>Page Down</b>	Moves one view in the down direction. To move to the first view in the down direction, select [Shift] + Click + Down arrow.
<b>Page Right</b>	Moves one view in the left direction. To move to the first view in the right direction, select [Shift] + Click + right arrow.

## Pivot Section

Pivot tables are analytical tools that resemble spreadsheets or crosstab reports. Data can be sliced and diced for ad-hoc, interactive and multidimensional analysis. You can pivot your data at any time to change the way you view it, or you may drill down, or drill to detail to see how it all adds up or summarizes. Pivot tables also allow you to add, move, focus on and group dimensions to gain customized views of the data.

- [Pivot Table Components](#)
- [Working with Pivot Data](#)
- [Focusing and Hiding Pivoted Data](#)
- [Working with Row and Column Labels](#)
- [Analyzing Pivot Data](#)
- [Working with Pivot Facts](#)
- [Paging Through Pivot Data](#)

## Pivot Table Components

A pivot table is composed of three components:

- **Facts**—Numeric values broken up in the body of the pivot table. Facts may also be referred to as data values.
- **Data Labels**—Column and row headings on the top and sides of the Pivot and define the categories by which the numeric values are organized
- **Dimensions**—Full row or column of labels

## Working with Pivot Data

Interactive Reporting provides several ways for you to dynamically manage your pivot data for better analysis:

- [Adding a Pivot Section](#)
- [Adding Pivot Items](#)
- [Deleting Pivot Items](#)
- [Auto-Sizing a Column](#)
- [Focusing and Hiding Pivoted Data](#)
- [Swinging Pivot Dimensions](#)
- [Grouping and Ungrouping Pivot Labels](#)

## Adding a Pivot Section

► To create a table based on the Results section data:

- 1 Select **Actions**, then **Insert**, and then **Pivot**.
- 2 Drag items from the Catalog list to the Pivot data layout.

If the data layout is not displayed, select **View**, and then **Data Layout**.

Interactive Reporting populates the cells, rows and columns automatically.

## Adding Pivot Items

You can add items from the results set to view and analyze different scenarios in your Pivot.

► To add a pivot item:

- 1 From the Catalog list, select any item and click **Add Items** on the shortcut menu.

A shortcut showing Row, Column or Facts is displayed.

- 2 Select the value you want to add.

## Deleting Pivot Items

► To delete a pivot item:

- 1 Select the item to be removed from the Facts, Rows or Columns data layout.
- 2 Select **Delete** on the shortcut menu.

The Pivot is redrawn to reflect the new configuration of items.

## Refreshing Pivot Values Manually

If a Pivot section has been designed so that pivot values can be refreshed manually, you can request an immediate refresh to the current section.

► To refresh pivot values manually, click anywhere on the pivot and select **Refresh Pivot** on the shortcut menu.

## Auto-Sizing a Column

By default, Interactive Reporting truncates columns evenly and without regard to the length of data values. With the Auto-Size Column Width feature, you can automatically size any column to fit the text of the largest value in the column.

► To autosize a column:

- 1 Select the column.

- 2 Select **Auto-Size Column Width** on the shortcut menu.

## Focusing and Hiding Pivoted Data

A straightforward way to refresh your view of a pivot table is to single out items for closer focus or to hide some of the pivot elements. This allows you to concentrate on particular items of interest.

Focusing redraws the pivot table to show only the item you have chosen to focus on.

The Show All Items command updates the pivot table to include all items removed by focusing. This command is available only when a pivot dimension label has been focused.

Hiding columns is a good way to temporarily suspend the display of a column.

- To toggle the focus on a pivot item:

- 1 Select one or more dimension labels (either side or top).
- 2 Choose **Focus** on the shortcut menu.

The Pivot is redrawn to display only the chart object selected.

- To show all items, select a dimensional label and choose **Show All** on the shortcut menu.

- To hide pivoted data:

- 1 Select an item.
- 2 Select **Hide Items** on the shortcut menu.

The Pivot is redrawn to hide the selected object.

- To restore a selected hidden item, select a pivot item and choose **Show Hidden** on the shortcut menu.

## Working with Row and Column Labels

Row and column labels can be grouped and reoriented:

- [Grouping and Ungrouping Pivot Labels](#)
- [Swinging Pivot Dimensions](#)

### Grouping and Ungrouping Pivot Labels

You can merge pivot labels using the Group feature. When combined, the data labels are aggregated, creating a new summary label category. With grouping, only your view of the data is changed. You can easily ungroup grouped categories and redisplay original label values.

For example, your pivot table is structured with data item Units (sold) dimensioned by Year and Quarter. You can group the first and second quarters together to summarize activity for the first half of the year. The data is aggregated in a new label.

► To toggle the group dimensional label feature:

**1 Select the individual labels to be grouped.**

(You can group contiguous or discontinuous labels, but the labels must be part of the same dimension item or axis.)

**2 Select (Un)Group Items on the shortcut menu.**

The selected labels, and their associated data values or chart objects, are combined. The resulting label is displayed with an asterisk (\*) to indicate a grouping.

To ungroup items, reselect the grouped items and choose *(Un)Group Items* on the shortcut menu.

## Swinging Pivot Dimensions

The swing feature allows you to re-orient the axes of a pivot table and view your data in new ways. When you “swing” a dimension, you can move it up, down or to the opposite axis. This feature is a powerful tool that makes pivot table reporting more powerful than a common spreadsheet.

**Note:** You can swing pivot dimensions by moving items within and between data layout panes.

► To swing a dimensional label:

**1 Select a dimensional label and choose **Swing** on the shortcut menu.**

**2 Select a direction.**

Valid swing positions are:

- Vertical
- Horizontal
- Up
- Down
- Left
- Right
- Before
- After

If you select the “before” swing positions, you must choose the dimension label *before* which you wish to place the selected label. This behavior applies to the “after” selection as well.



## Working with Pivot Facts

Core numeric data that you slice and dice dimensionally in your analysis are called facts. Facts can be summed to create totals.

You can calculate totals for both columns and rows in a Pivot report. If you layered dimension items along the top or side labels of your report, you can calculate the totals for any level in the hierarchy. When you select an inner dimension for totaling, subtotals are created for each of the categories in the outer dimensions. Totals in the Pivot section include:

- [Total Function](#)
- [Cumulative Totals](#)
- [Surface Values](#)

### Total Function

You can quickly add totals to your pivot table data. The new total value is created as an additional column. Total functions can be applied to:

- Underlying values from the original results sections
- Surface values displayed in the Pivot

Depending on which set of values you apply the total function, different results are yielded. Consider a simple pivot table with two values of 20 and 30. Each of these is already a total of underlying values ( $20 = 8 + 12$  and  $30 = 10 + 20$ ). An average of the underlying value yields the result of  $12.5 = (8 + 12 + 10 + 20) / 4$ . An average of the surface values yields the results  $25 = (20 + 30) / 2$ .

► To add totals to a Pivot:

- 1 **Click a row or column label handle to select it.**

Selecting the outermost label creates a total; selecting an inner label creates a subtotal.

- 2 **Select **Add Total** on the shortcut menu.**

A submenu of data functions is displayed.

- 3 **Select a data function.**

### Cumulative Totals

By adding cumulative running totals to a pivot table, you can break totals by dimension to restart at each dimensional grouping in the report.

► To add a cumulative calculation:

- 1 **Select a fact item in the data grid of the Pivot.**

- 2 **Select **Add Cume** on the shortcut menu.**

The Add Cume shortcut menu is displayed.

### 3 Select a scope from the Add Cume shortcut menu.

A new data values item named “Cume of X” is displayed across each row of the report. The new cume item maintains a cumulative running sum of the original data values item.

**Note:** Cumulative totals are most effective when all dimensions are located on a row or column of the report, and data label column heads are placed orthogonally.

► To modify a cumulative calculation:

1 Select a column in which a cume has already been placed in the pivot table’s data grid.

2 Select **Modify Cume** on the shortcut menu.

The Modify Cume submenu is displayed.

3 Select a scope from the **Modify Cume** shortcut menu.

## Surface Values

You can use underlying or surface values when working with totals in Pivot sections. Underlying values refer to values from the original results section. Surface values refer to values in the actual report section. The two approaches yield different results, and produce values that may be displayed incongruous with the values in the report.

To understand this difference between underlying and surface values, consider a simple pivot table with two values of 20 and 30. Each of these is already a total of underlying values ( $20 = 8 + 12$  and  $30 = 10 + 20$ ). An average of the underlying value yields the result of  $12.5 = (8 + 12 + 10 + 20) / 4$ . An average of the surface values yields the results  $25 = (20 + 30) / 2$ . By default, the surface value feature is not active.

► To activate surface values, select a pivot item and **Surface Values** on the shortcut menu.

## Analyzing Pivot Data

Data functions in the Pivot section are particularly useful if you want your report to display different types of values. Data functions summarize groups of database records and replace the original values with new summary data.

For example, in the Pivot section, you can show either the total sale, average sale, or the maximum sale of each product by quarter. Each of these dimensions is based on the same underlying values. They differ only in the data function that is applied.

**Table 47** Pivot Data Functions

Data Function	Returns the:
Sum	Sum of all underlying values.
Average	Average of all underlying values.

<b>Data Function</b>	<b>Returns the:</b>
<b>Count</b>	Number of underlying values.
<b>Count Distinct</b>	Number of distinct values in a column.
<b>Null Count</b>	Number of nulls among underlying values.
<b>Non-Null Count</b>	Number of underlying values; null values are excluded.
<b>Maximum</b>	Highest of underlying values.
<b>Minimum</b>	Lowest of underlying values
<b>% of Row</b>	Sum of underlying values as a percentage of their respective surface row.
<b>% of Column</b>	Sum of underlying values as a percentage of their respective surface column.
<b>% of Grand</b>	Sum of underlying values as a percentage of all surface values in the report.

➤ To apply a data function:

- 1 Select a row or column of facts (such as Amount).**
- 2 Select Data Function on the shortcut menu.**

A shortcut menu of available data functions is displayed.

**Optional:** You can also select the item or column and choose **Actions, then Data Function**, and select the (function).

- 3 Select a function.**

Each column is recalculated according to the data function applied to the underlying value.

## Paging Through Pivot Data

By default, Interactive Reporting shows a fixed number of rows in a table when a user views a page in a browser. Often data extends beyond the vertical and horizontal rows shown on the page. To view your paging options, see the table below.

**Table 48** Pivot Paging Options

<b>Paging Option</b>	<b>Description</b>
<b>Current Page</b>	The tooltip shows the current page in the report.
<b>Page Left</b>	Moves one page in the up direction. To move to the top page, select [Shift] + Click + Up.
<b>Page Up</b>	Moves one page in the down direction. To move to the first page in the down direction, select [Shift] + Click + Down arrow.
<b>Page Down</b>	Moves one page in the left direction. To move to the first page in the right direction, select [Shift] + Click + right arrow.
<b>Page Right</b>	Moves one page in the left direction. To move to the first page in the left direction, select [Shift] + Click + left arrow.

## Common Chart/Pivot Features

Interactive Reporting document file management features allow you to easily tailor the look of reports. The features shown below are common in the Chart and Pivot sections:

- [Sorting Charts/Pivots](#)
- [Drill Anywhere into Charts/Pivots](#)
- [DrillDown into Dimensional Data](#)

### Sorting Charts/Pivots

In the Chart and Pivot sections, data is sorted alphabetically. You can override this default and sort dimensional data with reference to other data, rather than alphabetically.

For example, if a chart lists each type of item your company sells and the total amount sold of each, initially the item types are alphabetically ordered. But this data becomes more meaningful when you instead sort the item types with reference to the total sales revenue produced by each. This approach allows you to rank each product type from highest to lowest total sales.

When you want to apply a sort criteria there are three components used to define the sort condition:

- **Sort Items**—Item sorted in ascending or descending order. In the Chart section, sort items refers to the chart axes. In the Pivot section, sort items refers to the pivot dimensions.
- **Referential Items**—Numeric data item included in the Chart or Pivot section, and also the keyword “labels.” These selections provide two ways to sort the selected Chart or Pivot item.
  - **Sorting by labels**—Dimensional data items are sorted alphabetically by name when the chart section is created: this is equivalent to sorting by “labels.” When selected, the “labels” keyword indicates that the item chosen from the submenu are sorted by label or name rather than by reference to corresponding numeric data values in the report.
  - **Sorting by values**—Sorting by a numeric data item orders each value of the target item specified by its corresponding numeric value in the second list. Sorting by values produces an entirely different sort order. For example, your chart may list each state in which your company has made sales revenue and the total cost-of-sales for each. The data items are initially listed in alphabetical order, that is, sorted by “labels.” When you sort instead by cost-of-sales, the states are ranked in order by each corresponding cost-of-sales figure.
- **Functions**—Aggregate statistical functions available when you sort by values. The functions generally duplicate the data functions available in the chart section.

When you sort by values, dimensional data is sorted by the corresponding numeric values of the referenced item. (For example, sorting states by the sum total of the cost of good sold in each state).

➤ To specify a sort:

- 1 Select an item to sort in the Chart or Pivot sections.

- 2 Click **Sort Ascending** or **Sort Descending** on the shortcut menu.
- 3 Select **Label** to sort the item alphabetically, or select the numeric value item as a sort reference.
- 4 If you selected a numeric value, choose an aggregate function on the shortcut menu.

## Drill Anywhere into Charts/Pivots

The Drill Anywhere feature allows you to drill into and add items in the Chart and Pivot sections that are resident in the Results section, but have not been included in the Chart and Pivot you are viewing. Drill anywhere items are broken out as a new label item(s) automatically. The advantage of this feature is that it instantly allows you to add items to the data set to reflect temporary and hypothetical situations.

The extent to which you can drill into your data depends on how the original query was built, since Drill Anywhere retrieves data from the Results section.

► To drill anywhere into a Chart:

- 1 Select a pivot dimension or chart item for analysis.
- 2 Select **Drill Anywhere** on the shortcut menu.

A shortcut of drill anywhere items displays.

- 3 Select an item on which to drill down.

The report is redisplayed, breaking out the additional data as a new label item.

**Note:** If no options are available in the Drill Anywhere drop down list, all available items have been referenced in the chart.

## DrillDown into Dimensional Data

The DrillDown feature enables you to use a predefined drill-down path to go directly to the next item in a hierarchy when working with dimensional analysis. For example, you may need to find out if a particular product sells better in different regions of the country. Using a drill-down path, all you have to do is follow the drilldown path to discover which state or even city is a more appropriate market for your product.

► To drill down into a Pivot or Chart label:

- 1 Select any label for drill-down analysis.

Because the drill-down into feature is not context sensitive, access the drill-down from any label shown.

- 2 Click **Drilldown into** on the shortcut menu.

All available drill-down paths are displayed. Each drill-down path shows the topic which is being drilled into, and the label from which it was drilled.

- 3 Click the drill-down label.

After you specify the drill down label, the label is added to the data layout and breaks out the additional data according to the label selected for drill-down.

► To drill up from data:

- 1 Click the label that has been drilled down.
- 2 On the Pivot or Chart menu, select **Drill Up**.

The report is redisplayed, reversing the drill-down and displaying the original item.

## OLAPQuery Section

The OLAPQuery section is designed for viewing and analyzing queries based on multidimensional databases (MDD). This section includes the following topics:

- [Working with OLAP Data](#)
- [OLAP Data Functions](#)

## Working with OLAP Data

Interactive Reporting provides several ways for you to dynamically manage your OLAP data for better viewing analysis:

- [OLAP Terminology](#)
- [Auto-Sizing a Column](#)
- [Sorting OLAP Dimensions](#)
- [Drilling into OLAP](#)
- [Drilling up](#)

### OLAP Terminology

**Cube**—Data in OLAP databases is stored in cubes. Cubes are made up of dimensions and measures. A cube may have many dimensions.

**Dimensions**—In an OLAP database cube categories of information are called dimensions. Some dimensions could be Location, Products, Stores, and Time.

**MDX**—MDX (Multi Dimensional eXpressions) is the language used to give instructions to OLE DB for OLAP- compliant databases. When an OLAP query section is built, Interactive Reporting is translating those into MDX instructions. When the query is refreshed, MDX is sent to the database server. The data the server returns to the Interactive Reporting document file is the collection of records that answers the query.

**Measures**—Measures are the numeric values in an OLAP database cube that are available for analysis. The measures could be margin, cost of goods sold, unit sales, budget amount, and so on.

**Members**—In a OLAP database cube, members are the content values for a dimension. In the location dimension, they could be San Francisco, Japan, Paris, 35 Main Street, Tokyo, USA, France, Rome, and so on. These are all values for location.

**Multidimensional**—Multidimensional databases create cubes of aggregated data that anticipate how users think about business models. These cubes also deliver this information efficiently and quickly. Cubes consist of dimensions and measures. Dimensions are categories of information. For example, locations, stores and products are typical dimensions. Measures are the content values in a database that are available for analysis.

## Auto-Sizing a Column

By default Interactive Reporting truncates columns evenly and without regard to the length of data values. With the Auto-Size Column Width feature, you can automatically size any column to fit the text of the largest value in the column.

► To auto-size a column:

- 1 Select the column.
- 2 Select **Auto-Size Column Width** on the shortcut menu.

## Sorting OLAP Dimensions

In the OLAP section, data can be sorted in ascending or descending order.

► To specify a sort:

- 1 Select an item to sort in the OLAP sections.
- 2 Select either **Sort Ascending** or **Sort Descending** on the shortcut menu.
- 3 Select *Label* to sort the item alphabetically, or select the numeric value item as a sort reference.
- 4 If you select a numeric value, choose an aggregate function on the Function shortcut menu.

## Drilling into OLAP

The Drill Down feature retrieves data from the MDD cube following the hierarchy down to the granular level. When you find a specific item to learn more about, such as a product line, you can drill down into the item label. You can drill down on more than one item and additionally drill down on all items at the same time.

For a member drill down, any row or column label can be drilled into so that you can view the structure of the hierarchies for any particular dimension. Every time you select a specific label in a dimension row or column, you show only the data for that label value. When you select the dimension tab for a level, you show all the members of that dimension level.

For a measure drill down, you can show how different measures consolidate together. A drill down on a measure is done on a progressive basis, one level at a time on a 1 to n path (sequential rather than nested). For example, if Profit is the parent of Tax and Pre-Tax Profit, and Revenue

and Expenses are children of Pre-Tax Profit, then the Tax and Pre-Tax columns are drilled down first and you must select the Pre-Tax label to display the Revenue and Expense columns.

**Note:** You cannot set filters while in a drilled-down state on a dimension.

- To drill down on a label:
  - 1 Select a label.
  - 2 Click **Drill Down** on the shortcut menu.

You can select a label and choose **Action**, then **Drill Down**.

**Note:** Essbase only: For a measure drill down, you can show how different measures consolidate together. A drill down on a measure is done on a progressive basis, one level at a time on a 1 to n path (sequential rather than nested). For example, if Profit is the parent of Tax and Pre-Tax Profit, and Revenue and Expenses are children of Pre-Tax Profit, then the Tax and Pre-Tax columns are drilled down first and you must double-click the Pre-Tax label to display the *Revenue* and *Expense* columns.

### Drilling up

If you used the drill-down feature, you return to your original view of the data by drilling up one level at a time. To drill up, you simply select the level to drill up.

- To drill up on a label:
  - 1 Select the label that has been drilled down.
  - 2 Select **Drill Up** on the shortcut menu.

**Optional:** You can also select a label and choose **Action**, then **Drill Down**.

## OLAP Data Functions

Column or row totals added to your OLAPQuery are aggregates (literally, totals of totals), and can be recalculated using data functions. When applied to totals, data functions apply to the calculation to “surface” values.

When applied to surface values, data functions recalculate the values in the visible cells or “surface” of the OLAPQuery. For example, you can show the total sale, average sale, and maximum sale of each product by Quarter. Each of these dimensions is based on the same value. They only differ in the data function that is applied.

**Table 49** OLAP Data Functions

Data Function	Returns the:
Sum	Sum of all values



<b>Data Function</b>	<b>Returns the:</b>
<b>Average</b>	Average of all values
<b>Count</b>	Number of values
<b>Maximum</b>	Highest value
<b>Minimum</b>	Lowest value
<b>% of Row</b>	Surface values as a percentage of their respective row item
<b>% of Column</b>	Surface values as a percentage of their respective column item
<b>% of Grand</b>	Surface values as a percentage of all like values in the report

► To apply a data function:

**1 Select a row or column of facts (such as Amount).**

**2 Select Data Function.**

A list of available data functions is displayed.

**Optional:** You can also select the item or column and choose **Actions**, then **Data Function**.

**3 Select the function.**

Each column is recalculated according to the data function applied to the underlying value.

## CubeQuery Section

The CubeQuery section is the Interactive Reporting interface with Essbase 7.x, and 9.x databases. It provides access to the cube in which multidimensional data can be analyzed and complex calculations can be applied before and after the query is processed. The data set from this section can be shown with relational data side-by-side in a dashboard report, or the data can be downloaded to a results set and joined to relational sources.

## About Essbase

Analytic Services is a multidimensional database application that enables you to analyze multiple aspects of your business continually in comparison to one another. The Essbase database has the following characteristics:

- Works with multidimensional data and roll-up hierarchies in dimensions.
- Retrieves information from other systems.
- Handles some level of summarized data, not transaction.
- Adaptable to multiple reporting and analysis environments.

Additionally the Essbase database uniquely blends an innovative technical design with an open, client-server architecture. Essbase can be used for a broad range of online analytical processing (OLAP) applications, including:

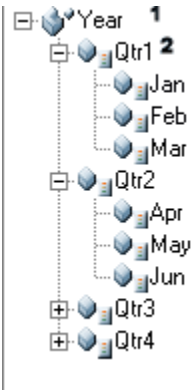
- Budgeting
- Forecasting and seasonal planning
- Financial consolidations and reporting
- Customer and product profitability analysis
- Price, volume and mix analysis
- Executive information systems

## About Multidimensional Database

The Essbase multidimensional database stores and organizes data. It is optimized to handle applications that contain large amounts of numeric data and that are consolidation-intensive or computation-intensive. The database organizes data in a way that reflects how users want to view the data.

### Definition of Multidimensional

A multidimensional database is an extended form of a two-dimensional data array, such as a spreadsheet, generalized to encompass many dimensions. Dimensions are composed of values called members, which are arranged in a hierarchical structure. A *dimension* is a perspective or view of a specific dataset. A system that supports simultaneous, alternate views of datasets is *multidimensional*. Dimensions are categories such as time, accounts, product lines, markets and so on. Each dimension contains additional categories that have various relationships one to another. Members are the names of the elements within a dimension. A dimension can contain an unlimited number of members.



Number	Description
1	Dimension
2	Member

## Dimensions and Members

Dimensions and members describe the metadata structure of the database, which is also known as the Essbase outline. The Essbase outline determines how data is stored in Essbase. Following are typical examples of dimensions and their members:

- **Time**—Hours, Days, Months, Quarters, Years
- **Measures**—Profit, Inventory, Ratios
- **Product**—Individual products of the company
- **Market**—North, South, Central
- **Scenario**—Actual, Budget, Variance, Variance %

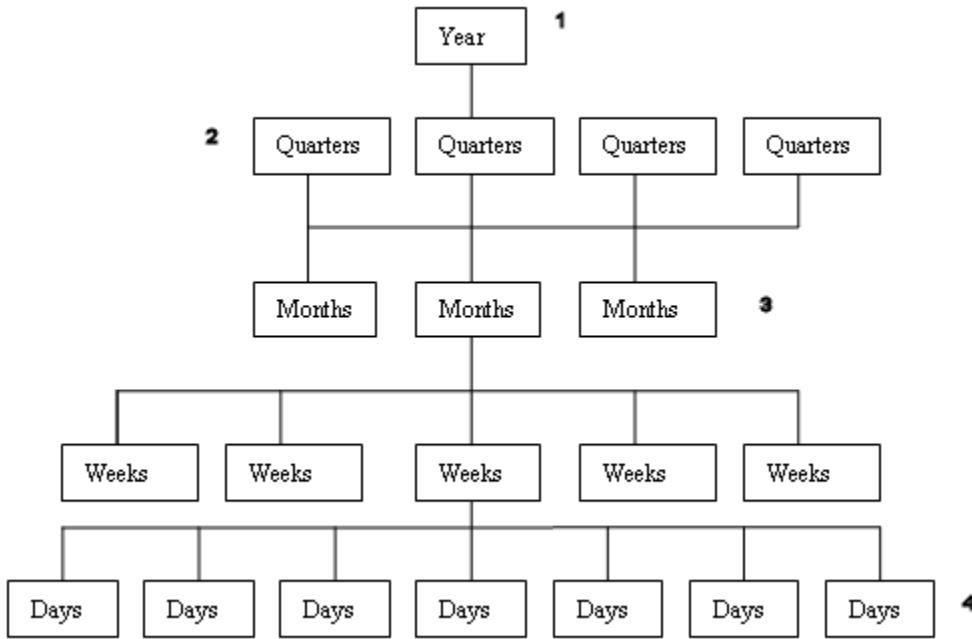
## Non-Aggregate Dimensions

Some dimensions are aggregates of their members. For example, 24 hours make a day, 7 days compose a week, 52 weeks make a year, and so on. In these cases, the Time dimension represents the sum of its components. However, some dimensional hierarchies are not the sums of their components. For example, the Measures dimension commonly comprises business measures such as Sales, Profit, and Cost of Goods Sold. When the dimension label cannot represent the sum of contents, a protocol replaces the dimension label with a member set. Essbase uses the first child in the dimension outline as the implied share instead of non-aggregate dimension labels.

## Familial Relationships

To simplify the concept of hierarchical order, Essbase uses familial relationships.

- **Parent**—Direct ancestor of an element in a hierarchy; for example, Quarters are the parent of Months.
- **Child**—Direct descendant of any element in a hierarchy; for example, Months are children of Quarters.
- **Descendants**—Elements of greater detail; for example, Days are descendants of Weeks.
- **Ancestors**—Elements of more generality; for example, Weeks are ancestors to Days.
- **Siblings**—Members with the same parent

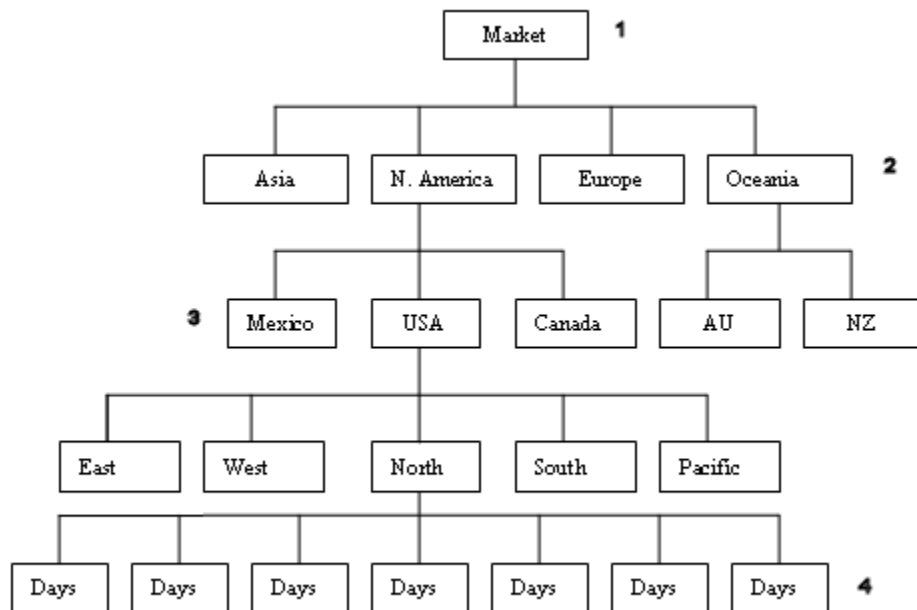


Number	Description
1	Ancestor
2	Parent
3	Child
4	Descendent
5	Siblings (not marked)

## Generations and Levels

Hierarchical structure also can be described in terms of generations and levels. Dimension members on the same layer of the dimensional hierarchy are referred to collectively as generations or levels. The relationships are defined as follows:

- **Generations**—Counted down from the highest ancestor. The root member, or dimension name, is Generation 1. In the following figure, Market is Generation 1
- **Levels**—Counted from bottom to top: Level 0, Level 1, Level 2, and so on. In the following figure, states are at Level 0
- **Leaf nodes**—Lowest points in a hierarchy



Number	Description
1	Ancestor
2	Parent
3	Child
4	Descendent

## Attributes


In addition to dimension member names, locations, and relationships, Essbase stores characteristics, called attributes, about members. For example, the Product dimension indicates that in Women's Apparel, Shirts and Blouses, there is a cotton T-shirt; an attribute indicates that the cotton T-shirt is red, cyan, lime, or pink. Essbase does not store data for attribute dimensions as part of the multidimensional database but instead dynamically calculates it upon request. Attribute dimensions are displayed in dimension hierarchies, in the same manner as other dimensions, despite their data being stored differently.

## Catalog List

The Catalog List displays one or all dimensions in a tree model. The tree can be expanded to display additional members, but generations are not included in the hierarchy. For cubes with many members in a dimension, paging facilitates navigation. The number of members that can be displayed in the Catalog and Member Selection is defined in the Number of members to display option in Query Options. The default is 50.

- To display the Catalog in single-dimension mode, select a dimension from the Dimension Selection.

To expand the tree to display additional members in the dimension hierarchy, next to the dimension, click + .

- To display the Catalog in all dimension, click .

## OLAPQuery and CubeQuery Data Layout Differences

OLAPQuery is the pre release 9.3 section used to query a multidimensional database. The data layout tool in OLAPQuery and CubeQuery have these differences:

OLAPQuery Data Layout	CubeQuery Data Layout
Slicer	Filters
Side	Rows
Top	Columns
Filters from multiple members may be selected and applied from a single hierarchy.	One filter member can be selected per dimension. Filters for multiple members within the same dimension are not supported.
Measures are treated as distinct dimensions and can be placed only in the Facts pane of the data layout.	Measures can be placed in the Row, Column, and Filter panes of the data layout.
Member selection in the data layout is unavailable.	Member selections in the Row, Column and Filter panes of the data layout can be edited in the Member Selection dialog box.
Shortcut menu enables access to the Filter dialog box and Remove option.	Shortcut menu enables access to Remove option, Member Selection dialog box, Variable option and Filter option

## Building a CubeQuery

Before you can build a CubeQuery section, you need a published Interactive Reporting database connection file (.oce), and an Interactive Reporting document file (BQY).

- To import a published Interactive Reporting database connection file (.oce):
  - 1 In **Explore**, select **File**, and then **Import File**.
  - 2 Select **Browse**, navigate to the folder where the Interactive Reporting database connection file is located, and click **Open**.  
The File field is populated with the Interactive Reporting database connection file name.
  - 3 Click **Next**.  
The OCE Properties Import dialog box is displayed.
  - 4 Specify a user name and password, and any appropriate data source access settings.

5 Click **Finish**.

➤ To import an Interactive Reporting document file (BQY):

1 Select **File**, and then **Import**.

2 Click **Browse**, navigate to the folder where the Interactive Reporting document file (BQY) is located, and click **Open**.

The File field is populated with the Interactive Reporting document file name.

3 Click **Next**.

The Interactive Reporting Properties Import dialog box is displayed.

4 Specify a connection option in the **Apply Option to All Queries** field

5 Select an Interactive Reporting database connection file (.oce) to associate with the Interactive Reporting document file in the Query/DataModel Connection drop-down, and specify an user name and password.

6 Click **Finish**.

➤ To create a new CubeQuery section based on a previously published Interactive Reporting document file (BQY):

1 In **Explore**, select an Interactive Reporting document file (BQY) that contains a CubeQuery section.

2 Enter your name in the **Host Name** field and password in the **Host Password** field and click **OK**.

3 Select **Actions**, then **Insert**, and then **Query**.

4 Check **Existing Essbase Connection** to select the current Interactive Reporting database connection file (.oce), or select another from the drop-down and click **OK**.


A new Interactive Reporting document file is created.

5 To populate the Catalog List, select **Actions**, then **Retrieve Dimensions**.

The Catalog List shows the dimensions available to add to the query.

6 If prompted, enter your database user name and password in the **DB User Name** and **DB Password** fields and click **OK**.

7 From the Catalog List, select a dimension.

To toggle the Catalog List between single and all dimension modes, click .

8 In the Catalog List, select a member dimension and select **Query**, then **Add to Rows** or **Query** , then **Add to Columns**.

**Note:** Members from the same dimension cannot be split across columns, rows and filters.

9 In the Catalog List, select a measure dimension and select **Query**, then **Add to Rows** or **Query**, then **Add to Columns**.

10 To filter a member, select a member in the Catalog List and select **Query**, then **Add to Filters**.

11 Click **Process**.

**Note:** If missing values are not displayed, it is possible that the Suppress Missing and Suppress Zero options are enabled. These options are enabled by default and can be disabled in the Query Options

## DB Logon

Use the DB Logon dialog box to specify the database name and password used to logon to the Essbase database.

- To specify the database logon, enter the database user name in the **DB User Name** field, and database password in the **DB Password** and click **OK**.

Your database administrator retains a list of all valid logon names and passwords.

## Searching Members

Member search is available for member names, aliases or both in one or more dimensions from the Catalog List. If the Catalog List shows members in single dimension mode, the Search is performed on a selected dimension. If all dimensions are displayed, Search is performed on all dimensions.

- To search members from the Catalog List:

- 1 **Select to search by name, alias, or both.**
- 2 **Enter the text on which to search.**

If you use wildcards in searches, only trailing wildcards are accepted (for example, Cola\*), and not leading wildcards (for example, \*-10).

The ?? (placement position) is a valid search criteria. The ? substitutes one occurrence of a character; and can be placed anywhere in the string.

- 3 Click .

The search results are displayed in the Catalog List, and they can be added to the data layout.

- To close Search, select .

The Search results are cleared.








## Member Selection

An Essbase database may contain hundreds or even thousands of members. Use the Member Selection Browse and Search tabs to refine query member criteria for a selected dimension. The Member Selection dialog box includes dynamic selection functions such as children, descendants, bottom, siblings, or subsets (UDA, Attribute Dimensions, Level and Generation).



The Available pane lists the member hierarchy for the selected dimension. An additional node for substitution variables lists substitution variables for all dimensions; however, if they are selected from another dimension, an error appears when adding the substitution variables to the Selected pane.

The Selected pane lists all member selections. Selections can be a single member or a dynamic selection function (for example, children).

Icon	Dynamic Function	Description
	Member	Currently selected member
	Children	Children of the selected member (one level below)
	Descendants	Descendants of the selected member
	Bottom	Descendants of the selected member on the lowest level of the hierarchy (Level 0)
	Siblings	Members on the same level with the same parent as the selected member
	Same Level	Dimension members on the same level as the selected member
	Same Generation	Dimension members on the same generation as the selected member

## Browsing Members

Use the Member Selection Browse tab to navigate through and select individual members to include in the query.


► To browse and select members:

- 1 In the data layout, on the shortcut menu, select a dimension member and select **Edit**.

The Member Selection dialog box is displayed.

- 2 Select **Browse**.

- 3 Select a member and click **+** to the left of the member name to expand it.

- 4 To include an individual member in the query, select the member in the Available pane and click .

The member is added to the Selected pane.

- 5 To include a dynamic function, on the shortcut menu, select the member in the Available pane and select the function from the submenu:

- Member
- Children
- Descendants

- Bottom
- Siblings
- Same Level
- Same Generation
- Disable or Enable (selected members only)

**6 Click OK.**

➤ To change the member function in the Selected pane:

**1 Select the member to modify.**

Use Shift + click to select multiple and consecutive items. Use Ctrl + click to select multiple, but nonconsecutive items.

**2 To include or exclude a member (for example, “Member+Children” versus “Children”), select the check box next to the member name.**

**3 Click OK.**

➤ To clear an item used in the query without removing it from the Selected pane:

**1 Select the item and choose **Disable** from the shortcut menu.**

**2 Click OK.**


➤ To remove a member or member element:

**1 Select the member in the Selected pane and click .**

Use Shift + click to select multiple and consecutive items. Use Ctrl + click to select multiple, but nonconsecutive items.

The member is moved from the Selected pane.

**2 Click OK.**

➤ To remove *all* members and member elements, select .

The Selected pane is depopulated.

➤ To toggle between including or excluding a member:

**1 Select a member in the Selected pane.**

**2 Select **Disable** to exclude a member, or **Enable** to include a member.**

## Substitution Variables

Substitution variables define global variables that represent Essbase-specific values. For example, CurMonth can be a substitution variable for displaying the latest time period. Rather than constantly updating queries when a value changes, you change only the value for the substitution

variable on the server. Essbase creates substitution variables, but you can specify a substitution variable when selecting members.


► To add a substitution variable:

1 Select a member in the data layout and select **Edit** on the shortcut menu.

The Member Selection dialog box is displayed.

2 Select **Browse**.

3 In the Available pane click + to expand the Substitution Variable node.

4 To include a substitution variable, select the member in the Available pane and click .

5 To include a dynamic function on a substitution variable, on the shortcut menu, select the member in the Available pane and select the desired function from the sub-menu:

- Member
- Children
- Descendants
- Bottom
- Siblings
- Same Level
- Same Generation
- Select Next/Previous
- Subsets

6 Click **OK**.

## Variables

A variable is a constraint placed on the query when the query is processed.

► To use all selected members as a variable (the user is prompted for the values when the query is processed):

1 In the data layout, select a dimension member and select **Edit** on the shortcut menu.

2 Select **Use as variable**.

3 Click **OK**.

## Searching Members

► To search for members:

1 In the data layout, right click a dimension and select **Edit**.

2 Select **Search**.

**3 From the Member Type, select the type of member to search:**

- **Name**—Member Name
- **Alias**—Alternate Names for database members
- **Both**—Member Name and Alias Name

**Note:** To search on alias names, enable the Use Alias Tables option and select an alias table in Query Options.


**4 Enter the text string or numeric value to search (a member name or pattern).**

Trailing asterisks and wildcard strings are acceptable. Examples of value text strings: Ja\*, M?n, and M??n. Examples of invalid text strings: \*-10 and J\*n.

**5 To locate all member within the selected dimension that matches the text string or numeric value, click**



The results of the search populate the Available pane.

**6 Optional: To add a member to the Selected pane, click** 

**7 Click OK.**

## Filter Member Selection

All data object intersections are relative to filter member selections, which focus intersections and data values, and, consequently, analysis. Filter-axis dimensions are by default represented by the highest aggregate member defined in the data source. To focus analysis on members other than the highest aggregate, you can select one filter member per dimension. Filter member selections do not rearrange dimensions or reorganize pages but focus analysis on intersections.

Use Filter Selection tabs to navigate through, search, or select the members to use in a filter definition.

## Browsing Filter Members

Use the Filter Selection Browse tab to navigate through and select individual members to use as a filter.

► To browse and select members:

**1 In the Filter pane of the data layout, select a dimension member and select **Edit** on the shortcut menu.**

The Filter Selection dialog box opens.

**2 Select **Browse**.**

**3 Select a member and click + to the left of the member name to expand it.**

**4 To include a member as a filter in the query, in the Available pane, select the member and click** 

The member is added to the Selected pane.

- 5 To include a member as a dynamic function, in the Available pane, select the member and select **Member** on the shortcut menu.
- 6 Click **OK**.

## Searching Filter Members

Use the Search tab of Filter Selection dialog to search for members within selected dimensions.


**Note:** Only the member names and aliases are displayed and not the fully qualified name (for example, [West].[Salem]) in the Member Selection, Catalog or query results.

► To search for members:

- 1 In the Filter pane of the data layout, right click a member and select **Edit**.
- 2 Select **Search**
- 3 From the **Member Type**, select the type of filter member to search:
  - **Name**—Member Name
  - **Alias**—Alternate Names for database members
  - **Both**—Member Name and Alias Name


- 4 Type the text string or numeric value to search in the text box.

Trailing asterisks and wildcard strings are acceptable. Examples of value text strings: Ja\*, M?n, and M??n. Examples of invalid text strings: \*-10 and J\*n.

- 5 Click  to locate all members within the selected dimension that match the text string or numeric value.

Hovering the mouse over an item in the Location column shows a tooltip with the member's full location path.

The results of the search populate the Available pane.

- 6 **Optional:** To add a member to the Selected pane, click .
- 7 Click **OK**.

**Note:** To add a different member as a filter, first remove the selected member.

**Note:** A Search by Alias name searches the currently selected Alias Table in Query Options when the Use Aliases option is enabled.

## Navigating CubeQuery

For navigating and maintaining data in the CubeQuery section, see:

- [Keep Only](#)
- [Remove Only](#)
- [Suppressing Missing and Zero Values](#)
- [Drilling](#)
- [Drilling to Shared Members](#)

## Keep Only

Focuses one member by allowing you to clear all other dimension member selections except the selected member from the results set. Non-kept members are not available on the Member Selection dialog box.

► To keep specific set members:

- 1 **Select one member or a range of members.**

Use Ctrl + click to keep nonadjacent cells.

- 2 **Select a dimension label and select **Keep Only** on the shortcut menu.**

Only the selected members are shown.

## Remove Only

Clears a dimension member to remove it from the query result set. At least one member must be retained to use this feature. Removed members are not included in the results set, but display on Member Selection dialog box as excluded from the query (flagged with a - or minus sign). To add a member again to the query, the exclusion must be removed from the Selected pane.

► To remove a selected member:

- 1 **Select one member or a range of members.**

Use Ctrl + click to remove nonadjacent cells.

- 2 **Select a dimension label and select **Remove Only** on the shortcut menu.**

The member is removed from the report and the query. To add the member to the query again, add it from the Catalog to the data layout, or select it on the Member Selection dialog box.

## Suppressing Missing and Zero Values

Suppressing missing and zero values in rows and columns prevents irrelevant information from being returned, reduces network traffic, and increases query speed. Query options box enables you to customize how CubeQuery handles missing and zero values, including the text label displayed for these values by default.

- To suppress missing values in rows, select a row and select **Suppress, then Missing rows** on the shortcut menu.

By default missing values are blank.

- To suppress missing values in columns, select a column and select **Suppress, then Missing columns** on the shortcut menu.
- To suppress zero values in rows, select a row and select **Suppress, then Zero rows** on the shortcut menu.

By default zero values are shown as 0 (zero).

- To suppress zero values in columns, select a column and select **Suppress, then Zero columns** on the shortcut menu.

## Drilling

Drilling increases or decreases the display of report detail for dimensions with large amounts of level data. It can consist of drilling down (in many forms) or drilling up. Drilling down retrieves more detailed data within a dimension. You can drill down into more detailed data until the lowest level of a dimension as defined in the database outline is reached.

A before and after drill down example is shown below:

Before drilling:

	<b>Market</b>
	<b>Product</b>
<b>Oct</b>	12,686

After drilling:

	<b>Market</b>		
	<b>Audio</b>	<b>Visual</b>	<b>Product</b>
<b>Oct</b>	3,803	8,883	12,686

In this example, for Oct, you can drill down to Audio and Visual. Drilling up is the opposite of drilling down, where you move up the hierarchy within a dimension to less detailed data. Query Options enables you to customize the behavior of the drill level. Shortcut menus also control the drill levels.

**Note:** You cannot drill down on a Date Time Series member.

► To drill down to more detail:

- 1 Select the member.
- 2 Double-click the member to drill down using the default Drill Level as defined in Query Options.

**Tip:** You can also select a member, and select **Drill. then Down** to drill down using the default drill level defined in Query Options on the shortcut menu.

Additional drill down options include:

- **Down**—Drills down to more dimension detail using the default drill level defined in Query Options.
- **Up**—Drills up to less dimension detail.
- **Next**—Drills down to the children. This is the default Drill Level. For example, a drill on Year retrieves Qtr1, Qtr2, Qtr3, and Qtr4.
- **Bottom**—Drills down to the lowest level of members in a dimension. For example, a drill on Year retrieves Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, and Dec.
- **All Descendants**—Retrieves data for all descendants. For example, a drill on Year retrieves all quarterly and monthly members.
- **Siblings**—Retrieves data for siblings. For example, a drill on Jan retrieves Jan, Feb, and Mar.
- **Same Level**—Retrieves data for all members at the same level. For example, a drill on Sales might retrieve values for COGS, Marketing, Payroll, Misc, Opening Inventory, Additions, Ending Inventory, Margin %, and Profit %.
- **Same Generation**—Retrieves data for all members of the same generation as the selected member or members. For example, a drill on Sales retrieves COGS, Marketing, Payroll, and Misc.

### Sample Drill Through To Relational

The sample below shows the drill through feature applied to a CubeQuery with multiple dimensions in the rows.

The initial CubeQuery section includes:

#### Rows

Jan, Feb, March

100 (children)

200 (children)

#### Columns

East (children)

100 (children)



200 (children)

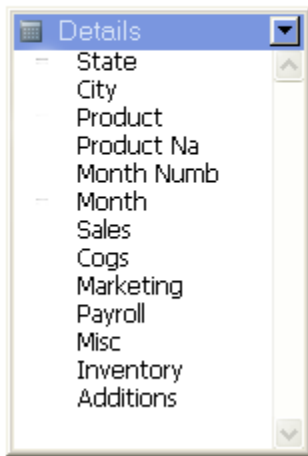
Filters

Sales

		New York	Massachusetts	Florida	Connecticut	New Hampshire
<b>Jan</b>	<b>100-10</b>	678	494	210	310	120
	<b>100-20</b>			200		
	<b>100-30</b>					93
	<b>100</b>	678	494	410	310	213
	<b>200-10</b>	61	126	190	180	90
	<b>200-20</b>			180	130	
	<b>200-40</b>	490	341			65
	<b>200</b>	551	467	370	310	155
<b>Feb</b>	<b>100-10</b>	645	470	200	325	114
	<b>100-20</b>			206		
	<b>100-30</b>					101
	<b>100</b>	645	470	406	325	215
	<b>200-10</b>	61	128	220	155	104
	<b>200-20</b>			180	130	
	<b>200-40</b>	580	340			68
	<b>200</b>	641	468	400	285	172
<b>Mar</b>	<b>100-10</b>	675	492	210	309	119
	<b>100-20</b>			214		
	<b>100-30</b>					107
	<b>100</b>	675	492	424	309	226
	<b>200-10</b>	63	125	227	150	107
	<b>200-20</b>			188	124	
	<b>200-40</b>	523	325			75
	<b>200</b>	586	450	415	274	182

The relational section includes:

Request | Product | Product Na | Month | State | City | Sales | Cogs



The initial results of the relational query are:

	Product	Product Na	Month	State	City	Sales	Cogs
1	100-10	Cola	Jan	Colorado	Aspen	168	73
2	100-20	Diet Cola	Jan	Colorado	Aspen	179	72
3	100-30	Caffeine Free Cola	Jan	Colorado	Aspen	169	68
4	200-10	Old Fashioned	Jan	Colorado	Aspen	29	11
5	200-20	Diet Root Beer	Jan	Colorado	Aspen	141	56
6	100-10	Cola	Feb	Colorado	Aspen	167	72
7	100-10	Cola	Mar	Colorado	Aspen	166	72
8	100-10	Cola	Apr	Colorado	Aspen	4	1
9	100-10	Cola	May	Colorado	Aspen	121	52
10	100-10	Cola	Jun	Colorado	Aspen	64	27

The following topic mappings are defined for the drill through:

**Table 50** Mapping of Relational topics to OLAP Dimensions for Drill Through

Relational	OLAP
Details.State	Market
Details.Product	Product
Details.Month	Year

When the context of New York is 100-10, and Jan. is passed in the CubeQuery, these results are displayed in the relational query:

Filter	Product	Month	State				
	Product	Product Na	Month	State	City	Sales	Cogs
1	100-10	Cola	Jan	New York	Buffalo	478	191
2	100-10	Cola	Jan	New York	Ithaca	9	3
3	100-10	Cola	Jan	New York	Long Island	56	22
4	100-10	Cola	Jan	New York	Manhattan	128	52
5	100-10	Cola	Jan	New York	Millbrook	4	1
6	100-10	Cola	Jan	New York	Poughkeepsie	0	0
7	100-10	Cola	Jan	New York	Yonkers	0	0
8	100-10	Cola	Jan	New York	Yorktown	3	2

## Drilling to Shared Members

You can drill down or drill up on a member that has a shared member defined in the Essbase outline. Essbase determines which members are eligible — the base member or the shared member, and returns drilled or stored members based on the drill path.

This is an Essbase outline:

```

Product
  100
    150 (stored member)
      100-10
      100-20
    Brand1
      150 (shared member)
  
```

The stored member 150 has children; the shared member 150 does not. Drilling up and down on 150 gives different results:

- Drilling down on 150 returns nothing if it is interpreted as the shared member; or, returns 100-10 and 100-20 if it is interpreted as the regular member.
- Drilling up on 150 returns Brand1 if it is interpreted as the shared member; or returns 100 if it is interpreted as the regular member.

The proximity of the shared member to the regular member gives different results when drilling down. When drilling up on a member that has a shared member, Analytic Server looks at the members to determine which one is being queried. For example, drilling up on 100-20 sometimes returns Diet and returns 100. depending on whether Diet or 100 is closest to the member 100-20. If 100-20 is alone, then Essbase determines that this is the regular member. If Diet is closer, then 100-20 may be interpreted as the shared member.

## Drill Through

The Drill Through feature enables users to drill from a data cell or meta data label in a CubeQuery section to an existing relational query section within the same Interactive Reporting document

file. In CubeQuery, drill through “blue indicators” may have been enabled to indicate data cells and metadata labels where drill can be executed. The indicators are displayed for the top/left cell or member label because all data cells and all member labels in a dimension can be drilled on. Drill Through has these characteristics:

- Essbase dimensions are mapped to the target relational fields, so that the member context in the Essbase query can be passed to the relational query as a filter. Drill through to fact items is not available because facts are defined in the relational query section only.
- Drill Through be accomplished at any level of Essbase members in the hierarchy.
- You can drill a to new or existing Results section.

➤ To execute a drill through:

**1 Select a single cell or member label and select Actions, then Drill through.**

A Drill through can only be performed on one label or cell at a time. If multiple metadata labels and/or cells are selected, the option to drill through is not be available .

The Drill to Results dialog box is displayed.

This dialog box is only displayed if the option “Existing Results” was selected when the Drill Through option was defined. You are prompted to enter a user name and password to the relational query.

By default there are new results, and the dialog box is not shown.

**2 Select the target Results section and click OK.**

## Using Swing

Use the Swing feature to swap dimensions between rows and columns from the query. This feature enables you to view your data in new ways, and easily compare the new data to data in the originating table. You swing dimensions by dragging the dimension headers (either column or row) from one position to another using the swing handles. By default swing handles are transparent. They only appear when you select a dimension header. When the swing handle appears, it is shown in white with a light grey handle. Once the selection is off, the handle is transparent again.

➤ To swing a dimension column:

**1 Select a dimension column header (number 1 below) by clicking on the border to the left of the header.**

The swing handle (number 2 below) is displayed to the right of the rows. In this example the *Scenario* dimension header is selected.

	Actual				Budget			
	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
100-10	5,096	5,892	6,533	5,206	6,510	7,410	8,220	6,760
100-20	1,359	1,534	1,528	1,287	2,240	2,480	2,470	2,340
100-30	593	446	400	544	1,040	770	750	950
100	7,048	7,872	8,511	7,037	9,790	10,660	11,440	10,050
200-10	1,697	1,734	1,883	1,887	2,630	2,730	2,900	3,380
200-20	2,963	3,079	3,149	2,834	3,600	3,640	3,700	3,790
200-30	1,153	1,231	1,159	1,093	1,240	1,370	1,300	1,140
200-40	908	986	814	1,384	1,010	1,100	930	1,490
200	6,721	7,030	7,005	7,198	8,480	8,840	8,830	9,800

2 Select the swing handle and drag it to the new position (left/bottom or right/top).

In the example, the handle has been swung downward and to the left of the *Product* dimension:

	Actual				Budget			
	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
100-10	5,096	5,892	6,583	5,206	6,510	7,410	8,220	6,760
100-20	1,359	1,534	1,528	1,287	2,240	2,480	2,470	2,340
100-30	593	446	400	544	1,040	770	750	950
100	7,048	7,872	8,511	7,037	9,790	10,660	11,440	10,050
200-10	1,697	1,734	1,883	1,887	2,630	2,730	2,900	3,380
200-20	2,963	3,079	3,149	2,834	3,600	3,640	3,700	3,790
200-30	1,153	1,231	1,159	1,093	1,240	1,370	1,300	1,140
200-40	908	986	814	1,384	1,010	1,100	930	1,490
200	6,721	7,030	7,005	7,198	8,480	8,840	8,830	9,800

As a result, the *Scenario* dimension is positioned to the left of the *Product* dimension:

		Qtr1	Qtr2	Qtr3	Qtr4
<b>Actual</b>	<b>100-10</b>	5,096	5,892	6,583	5,206
	<b>100-20</b>	1,359	1,534	1,528	1,287
	<b>100-30</b>	593	446	400	544
	<b>100</b>	7,048	7,872	8,511	7,037
	<b>200-10</b>	1,697	1,734	1,883	1,887
	<b>200-20</b>	2,963	3,079	3,149	2,834
	<b>200-30</b>	1,153	1,231	1,159	1,093
	<b>200-40</b>	908	986	814	1,384
	<b>200</b>	6,721	7,030	7,005	7,198
<b>Budget</b>	<b>100-10</b>	6,510	7,410	8,220	6,760
	<b>100-20</b>	2,240	2,480	2,470	2,340
	<b>100-30</b>	1,040	770	750	950
	<b>100</b>	9,790	10,660	11,440	10,050
	<b>200-10</b>	2,630	2,730	2,900	3,380
	<b>200-20</b>	3,600	3,640	3,700	3,790
	<b>200-30</b>	1,240	1,370	1,300	1,140
	<b>200-40</b>	1,010	1,100	930	1,490
	<b>200</b>	8,480	8,840	8,830	9,800

► To swing a row dimension:

- 1 Select an entire dimension row header.

The swing handle is displayed at the bottom of the query:

		Qtr1	Qtr2	Qtr3	Qtr4
<b>Actual</b>	<b>100-10</b>	5,096	5,892	6,583	5,206
	<b>100-20</b>	1,359	1,534	1,528	1,287
	<b>100-30</b>	593	446	400	544
	<b>100</b>	7,048	7,872	8,511	7,037
	<b>200-10</b>	1,697	1,734	1,883	1,887
	<b>200-20</b>	2,963	3,079	3,149	2,834
	<b>200-30</b>	1,153	1,231	1,159	1,093
	<b>200-40</b>	908	986	814	1,384
	<b>200</b>	6,721	7,030	7,005	7,198
<b>Budget</b>	<b>100-10</b>	6,510	7,410	8,220	6,760
	<b>100-20</b>	2,240	2,480	2,470	2,340
	<b>100-30</b>	1,040	770	750	950
	<b>100</b>	9,790	10,660	11,440	10,050
	<b>200-10</b>	2,630	2,730	2,900	3,380
	<b>200-20</b>	3,600	3,640	3,700	3,790
	<b>200-30</b>	1,240	1,370	1,300	1,140
	<b>200-40</b>	1,010	1,100	930	1,490
	<b>200</b>	8,480	8,840	8,830	9,800

- 2 Select and drag the swing handle to the new position (left/right or right/top).

In this example the handle is swing to the right and upward of the query:

		Qtr1	Qtr2	Qtr3	Qtr4
<b>Actual</b>	<b>100-10</b>	5,096	5,892	6,583	5,206
	<b>100-20</b>	1,359	1,534	1,528	1,287
	<b>100-30</b>	593	446	400	544
	<b>100</b>	7,048	7,872	8,511	7,037
	<b>200-10</b>	1,697	1,734	1,883	1,887
	<b>200-20</b>	2,983	3,079	3,149	2,834
	<b>200-30</b>	1,153	1,231	1,159	1,093
	<b>200-40</b>	908	986	814	1,384
	<b>200</b>	6,721	7,030	7,005	7,198
<b>Budget</b>	<b>100-10</b>	6,510	7,410	8,220	6,760
	<b>100-20</b>	2,240	2,480	2,470	2,340
	<b>100-30</b>	1,040	770	750	950
	<b>100</b>	9,790	10,660	11,440	10,050
	<b>200-10</b>	2,630	2,730	2,900	3,380
	<b>200-20</b>	3,600	3,640	3,700	3,790
	<b>200-30</b>	1,240	1,370	1,300	1,140
	<b>200-40</b>	1,010	1,100	930	1,490
	<b>200</b>	8,480	8,840	8,830	9,800

The result of the swing is:

	<b>100-10</b>				<b>100-20</b>				<b>100-30</b>			
	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
<b>Actual</b>	5,096	5,892	6,583	5,206	1,359	1,534	1,528	1,287	593	446	400	544
<b>Budget</b>	6,510	7,410	8,220	6,760	2,240	2,480	2,470	2,340	1,040	770	750	950

Note that the Product dimension is positioned under the Year dimension.

## Downloading to Results

The Download Database Totals feature creates only one column per dimension, and includes all members, and the corresponding data, in the Results set. In addition, a column with each dimension's parent members is also included in the results. By default this option is disabled. Once this option is enabled, any existing Results set is deleted. If this option is enabled through *Tools, then Options, then Program Options, then OLAP*, the option is enabled also in a newly created CubeQuery section.

**Note:** If you use the Download to Results feature, only separate columns in the Results set are created for every generation in every dimension. In addition, only the lowest level member values are imported, with any ancestors for each member (included in the original query) appearing in additional columns.



In the following example:

- All *Product* members, in the query, are listed in only one column and not separated into multiple columns based on Generation. In addition the data values for the upper level Product members are also included in the results.
- Each dimension has an additional column that displays parent members for each member in the query.
  - The *Year* dimension members Qtr1, Qtr2, etc. have their parent member (Year) displayed in the “Year Parent” column.
  - The *Scenario* dimension members Actual and Budget have their parent member (Scenario) displayed in the “Scenario Parent” column.
  - The *Product* dimension members have their respective parent members displayed in the “Product Parent” column.

	Category	Product SKU	Gen2,Scenario	Gen2,Year	Value
1	100	100-10	Actual	Qtr1	5,096
2	100	100-20	Actual	Qtr1	1,359
3	100	100-30	Actual	Qtr1	593
4	200	200-10	Actual	Qtr1	1,697
5	200	200-20	Actual	Qtr1	2,963
6	200	200-30	Actual	Qtr1	1,153
7	200	200-40	Actual	Qtr1	908
8	100	100-10	Budget	Qtr1	6,510
9	100	100-20	Budget	Qtr1	2,240
10	100	100-30	Budget	Qtr1	1,040
11	200	200-10	Budget	Qtr1	2,630
12	200	200-20	Budget	Qtr1	3,600
13	200	200-30	Budget	Qtr1	1,240
14	200	200-40	Budget	Qtr1	1,010
15	100	100-10	Actual	Qtr2	5,892
16	100	100-20	Actual	Qtr2	1,534
17	100	100-30	Actual	Qtr2	446
18	200	200-10	Actual	Qtr2	1,734

➤ To download the query to results, select **Actions**, then **Download to Results**.

The behavior of the Download to Results feature varies for different components in CubeQuery:

- [Separate Columns for Metadata Labels](#)
- [Measure Behavior in Columns and Rows](#)
- [Ragged Hierarchies](#)
- [Shared Members](#)

## Separate Columns for Metadata Labels

Separate columns for metadata labels are displayed for each Essbase generation in the hierarchy.

**Table 51** CubeQuery Requested Items (Profit Member Applied In the Filter)

Product	Qtr1	Qtr2	Qtr3	Qtr4
Cola	5096	5892	6583	5206
Diet Cola	1359	1534	1528	1287
Caffeine Free Cola	593	446	400	544
Cola	7048	7872	8511	7037
Old Fashioned	1697	1734	1883	1887
Diet Root Beer	2963	3079	3149	2834
Sarsaparilla	1153	1231	1159	1093
Birch Beer	908	986	814	1384
Root Beer	6721	7030	7005	7198

**Table 52** Results Set

Category	Product SKU	Year	Profit
Colas	Cola	Qtr1	5096
Colas	Diet Cola	Qtr1	1359
Colas	Caffeine Free Cola	Qtr1	593
Root Beer	Old Fashioned	Qtr1	1697
Root Beer	Diet Root Beer	Qtr1	2963
Root Beer	Sarsaparilla	Qtr1	1153
Root Beer	Birch Beer	Qtr1	908

If only one generation of the hierarchy is in the query, additional columns do not show the parent members in the Results section as shown below:

**Table 53** CubeQuery Requested Items (Profit Member is in the Columns)

	Qtr1	Qtr2	Qtr3	Qtr4
	Profit	Profit	Profit	Profit
Cola	5096	5892	6583	5206
Diet Cola	1359	1534	1528	1287

	Qtr1	Qtr2	Qtr3	Qtr4
Caffeine Free Cola	593	446	400	544
Old Fashioned	1697	1734	1883	1887
Diet Root Beer	2963	3079	3149	2834
Sarsaparilla	1153	1231	1159	1093
Birch Beer	908	986	814	1384
Dark Cream	2544	3231	3355	3065

**Table 54** Results Set

Product SKU	Quarter	Profit
Cola	Qtr1	5096
Cola	Qtr2	5892
Cola	Qtr3	6583
Cola	Qtr4	5206
Diet Cola	Qtr1	1359
Diet Cola	Qtr2	1534
Diet Cola	Qtr3	1528
Diet Cola	Qtr4	1287
Caffeine Free Cola	Qtr1	593
Caffeine Free Cola	Qtr2	446
Caffeine Free Cola	Qtr3	400
Caffeine Free Cola	Qtr4	544

## Measure Behavior in Columns and Rows

In the CubeQuery section, the measure dimension is handled like any other dimension (it can be placed in rows or columns), but a separate results set column is created for each Measure member, whether it is in a row, column, or filter.

**Table 55** Measures in CubeQuery

		Qtr1	Qtr2
Sales	Cola	14585	16048
	Diet Cola	7276	7957

		Qtr1	Qtr2
COGS	Cola	5681	6136
	Diet Cola	3496	3871
	Caffeine Free Cola	1493	1606

**Table 56** Measures in Results Set

Product SKU	Quarter	Sales	COGS
Cola	Qtr1	14585	5681
Diet Cola	Qtr1	7276	3496
Caffeine Free Cola	Qtr1	3187	1493

If no Measures are in the row, column or filter, all data values appear in a Value column.

**Table 57** Values Column in Results Set

Product SKU	Quarter	Value
Cola	Qtr1	14585
Diet Cola	Qtr1	7276
Caffeine Free Cola	Qtr1	3187

## Ragged Hierarchies

Typically in Essbase, an individual hierarchy has the same number of members above it as any other member at the same level. In a ragged hierarchy, the logical parent member for one member is not in the level directly above the member. When downloading to results a query that has a ragged member selection, and where some parent members are not expanded to details, a warning message is displayed: "Note that if the source query results are not fully expanded and/or symmetric, invalid flattened results might be returned." This message is necessary to show "parent context" or shared member parents need to exist in the query in order to determine that they are shared for the results set.

In the following example Qtr2 does not have children in the query. Because only the lowest level members are included in the query, the results set includes: Jan, Feb, Mar, and Qtr2. For the "month" value for Qtr2, the label is blank.

**Table 58** Ragged Hierarchy in CubeQuery Section

	Product
Jan	8024
Feb	8346

	<b>Product</b>
Mar	8333
Qtr1	24703
Qtr2	27107

**Table 59** Ragged Hierarchy in Results Set

<b>Quarter</b>	<b>Month</b>	<b>Gen1,Product</b>	<b>Value</b>
Qtr1	Jan	Product	8024
Qtr1	Feb	Product	8346
Qtr1	Mar	Product	8333
Qtr2	(blank)	Product	27107

If a child member does not have a parent member in the original query, the parent or any other ancestor is included in the Results set:

**Table 60** Ragged Hierarchy in CubeQuery Section

	<b>Product</b>
Jan	8024
Feb	8346
Mar	8333
Qtr1	24703
Dec	8780

**Table 61** Ragged Hierarchy in Results Set

<b>Quarter</b>	<b>Month</b>	<b>Gen1,Product</b>	<b>Value</b>
Qtr1	Jan	Product	8024
Qtr1	Feb	Product	8346
Qtr1	Mar	Product	8333
Qtr4	Dec	Product	8780

## Shared Members

Shared member data can be included in a query, or their totals can be excluded. Each shared member column in the Results set corresponds to an Essbase Generation/Field in the Results set and query. For Shared Members, the parent context must exist in the query. In other words, if

the parent of a shared member is not in the query, the Download to Results feature does not recognize that it is a shared member and determines the parent . That is, the parents of a shared member must exist in the query in order to determine that they are shared for the results set. For example, in the Sample Basic Product dimension, for the second instance of “100-20” (shared member) to be properly accounted for in the Download to Results, its parent “Diet” must be included in the query such as “Diet (Children)”.

**Note:** Shared members are in bold below.

**Table 62** Shared Members in CubeQuery Section

	<b>Qtr1</b>
100-10	5096
100-20	1359
100-30	593
100	7048
200-10	1697
200-20	2963
200-30	1153
200-40	908
200	6721
300-10	2544
300-20	690
300-30	2695
300	5929
400-10	2838
400-20	2283
400-30	-116
400	5005
<b>100-20</b>	1359
<b>200-20</b>	2963
<b>300-30</b>	2695
Diet	7017

	<b>Qtr1</b>
Product	24703

**Table 63** Shared Members in Results Set

Product SKU, Shared	Gen1, Product	Category	Product SKU	Quarter	Value
	Product	100	100-10	Qtr1	5096
	Product	100	100-20	Qtr1	1359
	Product	100	100-30	Qtr1	593
	Product	200	200-10	Qtr1	1697
	Product	200	200-20	Qtr1	2963
	Product	200	200-30	Qtr1	1153
	Product	200	200-40	Qtr1	908
	Product	300	300-10	Qtr1	2544
	Product	300	300-20	Qtr1	690
	Product	300	300-30	Qtr1	2695
	Product	400	400-10	Qtr1	2838
	Product	400	400-20	Qtr1	2283
	Product	400	400-30	Qtr1	-116
<b>100-20</b>	Product	Diet	100-20	Qtr1	1359
<b>200-20</b>	Product	Diet	200-20	Qtr1	2963
<b>300-30</b>	Product	Diet	300-30	Qtr1	2695

If multiple generation dimensions have shared members, one “shared” indication per dimension is created:

**Note:** Shared members are in bold below.

**Table 64** Multiple Dimensions with Shared Members in CubeQuery Section

		<b>Qtr1</b>
Actual	100-10	5096
	100-20	1359
	100	7048

		<b>Qtr1</b>
	<b>100-20</b>	1359
	Diet	7017
Budget	100-10	6510
	100-20	2240
	100	9790
	100-20	2240
	100	9790
	<b>100-20</b>	2240
	Diet	8910
<b>Actual</b>	100-10	5096
	100-20	1359
	100	7048
	<b>100-20</b>	1359
	Diet	7017

**Table 65** Multiple Dimensions with Shared Members in Results set

Scenario, Gen2, Shared	Scenario, Gen2	Product SKU, Shared	Category	Product SKU	Quarter	Value
	Actual		100	100-10	Qtr1	5096
	Actual		100	100-20	Qtr1	1359
	Actual	<b>100-20</b>	Diet	100-20	Qtr1	1359
	Budget		100	100-10	Qtr1	6510
	Budget		100	100-20	Qtr1	2240
	Budget	<b>100-20</b>	Diet	100-20	Qtr1	2240
<b>Actual</b>	Actual		100	100-10	Qtr1	5096
<b>Actual</b>	Actual		100	100-20	Qtr1	1359
<b>Actual</b>	Actual	<b>100-20</b>	Diet	100-20	Qtr1	1359

If a dimension contains shared members at multiple generations, a column is added to the Results set for each CubeQuery generation and Results set column:

**Note:** Shared members are in bold below.



**Table 66** Shared Members At Multiple Generation Level in the CubeQuery Section

	<b>Qtr1</b>
100-10	5096
100-20	1359
100-30	593
100	7048
...	
400-10	2838
400-20	2283
400-30	-116
400	5005
<b>100-20</b>	1359
<b>200-20</b>	2963
<b>300-30</b>	2695
Diet	7017
<b>400</b>	5005
Product	24703

**Table 67** Shared Members at Multiple Generation Level in the Results Set

<b>Category, Shared</b>	<b>Product SKU, Shared</b>	<b>Gen1, Product</b>	<b>Category</b>	<b>Product SKU</b>	<b>Quarter</b>	<b>Value</b>
		Product	100	100-10	Qtr1	5096
		Product	100	100-20	Qtr1	1359
		Product	100	100-30	Qtr1	593
...						
		Product	400	400-10	Qtr1	2838
		Product	400	400-20	Qtr1	2283
		Product	400	400-30	Qtr1	-116
	<b>100-20</b>	Product	Diet	100-20	Qtr1	1359
	<b>200-20</b>	Product	Diet	200-20	Qtr1	2963
	<b>300-30</b>	Product	Diet	300-30	Qtr1	2695

Category, Shared	Product SKU, Shared	Gen1, Product	Category	Product SKU	Quarter	Value
400		Product	400		Qtr1	5005

## Download Database Totals

The Download Database Totals feature creates only one column per dimension, and includes all members, and the corresponding data, in the Results set. In addition, a column with each dimension's parent members is also included in the results. By default this option is disabled. Once this option is enabled, any existing Results set is deleted. If this option is enabled through *Tools, then Options, then Program Options, then OLAP*, the option is enabled also in a newly created CubeQuery section.

**Note:** If you use the Download to Results feature, only separate columns in the Results set are created for every generation in every dimension. In addition, only the lowest level member values are imported, with any ancestors for each member (included in the original query) appearing in additional columns.

In the following example:

- All *Product* members in the query, are listed in only one column and not separated into multiple columns based on Generation. In addition, the data values for the upper level Product members are also included in the results.
- Each dimension has an additional column that displays parent members for each member in the query.
  - The *Year* dimension members Qtr1, Qtr2, etc. have their parent member (Year) displayed in the “Year Parent” column.
  - The *Scenario* dimension members Actual and Budget have their parent member (Scenario) displayed in the “Scenario Parent” column.
  - The *Product* dimension members have their respective parent members displayed in the “Product Parent” column.

	Product Parent	Product	Scenario Parent	Scenario	Year Parent	Year	Value
1	100	100-10	Scenario	Actual	Year	Qtr1	5,096
2	100	100-20	Scenario	Actual	Year	Qtr1	1,359
3	100	100-30	Scenario	Actual	Year	Qtr1	593
4	Product	100	Scenario	Actual	Year	Qtr1	7,048
5	200	200-10	Scenario	Actual	Year	Qtr1	1,697
6	200	200-20	Scenario	Actual	Year	Qtr1	2,963
7	200	200-30	Scenario	Actual	Year	Qtr1	1,153
8	200	200-40	Scenario	Actual	Year	Qtr1	908
9	Product	200	Scenario	Actual	Year	Qtr1	6,721
10	100	100-10	Scenario	Actual	Year	Qtr2	5,892
11	100	100-20	Scenario	Actual	Year	Qtr2	1,534
12	100	100-30	Scenario	Actual	Year	Qtr2	446
13	Product	100	Scenario	Actual	Year	Qtr2	7,872
14	200	200-10	Scenario	Actual	Year	Qtr2	1,734
15	200	200-20	Scenario	Actual	Year	Qtr2	3,079
16	200	200-30	Scenario	Actual	Year	Qtr2	1,231
17	200	200-40	Scenario	Actual	Year	Qtr2	986
18	Product	200	Scenario	Actual	Year	Qtr2	7,030
19	100	100-10	Scenario	Actual	Year	Qtr3	6,583
20	100	100-20	Scenario	Actual	Year	Qtr3	1,528
21	100	100-30	Scenario	Actual	Year	Qtr3	400
22	Product	100	Scenario	Actual	Year	Qtr3	8,511
23	200	200-10	Scenario	Actual	Year	Qtr3	1,883

**Note:** If you open an Interactive Reporting version 11.1.1 document that contains data in Results downloaded from a CubeQuery with version 9.3.1, the existing Results data is not visible. Furthermore, using the “download to results” feature with an Interactive Reporting document created with Interactive Reporting version 11.1.1, the result set will not be the same as it was with version 11.1.1.

➤ To enable download database totals:

- 1 **Select Query, and then Query Options.**
- 2 **Select the Global tab.**
- 3 **Enable Download Database Totals and click OK.**

## Relational Aggregation

When selecting Download Database Totals, aggregations are disabled for all the sections dependent on the Results with database totals. This feature protects users from performing aggregations, where the results maybe double counted. Enabling the option Allow Relational Aggregation allows usage of aggregation in the following sections:

- Break/Grand Totals in Results section
- Data Functions, Totals, Cume in Pivot
- Data Functions in Chart
- Data Functions, Break Totals, Show Column Totals in Report.

- To set relational aggregation:
  - 1 Select **Query Options**, and then **Global**.
  - 2 Enable **Allow Relational Aggregation** and click **OK**.

## Formatting CubeQuery Items

Common formatting options are available for CubeQuery items on the Format and shortcut menus including:

- **Auto-size Width**—By default columns and rows are distributed evenly and without regard to the length of data values, which may be truncated. With the auto-size width feature, you can automatically size any column or rows horizontally to fit the text of the largest value in the column.
- **Auto-size Height**—By default columns and rows are distributed evenly and without regard to the length of data values, which may be truncated. With the auto-size height feature, you can automatically size any column or rows vertically to fit the text of the largest value in the column.
- **Number Format**—Options for changing the way numbers, currency values, and dates are displayed throughout or create new custom formats. See [Number Formatting](#)

- To auto-size the width of a row or column, select the row or column label and choose **Auto-Size Width**.
- To auto-size the height of a row or column, select the row or column label and choose **Auto-Size Height**.

## Query Options

Use the Query Options to define global and local display behavior and drill options. The Query Options dialog box comprises the Global, Display, and Drill tabs.

- To display query options, select **Actions**, and then **Query Options**.

## Global Options

Use the Global tab to set global display behavior in the CubeQuery section.

Design Options	Description
<b>Auto-Refresh Query</b>	Queries the database automatically when an item is added to or removed from the data layout, or when the Suppress and Replace options in Query Options are changed. If Auto-Refresh is disabled, you must click Process to query the database whenever you make a change in the data layout.

Catalog Display Options	Description
<b>Number of members to display</b>	<p>Sets the maximum number of members to display in the Catalog List and Member Selection. The number can be:</p> <ul style="list-style-type: none"> <li>● unlimited</li> <li>● 5</li> <li>● 10</li> <li>● 20</li> <li>● 50</li> <li>● 100</li> <li>● 250</li> <li>● 500</li> </ul> <p>The default number of members is 50. In both the Catalog List and Member Selection, the “more...” node expands to the next set of members.</p>

Results Options	Description
<b>Download Database Totals</b>	Download Database Totals creates only one column per dimension, and includes all members, and the corresponding data, in the results set. In addition, a column with each dimension’s parent members is included. By default this option is disabled.
<b>Allow Relational Aggregation</b>	<p>Enables relational aggregation in the following sections:</p> <ul style="list-style-type: none"> <li>● Break/Grand Totals in Results section</li> <li>● Data Functions, Totals, Cume in Pivot</li> <li>● Data Functions in Chart</li> <li>● Data Functions, Break Totals, Show Column Totals in Report.</li> </ul> <p>When the Download Database Totals option (see above) is enabled, aggregations are disabled for all the sections dependent on the Results sets with database totals. This option protects users from performing aggregations, where the results may be counted twice. By default this option is disabled.</p>
<b>Include Consolidation Information</b>	Enabling this option includes consolidation type/unary operator information of all members from the Data Layout when Download To Results is executed. Disabling the option excludes the consolidation type/unary operator information for each member. By default this option is disabled for newly inserted CubeQuery sections.

## Display Options

Use the Display tab to set row and column suppression criteria, alias information, replacement values, , and label indentation.

Suppress	Description
<b>#Missing Rows</b>	Suppress the return of data rows that contain only missing values. If one value is in the row, the row is not suppressed. By default, this option is enabled.
<b>Zero Rows</b>	Suppress the return of data rows that contain only zeros. By default this option is disabled.
<b>Shared Members</b>	Suppress the return of members tagged as shared. By default, this option is disabled.

Suppress	Description
#Missing Columns	Suppress the return of data columns that contain only missing data. By default this option is enabled.
Zero Columns	Suppress the return of data columns that contain only zeros. By default this option is disabled.

Aliases	Description
Use Aliases	<p>Display aliases when performing database retrievals rather than database member names. Aliases are alternate names for database members. You can retrieve data that uses the database name, which is often a stock number or product code, or an alias, which can be more descriptive.</p> <p>When this setting is updated, this message is displayed: "The OLAP Tree will be updated automatically with new Alias information and the OLAP Query will be re-processed."</p>
Select an Alias Table	Specify the alias table to use for alias names. Each database can contain one or more alias tables.

Replacement	Description
#Missing Label	<p>Specify a label for missing values. For example, you might enter:</p> <p>#Missing</p> <p>By default, the replacement value for a missing label is blank.</p>
#NoAccessLabel	<p>Specify a label for values from the Essbase cube to which a user does not have security access. For example, you might enter:</p> <p>NoAccess</p>
Zero Label	Specify a label for zero values. By default the replacement value for a zero label is blank.

**Table 68** Label Indentation

Option	Description
Indent Each Generation By	<p>Select the number of characters by which each generation in the hierarchy is indented. For example, you can change the following indentation from 1 to 3. This option can take options from 0 to 25.</p> <p>indentation at 1:</p> <p style="padding-left: 40px;">100-10</p> <p style="padding-left: 40px;">100-20</p> <p style="padding-left: 40px;">100-30</p> <p>100</p> <p>indentation at 3:</p> <p style="padding-left: 80px;">100-10</p> <p style="padding-left: 80px;">100-20</p> <p style="padding-left: 80px;">100-30</p> <p>100</p>

## Drill Options

Use the Drill tab to define the next level of data displayed when you drill down in a CubeQuery.

Additionally, the Member Retention option group contains items that enable you to customize drilling retention characteristics.

Drill Level	Description
<b>(Drill Level drop-down)</b>	<p>Defines the next level of data displayed when you drill down from the Query menu, or when you double click a member. Any drill down selection made from the shortcut menu overrides the selection made here. For example, if you select Bottom Level, data for the lowest level of members in a dimension is retrieved. A drill-down on Year retrieves: Jan, Feb, Mar, Apr, Ma, Ju, Jul, Aug, Sep, Oct, Nov, and Dec.</p> <p>Valid drill down levels are:</p> <ul style="list-style-type: none"><li>● Next Level</li><li>● Bottom Level</li><li>● All Descendants</li><li>● Sibling</li><li>● Same Level</li><li>● Same Generation</li></ul>

Member Retention	Description
<b>Include Selection</b>	Retains the selected member along with the other members retrieved as a result of a drill down. For example, if you drill down on Qtr1, the data for Jan, Feb, and Mar, as well as Qtr1, is retrieved. When this option is disabled, the data for only for Jan, Feb, and Mar, is retrieved: Qtr1 is eliminated. By default this option is enabled.
<b>Within Selected Group</b>	Applies (drilling) to only the group of members in which the selection is made. By default this setting is disabled. It is meaningful only when the report contains two or more dimensions of data down a report as rows or across a report as columns. This type of report is considered asymmetric, which is characterized by groups of nested members that differ by at least one member.
<b>Remove Unselected Groups</b>	Removes all dimension groups that are not in the selected group.

## Launching Smart View from CubeQuery

A CubeQuery section can be exported to Oracle® Hyperion® for Office. is a centralized interface which enables simultaneous use of multiple Oracle Hyperion products, and improves integration with Microsoft Office. You can export a CubeQuery section to Microsoft Excel as query-ready HTML. When you export content as query-ready HTML, the current page of the current CubeQuery section is converted to HTML and Hyperion-specific formatting is removed. This enables you to re-query the data source independent of the Web application. For more information about exporting a CubeQuery with , see Oracle® Hyperion For Office, Fusion Edition, Release 11.1.1.

**Note:** You cannot export content as query-ready HTML to a Firefox browser.

► To launch Smart View from a CubeQuery section, select **Actions**, then **Launch Smart View**.

For more information about using CubeQuery in Smart View, see *Oracle® Hyperion Smart View For Office, Fusion Edition, Release 11.1.1*.

For more information about using CubeQuery in Smart View, see *Oracle® Hyperion Oracle Hyperion Smart View for Office, Fusion Edition For Office, Fusion Edition, Release 11.1.1*.

## Dashboards

The Dashboard section is a streamlined, push button approach to querying a database. Dashboards are ideal for users who do not have the time to build a query or design a report section. Up to the minute thumbnail views of data allow you to explore what is behind trends and indicators.

On opening the file, you have a customized dashboard, which may show Gauges, Live Charts embedded reports and navigational buttons and boxes that allow you to retrieve data, and populate controls.

Each button selection, item selection, or navigation sequence can invoke a script created by a Designer. Behind the scene, Interactive Reporting refreshes the Dashboard script commands that allow you to retrieve data, populate controls, hide objects, navigate to different sections, and specify report parameters.

## Embedded Section Objects

Results, Pivot, Chart, Table, OLAP, and CubeQuery sections can be embedded in any Interactive Reporting documents and viewed in EPM Workspace. Data is updated in EPM Workspace as it is updated in the original sections.

The limitations to Interactive Reporting document files embedded in a dashboard through an embedded browser or hyperlink control include:

- Online help is available through a toolbar or a dialog box.
- Number formatting options are not available.
- The Reference sub dialog box of the Computed Item dialog box is not available.

Embedded sections are added to the EPM Workspace in three modes:

- **View-only**—Can view static reports (The reports are displayed as thumbnails in the dashboard section—as currently defined in the native-report section. Users cannot interact with the reports.
- **Hyperlink**—Can navigate to original sections by clicking thumbnails.
- **Active-Embedded section objects in active mode**—Enables users to interact with reports. Selecting a live report activates it in-place for object specific functions such as drill down, pivoting, and other analysis.



## View-Only Embedded Section Objects

Embedded section objects in view-only mode are designed to be static objects— that is, users cannot interact with the report beyond viewing its content. Only actions performed on the parent section of the embedded section object update it. Scroll bar behavior for view only objects depend on the scroll bar settings defined for the object:

- Vertical and horizontal scroll bars always appear, and adjacent to but outside the defined object's container boundary and do not obstruct the object
- Vertical and horizontal scroll bars only appear when the object has focus (when the user selects the object). The scroll bars continue to show until the user selects another object, or tool bar.

## Active Embedded Section Objects

Active embedded section objects allow you to select the embedded section object and perform selected tasks as you might with other object in the non-dashboard sections. This interaction is provided on the shortcut menus or the object, or by selecting embedded section object and clicking Shift+F10. Actions performed on the active embedded section object update the parent section, as do actions made by the parent section to the embedded section object.

Available options depend on the object and which tasks have been associated with it by the designer: The following list shows the default shortcut menu options for each embedded section object.

Embedded Results Section Object shortcut menu options:

- Sort Ascending
- Sort Descending
- Auto-size Column

Embedded Pivot Section Object shortcut menu options:

- Drill Anywhere (with sub-menu listing available columns from parent Results/Table)
- Drill Up
- Focus on Items
- Hide Items
- Show Hidden Items
- Show All Items
- Auto-Size Column Width
- Swing
  - Horizontal
  - Vertical
  - Up
  - Down

- Left
- Right
- Before (submenu is also launched listing all top and side labels, listing them in a top-down, left-right order)
- After (submenu is also launched listing all top and side labels, listing them in a top-down, left-right order)
- Sort Ascending
- Sort Descending
- Refresh Pivot

Embedded Chart Section Object shortcut menu options:

- Drill Anywhere
- Drill Up
- Focus on Items
- Hide Items
- Show Hidden Items
- Show All Items
- (Un)Group
- Show Negative Values
- Show Label
- Add Trend Line
- Sort
  - Ascending
  - Descending
- Zoom
  - Zoom In
  - Zoom out
  - Return to original
- Refresh Chart

Embedded OLAPQuery/CubeQuery Section objects (the list of available speed menu options is context sensitive and depends on what component of the report is selected, for example label, measure, handle. It also depends on the state when the component selection is made. For example if items have been hidden, if additional levels are available for drill down, and so on).

- Keep Only
- Remove Only
- Drill

- Down
- Up
- Next
- Bottom
- All Descendants
- Siblings
- Same Level
- Same Generation
- Drill
  - Down
  - Up
  - Next
  - Bottom
  - All Descendants
  - Siblings
  - Same Level
  - Same Generation
- Suppress
  - Missing rows
  - Missing Columns
  - Zero rows
  - Zero columns
- Drill-Through
- Column Width
- Row height

Scroll bar behavior for view only objects depend on the scroll bar settings defined for the object:

- vertical and horizontal scroll bars always appear, and adjacent to but outside the defined object's container boundary and do not obstruct the object
- vertical and horizontal scroll bars only appear when the object has focus (when the user selects the object). The scroll bars continue to show until the user selects another object, or the tool bar.

## Report Section

The Report section allows you to view high-quality and professionally designed reports. These reports can span anywhere from a complex critical operational report to a results sets, a chart,

and a pivot table. Use the reports in this section to help you evaluate your business, expand communications, and assist in the decision-making process.

The reports found here are dynamic and provide you with an almost unfiltered framework from which to view and analyze data. You can resort and apply data functions, which allow you to display different types of values.

## Paging Through the Report

By default Interactive Reporting shows a fixed number of rows in a table when a user views a page in a browser. Often data extends beyond the vertical and horizontal rows shown on the page. To view your paging options, see the table below.

**Table 69** Report Paging Options

Paging Option	Description
<b>Current Page</b>	The tooltip shows the current page in the report.
<b>Page Left</b>	Moves one page in the left direction. To move to the first page in the left direction, select [Shift] + Click + left arrow.
<b>Page Up</b>	Moves one page up. To move to the top page, select [Shift] + Click + Up.
<b>Page Down</b>	Moves one view in the down direction. To move to the first page in the down direction, select [Shift] + Click + Down arrow.
<b>Page Right</b>	Moves one page in the right direction. To move to the first page in the right direction, select [Shift] + Click + right arrow.

# 6

## Using Production Reporting Documents

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## Viewing a Production Reporting Document

➤ To view a Production Reporting document in EPM Workspace:

- 1 Run a Production Reporting job in EPM Workspace.
- 2 Double-click the job output and view the available output formats.

Depending on the output formats selected when you ran the job, see “[Output Options](#)” on [page 276](#), you can select from some or all of the following output formats:

- Comma Separated Value file (CSV)
- HP Printer file (PCL)
- HTML file (HTML)
- Interactive Reporting Data file (BQD)
- Line Printer file (LP)
- Listing file (LIS)
- Microsoft Excel file (XLS)
- Microsoft Word File (DOC)
- Portable Document Format file (PDF)
- PostScript file (PS)
- PowerPoint file (PPT)
- SQR Production Reporting Document (SPF)
- Production Reporting Log file (LOG)
- Production Reporting Output file (XML)

- 3 Select the desired output format and click **Open**.

## Viewing Functionality for HTML Reports

When you view a Production Reporting document in an HTML format, you can navigate from page to page, move to a specific page, or browse with a table of contents.






### Using the Navigation Bar

The navigation bar provides options for navigating to different pages within the HTML report and for viewing the report in multiple output formats.

### Exporting Report Information from the Navigation Bar

The navigation bar displays icons for viewing an HTML report in different file formats. The icons that appear on the navigation bar are defined in the Navigation Bar tab in the SQR Production Reporting Studio preferences. (See the *Hyperion SQR Production Reporting Studio User's Guide* for more information.) [Table 70](#) describes the export options on the navigation bar.

**Table 70** Export Options on the Navigation Bar


Icon	Message	Description
	Display Table of Contents	Displays the Table of Contents frame.
	Display PDF file	Displays the report in a Portable Document Format (PDF) and launches it in a new browser window.
	Download the Data in CSV (comma-delimited) format	Downloads the report data in a Comma Separated Value format (CSV) and displays it in a new browser window.
	Download the Data in BQD format	Downloads the report data in a Brio Query Data format (BQD) format and displays it in a new browser window.
	Display XML file	Displays the report in an XML format and launches it in a new browser window.





**Note:** The HTML navigation bar only displays a subset of all the available output formats. See [“Viewing a Production Reporting Document” on page 229](#).

### Using the Navigation Bar to Move Among Pages

You can navigate among the pages of a multi-page HTML report by using the paging options on the navigation bar. [Table 71](#) describes the navigation options on the navigation bar.

**Table 71** Navigation Options on the Navigation Bar

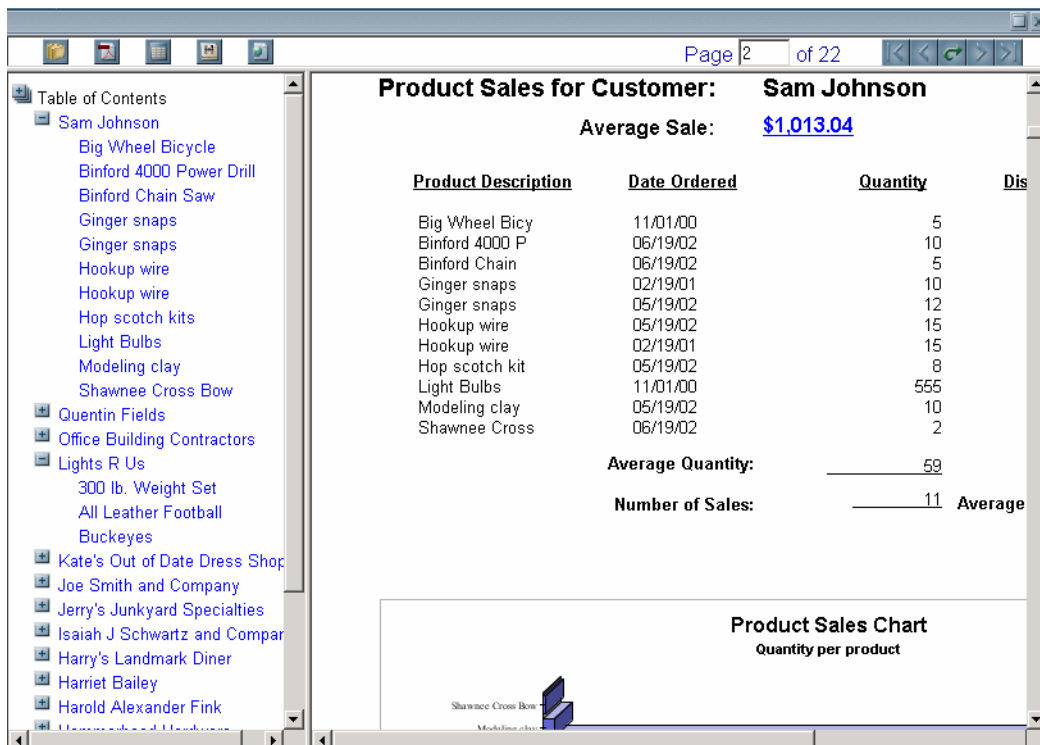
Icon	Message	Description
	Go to First Page	Displays the first page of the report in the current browser window.

Icon	Message	Description
	Go to Previous Page	Displays the previous page of the report in the browser window.
	Go to Page	Type the page number you want to go to.
	Go to Next Page	Displays the next page of the report in the browser window.
	Go to Last Page	Displays the last page of the report in the browser window.

## Navigating with the Table of Contents

The table of contents offers standard functionality for navigating through a document. Figure 2 shows an HTML report with the table of contents displayed.

Figure 2 Table of Contents Displayed for an HTML Report







# 7

## Scheduling Jobs

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## Overview

In EPM Workspace, you use the Schedule module to perform the following tasks:

- Run and schedule job types:
  - **Interactive Reporting job**—An Interactive Reporting document imported in EPM Workspace as a job and its associated files.
  - **Production Reporting job**—A Production Reporting report or program and its associated files. A Production Reporting job can be secure or nonsecure.
  - **Generic job**—A report or program from another software provider (for example, an Oracle report or a Crystal report), and any associated files.
- Run and schedule batches, which are collections of reports.

## Scheduling and Running Jobs

You can manually run jobs from Explore. Select the jobs you want to run, enter the job parameters, then view the job output. You can also run jobs automatically by scheduling your jobs to run using events and job parameters.

The schedule module contains the following panels for scheduling jobs:

- [“Managing Job Queue” on page 243](#) Job queueing occurs when no Job Service is available to process a job. Administrators can control Job Service availability using the Job Limit and Hold properties. For more information on these properties, see *Oracle Enterprise Performance Management Workspace Administrator’s Guide*.
- [“Viewing Job Notifications” on page 244](#)—Use this to see the status of jobs and notifications for jobs that are finished.
- Show Parameters—Displays a list of information about job parameters. You can modify or delete parameters from the Show Parameters page. See [“Modifying Job Parameters” on page 248](#).

- Jobs Running – Use this to list jobs which are currently running. You can cancel a job by selecting a job, right-click and select **Cancel**.
- [“Managing Events” on page 241](#)—Use this to create and manage events.
- [“Using the Consolidated Job Status List” on page 244](#)—Use this to view a list of jobs with the option to filter the list and modify the jobs, schedules or events. You can also use the Run Now option on a job from the Consolidated Job List.

If your administrator enabled the pass-through feature, you can configure foreground jobs to run without additional requests for data source login credentials. You can run jobs in the foreground or in the background depending upon how the job was configured by the importer.

**Note:** You can also run any job in the background or foreground using Run Job option from File menu.

Scheduling and Running Jobs includes the following topics:

- [“About Job Execution” on page 234](#)
- [“Events” on page 235](#)
- [“Event Status and Schedule Status” on page 236](#)
- [“Job Parameters” on page 236](#)
- [“Running Jobs” on page 237](#)
- [“Scheduling Jobs” on page 238](#)
- [“Using Job Output” on page 240](#)
- [“Managing Events” on page 241](#)
- [“Managing Job Queue” on page 243](#)
- [“Viewing Job Notifications” on page 244](#)
- [“Using the Consolidated Job Status List” on page 244](#)
- [“Retrieving Jobs” on page 249](#)

## About Job Execution

When a job executes in the foreground, you must wait until the job completes before continuing with other tasks. When a foreground job finishes executing, EPM Workspace displays:

- For Interactive Reporting jobs, a link to the output in the folder where the job resides
- For Production Reporting jobs, the HTML frame file
- For generic jobs:
  - The primary output file, if there is only one
  - A list of primary output files, if there are multiple files
  - A list of all output files, if there is no primary one

When a job is executing in the background, you can perform other tasks in the foreground. When the background job finishes executing, the output files are written to the repository, and a notification message is displayed in the View Job Status panel of the Schedule module.

The Output link is displayed next to the job title. Click the Output link to view the job output.

- [“Job Priority” on page 235](#)
- [“Scheduling Jobs” on page 235](#)

## Job Priority

When jobs are scheduled to process at the same time, jobs with High priority run first. You can set the priority to High or Normal when you schedule the job.

## Scheduling Jobs

Scheduling a job enables you to automatically run jobs at a date or time and/or on a recurring basis. To schedule a job, you must associate a time event and a job parameter list with the job. All types of jobs can be scheduled through EPM Workspace.

- Events define the timetable for running a job
- Job Parameters define the run time values necessary to execute a job

**Note:** For Production Reporting jobs, compile time parameters may also be specified with job parameters.

- Schedules specify the job you want to execute, as well as the event schedule and job parameter list for running the job

## Events

Events define when the job runs and whether the job runs only once or many times. You can determine whether the job runs every Wednesday, or every fourth Friday, or after an event occurred.

Because events are not associated with a particular job, you can use them to schedule multiple jobs. You can create personal recurring time events that only you can use. You may have access to public recurring time events and externally triggered events your administrator created.

You can create events as you schedule a job or from the Schedule module using the Manage Events panel. You can also view, modify, access, or delete time events.

The types of events that can be used for scheduling jobs are:

- Public recurring time events – Reusable time events created by an administrator and accessible to you with the required access privileges.
- Personal recurring time events – Reusable time events created by you and accessible only to you.

- Externally triggered events – Date based events created by an administrator and accessible to you with the required access privileges. Jobs are scheduled to run when the event is triggered.
- Custom time events – Time events created by you for one time use within a job schedule. Custom events cannot be used by other job schedules.

## Event Status and Schedule Status

Events and Schedule each maintain their own status, which is displayed by a traffic light indicator. The following table shows how the status enables a job to run. You can set the status when you modify the event or schedule.

**Table 72** Event Status and Schedule Status

Event Status	Schedule Status	Description
active	active	The scheduled job runs
active	inactive	The scheduled job will not run
inactive	active	The scheduled job will not run
inactive	inactive	The scheduled job will not run

## Job Parameters

Job parameters are run-time values that are necessary to run a job. The run-time values are the job variables or limits you are prompted for by the job. For some Interactive Reporting jobs, job parameters also include processing and job output options. You can save job parameters to:

- Run or schedule jobs without being prompted for the run-time values
- Share Public job parameters with other users
- Run jobs using different parameters on a schedule

EPM Workspace supports the following types of job parameters:

- Public job parameters – Reusable named job parameters created by your administrator and accessible to you with the required access privileges.
- Personal job parameters – Reusable named job parameters created by you and accessible only by you.
- Custom job parameters – Unnamed job parameters created by you and associated with a schedule. Default job parameters are not listed or named and cannot be used with other schedules. They are deleted when the schedule is deleted.

**Note:** Job parameters can only be created when creating or modifying a job schedule or when running a job. See [“Running Jobs” on page 237](#) or [“Scheduling Jobs” on page 235](#) to see how to get to the job parameters section.

## Job Parameter Tasks

You can modify and delete parameters from the Show Parameters page. You can also modify job cycles.

- To modify a job parameter, select a job name, right-click and select **Modify**. See [“Setting Interactive Reporting General Properties and Options” on page 254](#) to complete the Properties dialog.
- To delete a job parameter, select a job name, right-click and select **Delete**.

## Running Jobs

This section provides general instructions for running a job and setting your default job parameters.

- To run jobs:

**1 From **Explore**, navigate to the job you want to run, then do one of the following:**

- From the menu bar, select **File**, and then **Run Job**.
- Double click the job.
- Right-click the job, from the shortcut menu, select **Run Job**.
- Right-click the job, from the shortcut menu, select **Run Job in** , then **Foreground**.

When you run jobs in the foreground, a progress bar displays status and you cannot perform other tasks until it is complete.

- Right-click the job, from the shortcut menu, select **Run Job in** , then **Background**.

When you run jobs in the background, you can continue working in EPM Workspace.

**2 If database authentication is required, enter the user name and password for each connection in the Database Connectivity section.**

The Database Connectivity section is displayed only if database authentication is required.

**3 For Production Reporting and Generic jobs, browse to specify a folder destination for the job output.**

The default folder is the folder where the job is located.

**4 In the Job Parameters section, define parameters using an existing job parameters list or create one.**

If the job has no run-time variables, the job parameters section is not displayed.

To set personal default job parameters, see [“Setting Job Parameters” on page 238](#).

**5 If you are using default parameters, click **Run Job**, if not continue with the following steps.**

**6 Set values, limits, or define or modify cycles depending upon the type of job you are running.**

See [“Setting Job Parameters” on page 258](#) and [“Setting Production Reporting and Generic Job Parameters” on page 280](#).

**7 Click **Run Job**.**

Job parameters selected when jobs are imported are called Publisher defaults. You can override these Publisher defaults at run time and set your own job parameters. Your jobs run with your Publisher defaults until you change them.

## Setting Job Parameters

► To set your default job parameters:

- 1 From **Explore**, navigate to the job you want to run, right-click, then select **Run Job**.
- 2 Select an existing job parameter list or **New Values**.
- 3 Set values, set limits, or define or modify cycles depending upon the type of job you are running.  
See “[Setting Production Reporting and Generic Job Parameters](#)” on page 280.
- 4 Do one or more of the following steps:
  - Check **Save as my default**.
  - Check **Save**, then select **Public** or **Private**.
- 5 Click **Run Job**.

Your job parameters are not saved until you run the job.

## Scheduling Jobs

This section provides general instructions for scheduling a job.

**Note:** When scheduling the Day of the Week option, it is calculated based on the server time.

► To schedule a job:

- 1 Do one of the following:
  - From **Explore**, navigate to a job.
  - From **Consolidated Job Status** page, select a job.
- 2 Right-click the job and select **Add a Schedule**.
- 3 Fill in the properties.
  - **Name**—(Required) Contain letters, numbers, the space character, and the underscore character “\_”.
  - **Description**—A meaningful description of the schedule. For example, *Quarter end for all regions*. The length is limited to 250 characters.
  - **Priority**—When jobs are scheduled to process at the same time, jobs with High priority are run first. Select High or Normal priority.
  - **Active**—Displayed when you modify a schedule only. A traffic light that indicates if the job is scheduled to run.

- A green traffic light indicates that the job is scheduled to run.
- A red traffic light indicates that the job is not scheduled to run.
- **Run this job**—Infinitely or a specified number of times. The job automatically becomes inactive after it runs the indicated number of times.
- **Job outputs inherit time to live from the job properties**—Enable to automatically delete job output.
- **Auto-delete job outputs after:** Indicate when to delete by entering a number and selecting a time interval (minutes, hours, days, weeks, years) after the job is run. Default is minutes.
- **User name and Password**—You are prompted for database authentication if it is required.

**4 Click Next.**

**5 For Job Parameters, select one of the following options:**

- To create job parameters from scratch, select **Define job parameters starting with** and select **New Values**.
- To create job parameters from existing job parameters, select **Define job parameters starting with** and select a job parameter. This enables you to quickly create a job which is similar to an existing job. Make changes to the parameters and save the completed job parameters using a different name.
- To use or view job parameters, select **Schedule this job with existing job parameters** and select the parameters you want to use from the drop-down list. Click **View** if you want to see the parameters before you move on to the next screen.

If the job has no parameters (no run time variables or limits), the job parameters section is not displayed.

If there are no job parameters, you must create them.

**6 Click Next.**

**7 For Set Values, select the cycles and actions for this Interactive Reporting job.**

**8 Select Save if you want to save the parameters for another job as your own, Personal, or available to others as Public.**

**9 From the Time Events page, indicate if you want to create an event or use an existing event using one of the following options:**

- To create a new event, select **A New Recurring Time Event** from the drop-down list. See [“Creating Personal Recurring Time Events” on page 241](#).
- **A New Custom Time Event.** You use a custom time event in order to create a one time schedule. The time cannot be changed by modifying event since you do not have access to the event properties.

**10 Click Next.**

**11 If desired, configure notification options.**

- If you want to view your notifications in the Schedule module using the Job Notifications panel, select **Display notification in Schedule Module**.
- If you want to E-mail the notification, enter E-mail addresses. Separate E-mail addresses by semicolons, colons, space characters, commas, or new lines.
- If you want to attach the latest job output to the E-mail, select **Attach PDF outputs to email messages**.

For Production Reporting jobs, see additional notification options in [“Output Options for Scheduling Jobs” on page 280](#).

**12 Complete Permissions step, see [“Setting Permissions” on page 66](#).**

**13 Click **Finish** to schedule the job.**

## Using Job Output

When jobs run, the results are placed in job output items. This section describes modifying job output properties and viewing job output. Job output deletion is streamlined. When you delete jobs, you can also delete all associated outputs.

### Modifying Job Output Properties

Job output properties determine which users can view the job output. Job output is listed in the same folder as the job. Each run of the job produces job output. You can modify or view the job output properties depending on your access privileges on the job.

► To modify or view job output properties:

- 1 From **Explore**, navigate to the job output, and select it.**
- 2 Select **File**, and then **Properties**.**

**Note:** You can also right-click on an artifact and select **Edit Permissions**.

- 3 Change the properties or click **Permissions** to change the access control.**

When assigning access to additional users, groups, or roles, the adaptive state is limited to *View Only*. Also, the adaptive state cannot be modified for the existing roles, groups, and users. You can modify the adaptive state for future job output when modifying the access control for the job.

To modify access control, see [“Setting Permissions” on page 66](#).

- 4 Click **OK**.**

### Viewing Job Output

You can open job output and a table of contents is displayed to navigate through the job output.



- To view job output:
  - 1 From **Explore**, right-click the job output file, and then select **Open**.  
The table of contents is displayed for items in the job output.
  - 2 Click an item, then click **Open**.
  - 3 To return to the table of contents and view other items, select the TOC tab in the content tab area.

## Managing Events

From the Schedule module, use the Manage Events panel to:

- View events which you can access
- Make events accessible to other users using access control
- Modify, delete, or create events

➤ To manage events:

- 1 Select **Navigate**, then **Schedule**, and then **Manage Events**.
- 2 To filter the events displayed, select **Filter** from the toolbar. Complete the Filter dialog fields and select **Apply**.  
All the events you can access are listed with their properties.
- 3 To modify or delete an event, select the event, right-click and select **Edit** or **Delete**.
- 4 To create a personal time event, see [“Creating Personal Recurring Time Events” on page 241](#) and to create a public recurring time event, see [“Creating Public Recurring Time Events” on page 242](#).

## Creating Personal Recurring Time Events

➤ To create a personal recurring time event:

- 1 Select **Navigate**, then **Schedule**, and then **Manage Events**.
- 2 To filter the events displayed, select **Filter** from the toolbar. Complete the Filter dialog fields and select **Apply**.  
All the events you can access are listed with their properties.
- 3 Right-click an event and select **Add**, then **Personal RecurringEvent**.

**Note:** You must be an Administrator to add a Public Recurring Event or Externally Triggered Event.

- 4 The Create Personal Recurring Time Event dialog wizard is displayed. Enter the time event name and description.
- 5 Click **Active** to make the Event available for scheduling.

**Note:** If a schedule is associated with an inactive event, the job will not run. You can check the event's active status by using the Manage Events panel in the Scheduler.

- 6 Select the calendar you want to use for this time event.

Company calendars are created by your administrator.

- 7 From the Days to Run list, select the option you want to use and click **Go** (*By Day* is the default).

By Day, By Week, By Period, By Quarter, and By Year let you specify a recurring time pattern. Advanced Days of Week and Advanced Days of Period give you the option to select days with no pattern.

- 8 From the Time to Run list, select the option you want to use and click **Next** (*Once per hour* is the default.)

The options include Once Per Day, More Than Once Per Day, or After External Event.

- 9 Update the **Starting At** and **Ending At** time to specify a range for the event.

- 10 Enter a **Start Date** and select the option to enter an **End Date** or to accept the default, **No End Date**.

- 11 Click **Finish**.

## Creating Public Recurring Time Events

➤ To create a public recurring time event:

- 1 Repeat [step 1](#) through [step 10](#) above. The only exception is to select Public Recurring Event in place of Personal Recurring Event.
- 2 Select **Next**.
- 3 Complete the permissions for this event and select **Finish**. For more information on setting permissions, see [“Setting Permissions” on page 66](#).

## Creating Externally Triggered Events

➤ To create an externally triggered event:

- 1 Repeat [step 1](#) through [step 10](#) above. The only exception is to select Externally Triggered Event in place of Personal Recurring Event.
- 2 Select **Next**.
- 3 Complete the permissions for this event and select **Finish**. For more information on setting permissions, see [“Setting Permissions” on page 66](#).

## Viewing Events

You can view all your events from the Manage Events panel in the Schedule module.

➤ To view events:

- 1 Select **Navigate**, then **Schedule**, and then **Manage Events**.

A recurring and externally triggered event list is displayed.

- 2 To filter the events list, select **Filter** from the toolbar area. Complete the Filter dialog and select **Apply**.

## Modifying Events

You can modify events from the Manage Events panel in the Schedule module.

► To modify events:

- 1 Select **Navigate**, then **Schedule**, and then **Manage Events**.

A recurring and externally triggered event list is displayed.

- 2 To filter the events list, select **Filter** from the toolbar area. Complete the Filter dialog and select **Apply**.
- 3 Select an event, right-click and select **Modify**.
- 4 Change properties.
- 5 Click **OK**.

The modified event is displayed in the events list.

## Deleting Events

You can delete events unused by schedules or other events. For example, if an external event is used to trigger a recurring event, the recurring event needs to be deleted or disassociated from the external event before the external event can be deleted.

► To delete events from the Manage Events panel in the Schedule module.

- 1 Select **Navigate**, then **Schedule**, and then **Manage Events**.

An event list is displayed.

- 2 To filter the events list, select **Filter** from the toolbar area. Complete the Filter dialog and select **Apply**.
- 3 Select an event, right-click, select **Delete** and confirm deletion by clicking **Yes**.

If schedules are associated with the time event you are deleting, modify those schedules to use another time event.

Before you delete a time event associated with an external event, disassociate the time event from the external event or delete the external event.

## Managing Job Queue

Job Queueing enables users to limit the number of jobs processed in parallel and manage the Job Queue.

► To manage job queue:

- 1 Select **Navigate**, then **Schedule**, and then **Job Queue**.

- 2 On the **Job Queue** page, verify that jobs with **High** priority are at the top of the queue.
- 3 Perform the following tasks to manage and validate changes are reflected in the queue:

From the right-click menu:

- Place a job to the top of the queue—This job should be first removed from queue.
- Place job in the bottom of the queue—The job should be removed from the queue last.
- Select **Hold item for the Job. Repeat for several job types**—Job should not be processed, but not removed from the queue. Check mark next to the job is displayed when Held.
- Delete job from the queue. Repeat for all job types—Job should be removed from the queue.

**Note:** When some scheduled jobs are in the queue, run several different jobs in Background and Foreground. A dialog is displayed asking whether user wants to queue the Job. Job is added to the Queue if user clicks Yes.

## Viewing Job Notifications

From the Schedule module, use the Job Notifications panel to:

- Display completion status of jobs running in the background.
- Display notifications for jobs that have completed.

► To view job notifications:

- 1 Select **Navigate**, then **Schedule**, and then **Job Notifications**.
- 2 To delete job completion notifications:
  - To delete one notification, select the job, right-click, then select **Delete**.
  - To delete all notifications, select the jobs, right-click, then select **Delete**.

## Using the Consolidated Job Status List

From the Schedule module, use the Consolidated Job Status panel to:

- Filter the job list shown in the Consolidated Job Status List, see [“Filtering Consolidated Job Status List” on page 245](#).
- Run Now. Run the scheduled job again with parameters used previously when the job failed. See [“Run a Scheduled Job Now” on page 246](#).
- Modify job properties. See [“Modifying Job Parameters” on page 248](#)
- Modify schedule properties. See [“Modifying Schedules” on page 247](#)
- Modify event properties. See [“Modifying Events” on page 243](#)
- Add schedules. See [“Adding Schedules” on page 248](#)
- Delete schedules. See [“Deleting Schedules” on page 248](#)

➤ To update a scheduled job list:

**1 Select the *Navigate*, then *Schedule*, and then *Consolidated Job Status*.**

- **Job Name**—Job Name
- **Job Owner**—DJob owner’s login id. A non-administrator user must have view access to display jobs.
- **Schedule Name**—.Job schedule name
- **Schedule Owner**—.Scheduler owner’s login id. Only administrators can see schedules owned by others.
- **Event Name**—DEvent name
- **Last Run Date**—Job last ran. If the schedule or event is inactive, this column displays Schedule Inactive or Event Inactive.
- **Last Status**—Status from the last time the job ran
- **Next Run Date**—JNext date the job will run

To filter the Consolidated Job Status list, select **Filter** from the toolbar. See “[Filtering Consolidated Job Status List](#)” on page 245.

**2 Optional: To delete schedules, select the schedule, then right-click and select *Delete*.**

To select all schedules, click the check box at the top of the column.

## Filtering Consolidated Job Status List

You can filter your job list using the filter criteria listed in [Table 73](#). A particular filter is not set when it is blank. The Consolidated Job Status List is sorted by the filter you selected in the Default Sort Order field from the filter page.

➤ To set filters and sort criteria for the Consolidated Job Status List:

**1 Select *Navigate*, then *Schedule*, and then *Consolidated Job Status*.**

**2 If default filter settings do not exist, select filter settings by selecting *Filter* from the toolbar. Filter dialog is displayed..**

See [Table 73](#) for more details on the filter criteria.

**3 Determine the sort order by selecting the *Default Sort Order* from the drop-down list and the options indicating ascending or descending order.**

The default sort filter is the job name. For descriptions of sorting filters, see [Table 73](#).

**4 Click a button:**

- **Apply**—Saves your values for one session.
- **Save As Default**—Saves your values as your default values.
- **Restore Defaults**—Retrieves the values you last saved as your default values.
- **Cancel**—Saves no values.

**Table 73** Job Filters

Job Filter	Description
<b>Job Name</b>	Select <b>Equals</b> , <b>Contains</b> , <b>Ends with</b> , or <b>Begins with</b> and enter text.
<b>Job Owner</b>	Select <b>Equals</b> , <b>Contains</b> , <b>Ends with</b> , or <b>Begins with</b> and enter text.
<b>Schedule Name</b>	Select <b>Equals</b> , <b>Contains</b> , <b>Ends with</b> , or <b>Begins with</b> and enter text.
<b>Schedule Owner</b>	Select <b>Equals</b> , <b>Contains</b> , <b>Ends with</b> , or <b>Begins with</b> and enter text.
<b>Event Name</b>	Select <b>Equals</b> , <b>Contains</b> , <b>Ends with</b> , or <b>Begins with</b> and enter text.
<b>Last Status</b>	Select <b>All</b> , <b>Is</b> , or <b>Is not</b> from the first drop-down list and <b>Successful</b> or <b>Cancelled</b> from the second drop-down.
<b>Last Run Date</b>	Select the time period from the drop-down list.
<b>Next Run Date</b>	Select <b>After</b> , <b>Between</b> , or <b>Before</b> from the drop-down list and the year, month, and day for your selection.
<b>Default Sort Order</b>	Select a filter criteria from the drop-down list to sort the list. Select a radio button for ascending or descending sort order.
<b>Schedule State</b>	Select the desired filter(s) for the schedule state. Active is the default.

## Run a Scheduled Job Now

This functionality allows a user to run any job from Consolidated Job Status list. You can also select multiple jobs to run at once. For applicable user rights required, see [Table 74](#).

**Table 74** User Privileges Required for Run Now

Artifact	Job Type	User Rights
Generic Job	Simple	Administrator
Generic Job	Simple	Any user with lower than Modify and Run access
Generic Job	With Parameters	Schedule Manager with Modify and Run access
Interactive Reporting job	Simple	Schedule Manager with Modify and Run access
Interactive Reporting job	With parameters	Administrator
Interactive Reporting job	Simple	Any user with lower than Modify and Run access
Production Reporting job	Simple	Any user with lower than Modify and Run access
Production Reporting job	With parameters	Administrator
Production Reporting job	With DB connection	Schedule Manager with Modify and Run access
Production Reporting job	With DB connection	Administrator

► To run a scheduled job now:

- 1 Select **Navigate**, then **Schedule**, and then **Consolidated Job Status**.
- 2 Select a job which had been run successfully by the schedule with notifications enabled.
- 3 Right-click and select **Run Now**.
- 4 Do any of the following:
  - Go to Jobs Running page, verify that the job is running.
  - Go to Job Notifications page, check job's notification.
  - Open the output from Job Notifications page.
  - If you run a job when job service is busy, you can check the Job Queue module to see if the job has been added to the top of the queue.

## Managing Individual Job Schedules

► To manage schedules:

- 1 From **Explore**, right-click a job and select **Manage Job Schedules**.
- 2 Review **Schedules** information:
  - **Job Name**—Name of job
  - **Job Owner**—Owner of job
  - **Schedule Owner**—Creator of schedule
  - **Schedule Name**—The name of the schedule
  - **Description**—A schedule description
  - **Event Name**—Type of action
  - **Next Run Date**—Next scheduled run
- 3 Review **Job Parameters** information, select a job, right-click and select **Show Parameters**.
  - **Job Name**—Name of the job
  - **Job Type**—Type of Interactive Reporting or Production Reporting job
  - **Parameter Name**—Name of parameter created for this job
  - **Description**—Parameter description
  - **Ownership**—Parameter of parameter

## Modifying Schedules

When your schedule needs changes, you can modify it.

► To modify a schedule:

- 1 Select **Navigate**, then **Schedule**, and then **Consolidated Job Status**.

A list of all jobs that you can access is displayed.

- 2 Under **Job Name**, locate the job.
- 3 Select the job, right-click and select **Modify Schedule**.
- 4 Change properties.  
See [“Scheduling Jobs” on page 235](#).
- 5 To deactivate or activate the schedule on the General Properties page toggle **Active**.
- 6 To modify more properties click **Apply**, otherwise click **OK**.

## Deleting Schedules

➤ To delete a schedule:

- 1 Select **Navigate**, then **Schedule**, and then **Consolidated Job Status**.  
A list of all jobs in the system is displayed.
- 2 Under **Job Name**, locate the schedule, right-click and select **Delete**.

## Adding Schedules

➤ To add a schedule:

- 1 Do one of the following: .
  - Select **Navigate**, then **Schedule**, and then **Consolidated Job Status**

A list of all jobs in the system is displayed.

- From **Explore**, select a job.
- 2 Right-click and select **Add Schedule**.
  - 3 Follow the instructions in [“Scheduling Jobs” on page 235](#).

## Viewing Job Parameters

➤ To view job parameters, select **Navigate**, then **Schedule**, and then **Show Parameters**. A list of all jobs with schedules and parameters is displayed. See also, [“Modifying Job Parameters” on page 248](#) and [“Deleting Job Parameters” on page 249](#).

## Modifying Job Parameters

➤ To modify job parameters:

- 1 Select **Navigate**, then **Schedule**, and then **Show Parameters**.  
A list of all jobs with schedules and parameters is displayed.



- 2 Select a job, right-click and select **Modify**.
- 3 Change properties and click **OK**.

## Deleting Job Parameters

You can delete job parameters that are not being used by a schedule.

➤ To delete job parameters:

- 1 Select **Navigate**, then **Schedule**, and then **Show Parameters**.

A list of all jobs with schedules and parameters is listed.

- 2 Click the scheduled job.

- 3 Right-click and select **Delete**.

If no schedules are associated with it, the job parameter is deleted.

If schedules are associated with it, you must associate the schedule with other job parameters by modifying the schedule.

## Retrieving Jobs

You can retrieve a Production Reporting job and its associated files.

➤ To retrieve a Production Reporting job:

From **Explore**, right-click the job, and select **Retrieve**.





# Using Interactive Reporting Jobs

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## Interactive Reporting Jobs

Interactive Reporting jobs are created with Interactive Reporting Studio and defined by properties and parameters. You can import, run, and schedule Interactive Reporting jobs.

## Import Requirements

To import an Interactive Reporting, you need this information:

- Interactive Reporting database connection file names, to connect to the database for processing queries
- Custom calendar name, if not using the default calendar, to resolve dynamic date parameters
- Filter names and values, if running a job with parameters that must be specified. (See “Parameters” on page 252.)
- E-mail addresses if sending results directly to users
- Output directory name if sending results to a directory
- Database create-and-insert privileges if processing results to a database table
- Database grant access if giving additional users access to a database table.

## Pass-Through Feature

Pass-through enables users to log on once and access data sources without additional authentication. Pass-through is enabled per authentication system and per Interactive Reporting database connection file. Pass-through can be used for foreground jobs and all Interactive Reporting documents.

After your administrator enables pass-through for authentication systems, you can enable or disable it for Interactive Reporting database connection files.

## Parameters

Interactive Reporting job parameters include runtime values, processing options, and job-output options. Processing and job-output options are defined using cycles and actions. A cycle contains job actions and job filters. *Actions* define how documents are processed and results are distributed. *Filters* are the values for the run-time variables. Job cycles are named and associated with jobs.

When importing a job, you specify whether users can create cycles (multiple-cycle jobs) or use only the default cycle (single-cycle jobs).

- **Single-cycle jobs**—Limited to one cycle. The default processing and printing actions are used. All single-cycle job results are processed to file as job output. The job output is listed with the job in the Browse item list.
- **Multiple-cycle jobs**—Processed according to how many cycles are defined. Cycles can be created using processing, printing, and exporting actions. You can design jobs to process as many times as necessary at each scheduled run, each process having different parameters (or filters) and job output options.

### Example

Your document queries sales transactions within a region. The region is specified through a variable filter on the query to make the data available to each sales manager on Monday mornings.

When scheduling the job, you can add a job cycle for each region. You can resolve the variable and filter for each run to retrieve numbers for only one region, and e-mail the numbers from each run directly to the regional manager. All job-run cycles are part of one job, which is easier to track and update.

## Supporting Exceptions in Interactive Reporting Programs

This section is for Interactive Reporting programmers who support exception notifications to users. (Users can receive e-mail notifications or see a graphic indicator on the Exceptions Dashboard on Personal Pages.)

## Setting Interactive Reporting Job Properties

These topics describe the properties for Interactive Reporting importing and modifying Interactive Reporting jobs:

- [“Setting Advanced Options” on page 253](#)
- [“Setting Data Source and Query Properties” on page 253](#)
- [“Setting Interactive Reporting General Properties and Options” on page 254](#)

- “Setting Job Defaults” on page 255



For details on general properties and advanced options, see “Working with Properties” on page 71.

► To access properties:

- 1 From **Explore**, select an item.
- 2 Select **File**, and then **Properties**.

## Setting Advanced Options

In addition to the advanced option detailed in “Working with Properties” on page 71, two options specific to Interactive Reporting jobs are available.

Option	Description
<b>MIME Type</b>	Displays the file type.
<b>Run this job in the background</b>	Enable running of your job in the background.
<b>Hidden File</b>	Set file to hidden.
<b>Auto-delete file on this date</b>	Select a time period and enter a number to specify when output is automatically deleted.
<b>Auto-delete job outputs after</b>	Deleted job output after a specified time. Enter a number, and select a time element: <ul style="list-style-type: none"> <li>● Minutes</li> <li>● Hours</li> <li>● Days</li> <li>● Weeks</li> </ul>
<b>If exceptions are generated, allow users to add to their Exceptions Dashboard</b>	Enables users to report exceptions to Exceptions Dashboards.
<b>Automatically generate keywords</b>	Automatically generates keywords in <Assigned Keywords>. <ul style="list-style-type: none"> <li>● To add, enter keywords and click .</li> <li>● To remove, select from &lt;Assigned Keyword&gt; and click .</li> </ul>

## Setting Data Source and Query Properties

Interactive Reporting database connection files are used by Interactive Reporting jobs and files to connect to databases. Queries in a document can use different databases. In addition, an Interactive Reporting database connection file can be specified for each query of an file or job.

Before you can import files and jobs, you need access to all Interactive Reporting database connections that your document uses. Otherwise, the required database connection files are not displayed in the connection list. Ask your administrator for access to the required Interactive Reporting database connections.

If you use pass-through, see [“Pass-Through Using Multiple, Interactive Reporting, Database-Connection Files”](#) on page 256.

**Note:** If no Interactive Reporting database connection file is specified for a query, users accessing the document cannot process the query unless it uses only local results.

➤ To access data source and query properties from Properties, select **2: Query** from the left pane.

Property	Description
<b>Apply Option to All Queries</b>	<p>Select a method for obtaining user names and password for queries:</p> <ul style="list-style-type: none"> <li>● Use Default User Name &amp; Password—Uses the defaults for database access.</li> <li>● Prompt for User Name &amp; Password—Prompts the user for a user name and password per data connection. The word prompt is displayed in the user name and password fields.</li> <li>● Specify Now—Prompts the importer for a user name and password for all queries. The user name is displayed in all user name fields. The password is not retractable.</li> </ul> <p>You can override individual username or password combinations by selecting a method for each query connection.</p>
<b>Connection</b>	<p>Select an Interactive Reporting database connection file to use the query. For queries using only local results, select &lt;No Connection&gt;.</p> <p>If you are using pass-through, see <a href="#">“Pass-Through Using Multiple, Interactive Reporting, Database-Connection Files”</a> on page 256.</p>
<b>User name</b>	Enter a user name, set one globally with the Connecting to Data Sources list; or set a one individually with the options list.
<b>Password</b>	Enter the password to use for this query; or set globally with the Connecting to Data Sources list; or set individually with the options list.
<b>Options</b>	Set the username and password using the selected method (default or prompted)
<b>Query Connections and Processing</b>	Validate all queries that you process at runtime.

## Setting Interactive Reporting General Properties and Options

The Interactive Reporting properties page for an Interactive Reporting job contains general properties and the Interactive Reporting options.

➤ To access general properties, from Properties, select **3:Interactive Reporting Job Properties** from the left pane.

**Table 75** General Properties

Property	Description
<b>Calendar</b>	Calendar selected for resolving dynamic date parameters.

Property	Description
<b>Users running this job can define their own cycles and actions</b>	<p>Allow users to define cycles and parameters for the job, thus creating a multiple-cycle job. The default is selected (multiple -cycle jobs).</p> <p>Only single-cycle jobs can be viewed in View Manager.</p> <p><b>Note:</b> If you select the option now, you can deselect it later. If you do not select it now, you can never select it.</p>

**Table 76** Interactive Reporting Options

Option	Description
<b>Enable ADR</b>	Enables the Automatic Distributed Refresh (ADR) feature. ADR is a sophisticated version control feature that transparently updates Interactive Reporting when the data model or standard query is changed in the document repository. ADR operates completely in the background without any user interaction.

## Setting Job Defaults

Job Defaults are detailed in [Table 77](#) gives you the option to include HTML as a default, job-output format and to set default, job-parameter values. See [“Setting Job Parameters” on page 258](#).

➤ To access Job Defaults, from Properties, select **4. Job Defaults** from the left pane.

**Table 77** Job Defaults

Default	Description
<b>Include static HTML as a default output format</b>	Select to make HTML and the default output format (the standard Interactive Reporting document) your default output format.
<b>Set Values</b>	Set default job-parameter values. See For field definitions to set values, see <a href="#">“Setting Job Parameters” on page 258</a> <a href="#">“Modifying Job Parameters” on page 258</a> .
<b>Modify Filter</b>	Set default filter options. .
<b>Set Locale</b> (Interactive Reporting)	<p>Set locale properties:</p> <ul style="list-style-type: none"> <li>● <b>Language</b>—Determines the sort order and the job log language.</li> <li>● <b>Country</b>—Determines the data format (for example, the date/time format).</li> </ul>

[“Selecting Database-Connection File Options” on page 256](#) Click **OK** to close Properties. You can schedule the job later from the Browse web module. See *Oracle Enterprise Performance Management Workspace User's Guide*.

To complete the Import dialog wizard for Interactive Reporting (.bqy) files, see [“Importing Files as Jobs” on page 64](#).

## Selecting Database-Connection File Options

Interactive Reporting jobs and files use database-connection files to connect to databases. An Interactive Reporting, database-connection file must be specified for each query of an Interactive Reporting file or job, except for queries that use only local results, so users can process the query.

### Pass-Through Using Multiple, Interactive Reporting, Database-Connection Files

If enabled by your administrator, pass-through enables you to access data sources without entering a username and password for each data source. For pass-through to work for Interactive Reporting jobs or files associated with multiple, Interactive Reporting database connections, these conditions are necessary:

- Interactive Reporting database connections is configured for pass-through.
- Credentials required to access each data source are identical.

**Note:** Oracle recommends selecting similarly configured Interactive Reporting, database-connection files when importing Interactive Reporting documents. To enable users doing imports to make this selection, Interactive Reporting database connection names should indicate whether the database connection is configured for pass-through.

When Interactive Reporting jobs and files with some but not all Interactive Reporting database connections configured for pass-through are processed:

- Interactive Reporting database connections configured for pass-through—Users are not prompted for logon credentials.
- Interactive Reporting database connections not configured for pass-through—The credential option selected when the job or file was imported (prompt user, specify now, or use the default) is used.

---

**Caution!** For pass-through processing of all queries, Interactive Reporting database connections must have identical database credentials.

---

### Setting Processing and Metadata Options

Three options types specific to Interactive Reporting, database-connection file are offered: processing and metadata.

Processing Open Catalog Extension (OCE) options store database connection information.



**Table 78 Processing Database-Connection Options**

Option	Description
<b>Data source access</b>	Select a method for the Interactive Reporting database-connection file to use a username and password when a job is run or a file is processed. <ul style="list-style-type: none"> <li>● Use the username/password specified below—You enter the database username and password.</li> <li>● Prompt for user name/password—You are prompted for the database username and password when the job is run or scheduled or the file is processed. This is the default when pass-through is disabled.</li> </ul>
<b>User name</b>	If Data source access is set to use this field, enter the database user name.
<b>Password</b>	If Data source access is set to use this field, enter in the database password.
<b>Allow pass-through where end user's authentication system is enabled for it</b>	Select to allow pass-through credentials for data source access.

Metadata options store a file that contains extra information about the Interactive Reporting database connection.

**Table 79 Metadata Options**

Option	Description
<b>This Interactive Reporting database connection (.oce) uses metadata defined in another connection</b>	Metadata is used and the metadata connection is not specified in the Interactive Reporting, database-connection file. All fields in this group are disabled if this field is not selected.
<b>Select metadata connection</b>	If metadata is used and the metadata connection is not specified in the Interactive Reporting, database connection file, select the Interactive Reporting database-connection file for the metadata.
<b>Metadata access</b>	Select one of the following: <ul style="list-style-type: none"> <li>● Use processing OCE's credential for metadata connection - Use that username and password associated with the Interactive Reporting database connection to access the metadata.</li> <li>● Use specified user name/password - Use the specified user name and password to access the metadata.</li> </ul>
<b>User name</b>	If Data source access is set to use this field, enter the database user name.
<b>Password</b>	If Data source access is set to use this field, enter in the database password.

**Table 80 Interactive Reporting Database Connection**

Option	Description
<b>Connection Software</b>	Connection software name used by this Interactive ReportingInteractive Reporting database connection file (.oce) to connect to the database server, for example, ODBC or EssbaseOracle Essbase.
<b>Database</b>	Type of the database or database connectivity to which this Interactive Reporting Connection file (.oce) is used to connect, for example ORA8, Essbase, ODBC, OLEDB and so on.
<b>Host</b>	Identifier or alias for the specific information needed to connect to the client, for example, host name or DSN.

To complete the Import dialog wizard for Interactive Reporting Database Connection (.oce) files, see [“Importing Files” on page 63](#).

## Setting Job Parameters

With single-cycle jobs, job parameters contain job variables filters. With multiple-cycle jobs, job parameters contain job variables or filters and job cycles, which contain processing options and job actions.

**Note:** You can create job parameters only when creating or modifying a job schedule or running a job.

## Setting Single-Cycle Job Parameters

Only single-cycle jobs with variables filters have job parameters.

► To set job parameters for a single-cycle, Interactive Reporting job:

**1 From Explore, right-click the Interactive Reporting job, and select Run Job.**

This job is stored in a folder to which you have Run Job access rights. The Job Parameters window displays the parameter values that are set.

**2 Select a job parameter definition.**

**3 Click Go to use the definition as is or click Edit to modify it.**

**4 If you clicked Edit, proceed to the following topic.**

## Modifying Job Parameters

The following procedure assumes that you clicked edit in the preceding procedure.

► To edit a job parameter definition:

**1 Under Job Parameters next to Define Job Parameters starting with and just to the right of Go, click Edit.**

**2 From Show Parameters, select a Job Name.**

Right-click and select **Modify**.

**3 From the Properties dialog, in Name, enter a name.**

**4 In Description, enter a description.**

**5 To change owner for this job, select Change Owner.**

**6 Select the new owner and click OK.** For additional information, see [“Changing Ownership of Artifacts” on page 72](#).

**7 Under Set Local, change the language:**

- In **Language**, select the language.
  - In **Country**, select a country.
- 8 Optional: Modify filters (available only if filters exist in the file).**
- 9 Take one action:**
- Select **Save as my default**
  - To save your job parameters, select **Save**, select parameter type, and enter a name.
- 10 Optional: Click Permissions in the left pane of the properties dialog to change access permissions. For more information, see [“Setting Permissions” on page 66](#).**

## Setting Multiple-Cycle Job Parameters

When creating job parameters for multiple-cycle jobs, you can save the cycles and the job parameters associated with the job that you are running or scheduling.

**Note:** You can create job parameters only when creating or modifying job schedules or running jobs.

➤ To set job parameters for multiple-cycle, Interactive Reporting job:

**1 From Explore, right-click the Interactive Reporting job, and select Run Job.**

This Interactive Reporting job is stored in a folder to which you have Run Job access rights. The **Job Parameters** window shows the parameter values that are set.

**2 Under Cycles, you can perform the following:**

- To add a cycle click **Go**.
- To modify cycle, click **Modify**, or to add new cycles, click **Go**.
  - Under Define Cycle, enter cycle information:
    - In Cycle Name, enter a name.
    - Select **Save Job Output with the job** or **Save job output in another folder** and enter a file path.
    - Click **Edit Cycle Permissions** for permissions access.
- To copy, click **Copy**.
- If filters exist, see [“Filter Options” on page 260](#).

**3 Select Process Options. See [“Process Options” on page 262](#).**

The connection file and database to which you are connected determine whether you can process the results to a database table.

**4 Select Action.**

For details on action options, see [Table 83](#).

**5 Click OK.**

## 6 Select **Save Job Parameters**, and enter a name.

# Job Parameter Options

This following topics provide details on Interactive Reporting, job-parameter options:

- **Filter options**—For single-cycle and multiple-cycle jobs
- **Processing options**—For multiple-cycle jobs only
- **Actions options**—For multiple-cycle jobs only

## Filter Options

In Interactive Reporting Studio, filters enable you to control how much data is processed and displayed during relational or OLAP database queries.

Query filters which are created initially in Interactive Reporting Studio, can be static or variable. Static filter values cannot be changed. You can change variable filter values at runtime from Set Values. The Set Values area displays information for relational and OLAP databases.

These topics detail the information displayed in the Set Values area during relational or OLAP database queries:

## Setting Filter Values for Relational Databases

The Set Values area displays the values for the filters.

► To access properties:

- 1 From **Explore**, select an item.
- 2 Right-click a job and select **Run Job**.

Properties is displayed.

Option	Description
<b>Query Name</b>	(Read-only) Query name
<b>Filter Name</b>	(Read-only) Name of the field that the filter is on from the Interactive Reporting job
<b>Operator</b>	(Read-only) The operator that the filter uses, such as =, <, or >
<b>Values</b>	(Read-only) The values that the filter uses (Variable system values such as \$USER, are acceptable. The values are from the database that the query is using.)
<b>Ignore</b>	Disables the filter when the query is processed
<b>Don't Prompt</b>	Disables prompting for runtime values. (A dynamic value, such as a system variable can be used for a value(s). This option essentially changes the variable filter to a static filter with fixed values.)
<b>Modify Filter</b>	Enables modification of a selected filter.

Option	Description
<b>Include nulls</b>	Enables inclusion of an “is null” condition in the SQL sent to the database when the query is processed.
<b>Operator</b>	(Read-only) The operator that the filter uses, such as =, <, and >
<b>Show values</b>	Retrieves from the database all available values associated with the item you can consider and select from the range of values when applying a filter.
<b>Custom values</b>	Lists available values saved with the filter or read from a file, you can select values from a pre-defined pool. You can create and save a custom list with each filter.

## Setting Filter and Slicer Values for OLAP Queries

You can set OLAP variable filters and slicers when importing or scheduling a job with an OLAP query. In the query, you can filter data on cube dimension levels to be displayed in the top or side labels of the query.

Slicers are filters on a dimension that are not in top or side labels but are visible in the data displayed. The filters list on Set Values displays the slicers last.

**Note:** When modifying filters, you cannot remove the last filter. You need at least one filter value per filter.

► To access filter and slicer values:

- 1 From **Explore**, select an **Interactive Reporting** job.
- 2 Select **Run Job**.
- 3 Click **Go** to add a schedule.
- 4 Enter the schedule properties and click **Next** until you can define the value and filter options.

**Table 81** Filter Options

Option	Description
<b>Set Values (MDD)</b>	<p><b>OLAP Query Name</b> – (Read-only) Query name</p> <p><b>Filter On</b> – (Read-only) The dimension level on which the filter is applied</p> <p><b>Operator Type</b> – (Read-only) The type that is set</p> <p><b>Data Operator</b> – (Read-only) The operator that the filter uses, such as =, &lt;, and &gt;. (Slicers have no data operators.)</p> <p><b>Value(s)</b> – (Read-only) The values that the filter uses (Variable system values such as \$USER are acceptable. The values are from the database that the query is using.)</p> <p><b>Ignore</b> – Disables the filter when the query is processed</p> <p><b>Don't Prompt</b> – Disables prompting for runtime values. (A dynamic value such as a system variable can be used for a value. This option essentially changes the variable filter to a static filter with fixed values.)</p>
<b>Modify Filter</b>	Lists OLAP Query Name/Filter On values. Toggles filter list to filters applied for selected OLAP Query section and filter.

Option	Description
<b>Operator Type</b>	<p>Availability determined by the database:</p> <ul style="list-style-type: none"> <li>● Select Members From Database</li> <li>● Select By Measure</li> <li>● Top N</li> <li>● Bottom N</li> <li>● Top Sum</li> <li>● Bottom Sum</li> <li>● Top N%</li> <li>● Bottom N%</li> <li>● Select Members</li> <li>● User Defined Attributes</li> <li>● Substitution Variables</li> </ul> <p>Available operator types are displayed in the filter list. Slicers have no operator types.</p>

## Process Options

Process options, are displayed in the section below the Modify Filters options. The connection file and database to which you connect determine whether you can process the results to a database table. You need Create and Insert privileges on the database to process to a database table.

► To set process options for a multiple-cycle, Interactive Reporting job:

- 1 From **Explore**, right-click the job and select **Run Job**.
- 2 Click **Go** to add another cycle to this job.
- 3 Click **Process Options (+)** to display all process options.

**Table 82** Process Options

Option	Description
<b>Save job output with the job</b>	For storing the job output in the folder containing the job
<b>Save job output in another folder</b>	For specifying an output folder
<b>Process results to Interactive Reporting file</b>	For processing queries to the Interactive Reporting file Results section
<b>Process results to database table</b>	For creating a database table to store the data set. (Items on the Request line become the column headings. You can append columns to the table and query it. You need Create and Insert privileges on the database to process to a database table.)
<b>Query</b>	For selecting the query to process to a database table.
<b>Table Name</b>	For entering the name of the table that you are creating or to which you are appending columns (See your database administrator if you want to use a new table.)

Option	Description
<b>Create a table for each run, appending date to table name</b>	For creating a table for each job run and appending the date to its name
<b>Delete and recreate table for each job run</b>	For deleting the old table and creates a table for each job run (Runs use the same table name. )
<b>Create table on initial run, and then append data to existing table</b>	For creating a table on the initial run and adding data to the table
<b>Grant access to:</b>	For entering additional usernames (separated by commas) (You need Grant privileges to use this field. If Grant Access to is not selected, the table is granted only to your user name.)

## Action Options for Multiple-Cycle Jobs

The action is the output method. The options on the actions page vary depending on the action.

Actions and items to which they apply:

- **Export**—Dashboard, Report, Results, Chart, Pivot, OLAPQuery, and an entire document as a web page
- **Save Document**—Entire Interactive Reporting file
- **Print**—Dashboard, Report, Results, Chart, Pivot, and OLAPQuery (Available if the administrator defined a printer for Oracle's Hyperion® Interactive Reporting Studio)
- **E-mail Section**—Dashboard, Report, Results, Chart, Pivot, and OLAPQuery
- **E-mail Document**—Entire Interactive Reporting file

**Note:** A cycle can have only one Save As Job Output action. It can have multiple save actions but can be saved as a file on only some output folders.

➤ To set action options for a multiple-cycle, Interactive Reporting job:

- 1 From **Explore**, right-click the job, and select **Run Job**.
- 2 Click **Go** to add another cycle to this job.
- 3 From the actions list, select a value and click **Go**.

**Table 83** Export Action Options

Option	Description
<b>Section</b>	Section to be saved, printed, mailed, or exported.
<b>Filename</b>	Export file name (no extension)

Option	Description
<b>Format</b>	Export file format: <ul style="list-style-type: none"> <li>● Microsoft Office Web Archive (*.mhtml)</li> <li>● Excel (*.xls)</li> <li>● HTML (*.htm)</li> <li>● Lotus 1-2-3 (*.wks)</li> <li>● Text (Tab Delimited) (*.txt)</li> <li>● Text (Comma Delimited) (*.csv)</li> <li>● Adobe Acrobat (*.pdf)</li> <li>● Graphics file (*.jpg)</li> </ul> <p><b>Note:</b> The choices depend on the export section type and text port action type.</p>
<b>Export as job output</b>	For exporting the section to the current job folder in the repository. (The filename is not used with this option.)
<b>Save as job output</b>	For saving the section to the current job folder in the repository. (The file name is not used with this option.)
<b>Output Directory</b>	The directory for saving the export file or Interactive Reporting document
<b>Append Unique Identifier to Filename</b>	For appending the job ID# and report cycle name to the saved document or export file; ensures that the file is recognizable if similar files are saved to one directory.
<b>Append Date to Filename</b>	For appending the date (year, month, and day) to the saved document or exported file
<b>Save in Output</b>	Sets the type of output saved with the Interactive Reporting document. The output types include the Results section and computed items. Use the Include drop-down to view and select the output type. Available options include: <ul style="list-style-type: none"> <li>● Inherit from BQY—The output saved with the document is determined when the Interactive Reporting document (BQY) was created.</li> <li>● Results and Computed Item—Saves the Results set and computed items. Saving results with your query allows you to analyze and generate reports without being connected to the database. Results are saved for an individual query or for multiple queries for which results have been generated. Having your results set makes sense if you cannot connect to a database, for example, when traveling or working remotely, or if you are scheduling or forwarding documents for someone else's use.</li> </ul> <p>Computed values are recalculated when the document is opened and the query is reprocessed. If the corresponding Results section contains a large number of column items which use complex formulas in their definitions, the document may take a while to open.</p> <ul style="list-style-type: none"> <li>● Results and No Computed Items—Saves the Results section, but not computed items. This is especially useful when you need to view a Results set, but do not need to show and recalculate computed items.</li> <li>● No Results—Saves computed items, but not the Results section with the document. To automatically recalculate the values of computed columns when a document is opened, do not select the corresponding Results section. The document may take longer to open, especially if the Results set contains a large number of computed columns or uses complex formulas in the definitions, since all computed values are recalculated in the Results section and in any other section that references the Results section.</li> </ul>
<b>Compress</b>	For saving the job file in Interactive Reporting, compressed-file format.
<b>Message</b>	Enter the message text to send with the e-mail




Option	Description
<b>Attach File</b>	Select to include the scheduled file in an e-mail message
<b>Save in File</b>	<p>Sets the type of output saved with the Interactive Reporting document attached in the e-mail. The output types include the Results section and computed items. Use the Include drop-down to view and select the output type. Available options include:</p> <ul style="list-style-type: none"> <li>● <b>Inherit from BQY</b>—The output saved with the document is determined when the Interactive Reporting document (BQY) was created.</li> <li>● <b>Results and Computed Item</b>—Saves the Results set and computed items. Saving results with your query allows you to analyze and generate reports without being connected to the database. Results are saved for an individual query or for multiple queries for which results have been generated. Having your results set makes sense if you cannot connect to a database, for example, when traveling or working remotely, or if you are scheduling or forwarding documents for someone else's use.</li> </ul> <p>Computed values are recalculated when the document is opened and the query is reprocessed. If the corresponding Results section contains a large number of column items which use complex formulas in their definitions, the document may take a while to open.</p> <ul style="list-style-type: none"> <li>● <b>Results and No Computed Items</b>—Saves the Results section, but not computed items. This is especially useful when you need to view a Results set, but do not need to show and recalculate computed items.</li> <li>● <b>No Results</b>—Saves computed items, but not the Results section with the document. To automatically recalculate the values of computed columns when a document is opened, do not select the corresponding Results section. The document may take longer to open, especially if the Results set contains a large number of computed columns or uses complex formulas in the definitions, since all computed values are recalculated in the Results section and in any other section that references the Results section.</li> </ul>
<b>Compress</b>	For sending the saved job file in Interactive Reporting compressed-file format.

## Example: Importing and Scheduling a Job

This example illustrates importing and scheduling of an Interactive Reporting job. In this example, you import and schedule `sample1.bqy` to run once per quarter.

➤ To import `sample1.bqy`:

- 1 **Navigate to the folder to which to import the job.**
- 2 **Select File, then Import, and then File as Job.**
- 3 **In File, click Browse to search for the file `sample1.bqy`. Click Next.**
- 4 **For Query, on Connecting to Data Sources, under Connection, select Sample for the Query/DataModel name called SalesQuery, and click Next.**
- 5 **For Interactive Reporting Job Properties, select Users running this job can define their own cycles and actions, and click Next.**
- 6 **For Job Defaults, set General Properties and Locale and click Next.**
- 7 **In Permissions,**
  - give the World group access to `sample1.bqy`.
  - a. Under **Users, Groups, and Roles**, click Update List.

- b. Select a user and click .
- c. Under **Selected Users, Groups, and Roles**, select the user and click **Edit**.
- d. On **Permissions**, select the access permissions level for the job and the job output, and set the adaptive state.
  - Access to Job—Full Control
  - Adaptive state—View
- e. Click **Finish**.

Permissions is displayed.

**8** Click **Finish and Schedule**.

**9** On **General Properties**, in **Name**, enter *Quarterly*, and click **Next**.

**10** On **Job Parameters**, click **Next**.

**11** On **Cycles**, by **Add another cycle to this job**, click **Go**.

**12** Define a cycle:

- Under **Define Cycle**, in **Cycle Name**, enter *Weekly*.
- Under **Add a(n) (blank) Action to this Cycle**, select **Email Document**, and click **Go**.

**13** On **Add/Modify Action: Email Document**, in **To**, enter your email address.

**14** Select **Send File** and/or **Send Results**, and click **OK**.

**15** On **Define Cycle**, click **OK**.

**16** On **Cycles**, select **Save Job Parameter Name**, select **Personal** from the drop-down list, enter a name in the box, and click **Next**.

**17** On **Time Events**, select **Define when to run this job starting with**, and select **A New Recurring Time Event**, and click **Next**.

**18** On **Define Event**:

- In **Name**, enter a name.
- In **Days to Run**, select **By Quarter**.
- Click **Next**.

**19** Under **Notification**, select **Display notification in Schedule Module**, and click **Finish**.

The job is now scheduled to run.

# 9

## Using Production Reporting and Generic Jobs

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## Overview

Production Reporting jobs are created with Oracle's Hyperion® SQR® Production Reporting Studio. Generic jobs are created using applications with a command-line Production Reporting interface. You can use the Explore and Schedule modules to import, run, and schedule Production Reporting and generic jobs. You also use properties and parameters to further define Production Reporting and generic job options.

This chapter explains the properties specific to Production Reporting jobs, generic jobs, and Production Reporting documents (Production Reporting job output).

For basic importing procedures, see [Chapter 3, “Importing Artifacts.”](#) For basic job execution and scheduling procedures, see *Oracle Enterprise Performance Management Workspace User's Guide*.

## Prerequisites for Importing Jobs

Information needed for importing a Production Reporting job:

- Database connectivity, database type, and Production Reporting version needed to run the Production Reporting program that you are adding (select from the list); for example, Marketing Production Reporting v. 9
- Files that the Production Reporting program references:

- Include files (#INCLUDE commands)
- Input data files (open for-reading commands)
- Image files (print-image and declare-image commands)
- Compile-time parameters (ASK commands) and runtime parameters (INPUT commands).
- For secure Production Reporting jobs, the security organization of the program: which users have access to which data and how the output is (divided) (burst).

## Job Properties

The properties explained in the following topics pertain only to Production Reporting and generic jobs. Properties that do not apply to generic jobs are noted. See [“Generic Job Properties” on page 278](#) for properties unique to generic jobs.

Production Reporting jobs have these properties:

- General properties
- Advanced options
- Connectivity and run options
- Parameters
- Output

Production Reporting and generic jobs and other items, such as BQY jobs share many general properties and advanced options. See [“Working with Properties” on page 71](#).

➤ To access properties:

- 1 From **Explore**, select a **Production Reporting job**.
- 2 Select **File**, and then **Properties**.

Review properties:

- Click **General**. See [“General Properties” on page 71](#).
- Click **Advanced**. See [“Advanced Properties” on page 72](#).
- Click **Production Report** to review Production Reporting properties:
  - Click **Required Files**. See [“Required Files” on page 270](#).
  - Click **Connect**. See [“Connection and Run Options” on page 270](#).
  - Click **Parameters**. See [“Parameters” on page 272](#).
  - Click **Output Options**. See [“Job Output” on page 275](#).
  - Click **Advanced**. See [“Advanced Production Reporting Options” on page 272](#).

## Dependency Analysis Commands

When importing Production Reporting job, the system can analyze your Production Reporting program for dependencies. The analysis occurs if you request the system to scan for required files and INPUT and ASK parameters. Analysis can be time-consuming if your Production Reporting program is large.

The system examines these commands in your Production Reporting program:

- **INCLUDE**—Includes an external source file in the Production Reporting report specification; for example, a Production Reporting code file, `charts.sqi`, required by `stocks.sqr` when it compiles
- **OPEN**—Opens an operating system file for reading or writing; for example, an OPEN statement that opens a file for sequential reading the data in the file, which is identified to the program as 1:

```
open 'stocks.dat' as 1 for-reading record=100
```

- **DECLARE-IMAGE**—Declares the type, size, and source of an image to be printed; for example:

```
declare-image control flow
  type = eps-file
  source = 'controlf.eps'
  image-size = (321, 309)
end-declare
```

- **PRINT-IMAGE**—Prints an image in any report section (As with the `declare-image` command, the `print-image` command accepts type, size, and source arguments.)
- **ASK**—Retrieves a compile-time substitution variable (Retrieval can be by user input, command-line arguments, or entries in the `@file` on the command line.)
- **INPUT**—Retrieves a runtime variable (Retrieval can receive by user input, command-line arguments, or entries in the `@file` on the command line.)
- **PRINT URL="..."**—Prints the file found at the URL location, usually an image file (The file is listed with the required files for the job.)
- **SECURE**—Retrieves the secure tag

## Advanced Options

The Security Tags Included property, which is read-only, indicates whether the job is secure. Secure jobs can have only HTML output. All other advanced options are explained in [“Working with Properties” on page 71](#).

## Connectivity and Run Options

These topics describe all data source connection properties and run properties for Production Reporting jobs:

- [Connection and Run Options](#)

- [Required Files](#)
- [Required-File Addition](#)
- [Advanced Production Reporting Options](#)

## Connection and Run Options

Use these options, which apply only to Production Reporting jobs, to configure or change the database connections and the Production Reporting engine for the job.

Connection and Run Options	Descriptions
<b>Data Source and Production Reporting Engine</b>	For selecting a data source and a Production Reporting engine If the data source or engine that you need is not available, see your administrator.
<b>Database Connectivity</b>	<b>Use Job Service connectivity for this data source</b> —For using the default username and password <b>Prompt for username/password</b> —For prompting users to enter IDs and passwords at runtime <b>Use the username/password specified below</b> —For setting the username and password now on import
<b>Allow pass-through where end user's authentication system is enabled for it</b>	For enabling users to access data sources without additional credentials.

## Required Files

When importing a file or job, you can identify and locate required files by scanning the Production Reporting program, or you can manually enter the required files.

**Note:** Scanning the Production Reporting program to locate required files is possible only during the import process.

As you identify and locate required files, they are added to the required files screen. For generic jobs, you must manually enter required files.

Files that can be associated with a job or Production Reporting document and required for successful execution:

- For Production Reporting jobs, Include, Data, Image files, and INI file
- For generic jobs, associated files used for running the job
- Production Reporting documents and associated files used in viewing the document

This chapter concentrates on required files managed through a listing interface, namely files for Production Reporting and generic jobs and Production Reporting documents. The INI file and the custom-form required files are managed through another interface.

**Note:** Scan for required files before manually entering required files, because the scanned results replace the required files list. If duplicate required files are listed, you must delete the extra files.

**Table 84** Job Properties

Job Properties	Descriptions
<b>Name</b>	Required-file name The local file icon next to the name indicates that the file is on your local system.
<b>Location</b>	Required-file path If the location is not listed, you must find the file by selecting Modify or delete the file.
<b>Type</b>	The type (INCLUDE, IMAGE, DATA), as determined by the system. Manually entered JPEG, GIF, and HTML files are given the IMAGE type. You must select a type for other manually entered files. All files must have a type before you can continue the importing process.
<b>Action</b>	<b>Retrieve</b> —Open any type of required file <b>Replace</b> —Replace the file with one selected from your local computer or Reporting and Analysis Framework repository <b>Delete</b> —Delete the file <b>Modify</b> —Browse the local system for files that the system could not locate
<b>Add Files Manually</b> <b>Note:</b> Scanning is available only during the import process.	Default method to locate required files for a job You can enter each required file separately or zip the required files and enter the zip file manually. Reporting and Analysis Framework extracts the zipped files and adds them to the required files summary list. <b>Scan Folders Specified in Preferences</b> — The Production Reporting program scans listed folders for required files. Files not located are listed on the summary screen with the File not found message under location. Locate missing files by selecting Modify.
	<b>Scan All of Oracle's Hyperion Reporting and Analysis</b> — The Production Reporting program is scanned for required files, and files in the Reporting and Analysis Framework repository are listed on the required files summary list. If your program uses variables for file names in the OPEN, DECLARE-IMAGE, or PRINT-IMAGE commands, you receive a warning message that the system cannot find the files unless you provide their names. Ignore the message, if you enter the required files manually or if the variables point to files that reside on the Job Service numbers. Otherwise, exit the import process and modify your Production Reporting program.

## Required-File Addition

Browse your local system or the repository for required files to add manually.

**Table 85** Add Required File Parameters

File Parameters	Descriptions
<b>Add File from my PC</b>	Add a file from your local hard drive.
<b>Add File from the Repository</b>	Add a file from the database.
<b>Browse</b>	Click to search files.

## Advanced Production Reporting Options

Advanced Production Reporting options apply only to Production Reporting jobs. For more information on command-line flags and the `SQR.ini` file, see *Hyperion SQR Production Reporting Developer's Guide Volume 2: Language Reference*.

Advanced Options	Descriptions
<b>Compile</b>	Compile the program Benefits: <ul style="list-style-type: none"><li>● Save time later when running the job</li><li>● Validate SQL ASK parameters</li><li>● Check program validity</li></ul>
<b>Command-line flags for Job Execution</b>	Optional command-line flags Some flags can be over-ridden by job-output option formats and demand-paging options, for example, <code>-burst</code> and <code>-printer.XX</code> where <code>XX</code> is a format type. This command-line flag option is unavailable: <code>-EH_CSVONLY</code> . The system accepts 250 characters on the command line.
<b>Use SQR.ini from File System on Job Factory Host</b>	Use the <code>SQR.ini</code> file location
<b>Custom SQR.ini</b>	Path to a custom <code>SQR.ini</code> file Browse for the file locally or in the repository. <ul style="list-style-type: none"><li>● <b>Add File from my PC</b>—Select a local file.</li><li>● <b>Add File from the Repository</b>—Select a file from the database.</li></ul>
<b>Enable search indexing</b>	Allows keywords generation during job execution. This is in support of searching for Production Reporting jobs.
<b>Persist foreground job output in repository when running this job</b>	Stores output in the repository.
<b>Allow Job Runners the option to change the persistence option</b>	When this is selected, <b>Persist foreground job output when running this job</b> is available to users when running the job in real time.

## Parameters

Production Reporting jobs have two parameter types, ASK and INPUT. ASK parameters (variables) are used at compile time. INPUT parameters (variables) are used when the job is executed and are displayed as prompts when users run the job. You can add ASK and INPUT parameters to the parameter list. Only Production Reporting jobs have ASK parameters. Production Reporting and generic jobs can have INPUT parameters. Further define a parameter by selecting Modify for the parameter. Also select custom forms for user input of parameters.



## Parameter Settings

Use **Parameters** to view scanned parameter or manually enter new ones. [Table 86](#) details the define parameter properties.

**Table 86** Parameter Properties

Parameter Properties	Descriptions
<b>Manually entering parameters</b>	Default method for entering ASK and INPUT parameters . See <a href="#">“Dependency Analysis Commands” on page 269</a> (Parameters are listed as you add them.)
<b>Scanning job and reading parameters from the Production Reporting code</b> <b>Available during the import process.</b>	Option to enable automatic scenery of the Production Reporting job and the INPUT and ASK parameters list
<b>Add another parameter to this job</b>	Select <b>INPUT</b> or <b>ASK</b> and click <b>GO</b> . See <a href="#">“INPUT Parameters” on page 274</a> .
<b>Prompt</b>	The prompt for values for the parameter
<b>Display</b>	The display format (Text, SQL Choice, Choice Box) for the parameters (Default is Text.)
<b>Default Value</b>	Default value for the parameter
<b>Modify</b>	Select to modify these properties for each parameter: prompt, display format, and default value
<b>Arrow icons</b>	Arrows to reorder the parameter. (The parameters are processed in the order that they are displayed on this list.)
<b>Garbage can icon</b>	Select to delete the parameter.

## ASK Parameters

ASK parameters can be entered as text or as an SQL query.

**Table 87** ASK Parameter Properties

Parameter Properties	Descriptions
<b>Display parameter on form as:</b>	Select a parameter display type: <ul style="list-style-type: none"> <li>● <b>Text Entry</b></li> <li>● <b>Choice of Values obtained from SQL Query</b></li> </ul>
<b>Prompt</b>	The prompt for the parameter
<b>Default value</b>	For entering a default value or allowing users to change the value (text entry only) The system requires a default value or section of <i>End-user can change value</i> .
<b>End-user can change value</b>	For allowing users to enter default values during runtime
<b>SELECT/FROM/WHERE</b>	SQL commands for retrieving the parameter list (SQL query only).

## INPUT Parameters

INPUT parameters can be entered as text, predetermined values, or an SQL query.

**Table 88** INPUT Parameter Properties

Input Parameter Properties	Descriptions
<b>Display parameter on form as:</b>	Select a parameter display type: <ul style="list-style-type: none"> <li>● <b>Text Entry</b></li> <li>● <b>Choice of Pre-Determined Values</b></li> <li>● <b>Choice of Values Obtained from SQL Query</b></li> </ul>
<b>Prompt</b>	Prompt for the parameter
<b>Data Type</b>	Data type (text, numeric, or date; default is text)
<b>Presentation</b>	Presentation format: drop-down list, option buttons, or list box (Pre-determined and SQL query only)
<b>Default value</b>	Enter a default value or allow users to change the value (predetermined and text entry)  If <i>Value optional</i> is unavailable, the system requires a default value or requires that <i>End-user can change value</i> is selected.  When \$FIXED_USERNAME is selected, <i>Value optional</i> and <i>End-user can change value</i> are disabled.
<b>Value optional</b>	Allows the parameter to have no default value and enabling users to execute jobs with no value for the parameter
<b>End-user can change value</b>	Allows users to enter default values during runtime  If no default is specified and this option is selected, users must specify default values.  When this option is selected, the allow multiple values field is selectable (predetermined and SQL query only).
<b>Allow multiple values</b>	Allows multiple values (list box presentation only)  If multiple values selected are used to create dynamic selection criteria within the Production Reporting program, the program must be designed to construct a WHERE clause.
<b>Validation Type</b>	Validation type (text only).
<b>Validation Mask</b>	Standard or custom validation mask (text only)
<b>List Values</b>	Values moved to the list with the right-facing arrows (predetermined only)  Delete values by selecting them in the list and selecting the left-facing arrows.
<b>SELECT/FROM/WHERE</b>	SQL commands for retrieving the parameter list (SQL query only).

## Custom Forms

You can select a custom JSP parameter form or use the standard form for INPUT parameter intake when the job is run. Parameter forms JSPs with input fields. They can also be more complex, invoking JavaScript or applets. You can select a customized parameter collection form developed by your company.

The assigned form is stored in the repository. You can assign a custom form from your local system or from the repository.

Custom Form Options	Descriptions
<b>Standard Form</b>	Default HTML parameter form, which is displayed only when properties are being modified
<b>Custom Form</b>	Upload the custom-form file by clicking ADD (next to Custom Form) and browsing to it
<b>Required Files</b>	Add supporting files, such as images, used by the selected form <b>Name</b> —Required-file name <b>Location</b> —Required-file path (The icon next to the name indicates that the file is on your local system.)
<b>Action</b>	<b>Replace</b> —Replace the file with one selected from your local system or the repository <b>Delete</b> —Delete the file
<b>Add Files Manually</b>	Add required files by clicking Go.

## Parameter List Options

INPUT Parameter List Options	Descriptions
<b>Smartform allows user to choose a Parameter list</b>	Allow users to choose parameter lists at runtime
<b>Smartform allows user to save as Job Parameter</b>	Allow users to save a parameter for values entered in the input fields

## Job Output

HTML format is always selected for an output format. You can add additional output formats by selecting them or listing them in the text box.

## Output Options

**Table 89** Output Options

Output Options	Descriptions
Output Options	<p>Output formats generated from your Production Reporting program:</p> <ul style="list-style-type: none"> <li>● <b>HTML</b></li> <li>● <b>Interactive Reporting Data (bqd)</b></li> <li>● <b>Smart View</b></li> <li>● <b>Adobe Acrobat</b></li> <li>● <b>PowerPoint</b></li> <li>● <b>PostScript</b></li> <li>● <b>HP Printer</b></li> <li>● <b>Excel</b></li> <li>● <b>XML</b></li> <li>● <b>Comma Delimited</b></li> <li>● <b>Line Printer</b></li> <li>● <b>Word</b></li> <li>● <b>Excel</b></li> </ul> <p>HTML is the default.</p> <p>Values entered in <i>other</i> are stored as a custom property.</p> <p>Formats selected here override output formats specified in other Production Reporting Command-Line Option interfaces.</p> <p><b>Note:</b> “SPF output” is used to show or hide SPF output, which is always generated, in the output listing.</p>

## Demand Paging

Demand paging offers options for splitting, or bursting, the report into separate files for better performance. By bursting a report, you avoid downloading the report in its entirety into the browser.

For secure Production Reporting jobs, select an HTML Demand Paging option according to how the report divides the output among users or groups.

Demand paging is for Web output types which include HTML, BQD, XLC, and CSV. Printed output types include PDF, SPF, PS,LP, and HP.

**Table 90** Demand Paging Options

Demand Paging Options	Descriptions
<b>Write the entire report as one file</b>	Write report output to one HTML file (Not available for a secure Production Reporting job)

Demand Paging Options	Descriptions
<b>Write a separate file every ___ pages</b>	<p>Create an HTML file for every N pages</p> <p>For example; if you enter 1, an HTML file is created for every report page; if you enter 20, an HTML file is created for every 20 pages.</p> <p>Default: An HTML file for every page in the report</p>
<b>Write a separate file based on table of contents level</b>	<p>Create HTML files for the table of contents</p> <p>If you enter 1, a separate HTML file is created for each level 1 entry in the table of contents. If you enter 2, an HTML file is created for each level 1 and level 2 entry.</p> <p>Default: An HTML file for each level 1 entry</p> <p><b>Note:</b> If no table of contents exists, the report is saved as one HTML file.</p>

## Advanced Output Options

**Table 91** Advanced Output Options

Advanced Output Options	Description
Allow users to add job output to a Personal Page	Allows users to embed job output contents (HTML only) in personal pages
Command-line flags for Job Output	Command-line flags to be used in output bursting.
Auto delete job outputs after	Defines when to delete job output automatically

## Compile Properties

You can compile Production Reporting programs before you run them. All precompile programs recompile if the INCLUDE file is modified.

Compile Properties	Descriptions
<b>Compile-Time flags</b>	Command-line flags for use at compile time
<b>Database user name</b>	Username to access the database
<b>Database password</b>	Password for the username
<b>ASK parameters</b>	Modifies default values for ASK parameters required by the Production Reporting job

An Production Reporting document is a printer-independent file format that accommodates all Production Reporting graphical features, including fonts, lines, boxes, shaded areas, charts, bar codes, and images. Production Reporting portable files have a default extension of SPF or SNN (for multiple reports). This file format is very useful for saving report output. Production Reporting documents can be distributed electronically and read with the Production Reporting viewer. You can decide later where to print a document.

## Generic Job Properties

Most generic job properties and Production Reporting job properties are the same. General properties, advanced options, and parameter properties are the same except where noted in the Production Reporting Job Properties section.

Job input and output properties are unique to generic jobs and are explained in the following topics.

## Generic Job Output Options

If the application that you need to run your program is not available, see your administrator to configure a job service with the application that you need.

Generic Job Output Options	Descriptions
<b>Job Factory Application</b>	Application that runs the program  If the required application is not on the list, a job service must be configured for the application <i>before</i> you proceeding with the job setup. Contact your system administrator to configure the application.
<b>Command-line flags for Job Execution</b>	Command-line flags to be passed to the application

## Required Files for Generic Jobs

Identify and locate required files by manually entering the required files. As you identify and locate required files, they are added to the required files page.

Properties of Required Files	Descriptions
<b>Name</b>	Required-file name  The icon next to the name indicates that the file is on your local system.
<b>Location</b>	Required-file path  If the location is not listed, you must find the file by clicking the modify icon or delete the file.
<b>Action</b>	<b>Retrieve</b> —Downloads the file  <b>Replace</b> —Replaces the file with one from your local computer or the Reporting and Analysis Framework repository with the same name  <b>Delete</b> —Deletes the file
<b>Add Files Manually</b>	Method for locating required files for a job  Enter files separately or zip them and enter the zip file name. Reporting and Analysis Framework extracts the zipped files and adds them to the required file summary list.

## Database Connectivity for Generic Jobs

DB Connectivity for Generic Jobs Properties	Descriptions
User name	User name for the data source
Password	Password for the data source
Database Connect String	Database connect string for the data source
Allow pass-through where end user's authentication system is enabled for it	Allows users to access data sources without entering credentials

## Output Options for Generic Jobs

Output Options for Generic Jobs	Descriptions
Display this primary output file after running the job:	Primary output format Separate formats with semicolons; for example, *.html; *.pdf. When a format matches, remaining formats are ignored. Default: All formats are shown
Output types generated by this job	Value to store as the property <code>SYS_OUTPUTFILETYPE</code> . Use API in your application to access this property.
Auto-delete output after the job is run	Defines when job output is deleted automatically

## Modifying Production Reporting and Generic Job Properties

The properties of Production Reporting and generic jobs can be modified. See [“Working with Properties”](#) on page 71.

The Output Summary section, from which you can delete output, is available when you modify properties.

SQR and Generic Job Properties	Descriptions
Last Run Date	Lists the date the job was last run.
Output Formats	Lists the output formats generated.
Delete Selected	In the first column, select dates, then click <b>Delete Selected</b> to delete.
Page	Navigates through multiple pages of output by entering a page in this text box, or by clicking the arrows.

# Setting Production Reporting and Generic Job Parameters

You must set the necessary runtime values for a job before the job is run or scheduled. You can save the values as personal job parameters, so they can be used again.

- ▶ To set job parameters for Production Reporting and generic jobs:
  - 1 **Run or schedule a job.**  
See [“Running Jobs” on page 237](#) or [“Scheduling Jobs” on page 235](#).
  - 2 **Enter the necessary runtime values in the Set Values section if you are running the job or on Parameters if you are scheduling the job.**  
You must specify values for all ASK parameters unless you specified default values when importing the job or unless you have a saved job parameter in the Job Parameter list.
  - 3 **Optional: To save the values as personal job parameters, click Save and enter a name for the parameters.**

## Output Options for Scheduling Jobs

The standard job output options are explained in [“Scheduling Jobs” on page 235](#). Production Reporting jobs offer additional e-mail notification options and output directory options.

## E-mail Notification Options

Production Reporting jobs offers e-mail notification options.

Email Notification Options	Descriptions
Email Address(es)	Email addresses for sending status reports; separate with semicolons, colons, space characters, commas, or lines.



Email Notification Options	Descriptions
<b>Attach job outputs to email messages in these formats</b>	Select formats for e-mail attachments: Default: HTML <ul style="list-style-type: none"> <li>● <b>HTML</b>—Default</li> <li>● <b>Comma Delimited</b></li> <li>● <b>Line Printer</b></li> <li>● <b>Include Dependent Files</b>—Includes all email attachment files dependent on this job.</li> <li>● <b>SPF</b></li> <li>● <b>Interactive Reporting Data</b></li> <li>● <b>Smart View</b></li> <li>● <b>Adobe Acrobat</b></li> <li>● <b>Postscript</b></li> <li>● <b>HP Printer</b></li> <li>● <b>Other</b>—Enter a file type.</li> </ul>
<b>Zip Options</b>	Zip file options: <ul style="list-style-type: none"> <li>● <b>Do not compress attachment files</b>—Zip file not created</li> <li>● <b>Combine all attachments into one Zip file</b>—Zip file contains HTML and selected file formats</li> <li>● <b>Combine only HTML and Graphics into Zip file</b>—Zip file contains HTML and selected graphic file formats</li> </ul>

## Output Directory Options

Table 92 Output Directory Options

Output Directory Options	Descriptions
<b>Output Directory</b>	Automatically save job output in the directory containing the job  When you select an output directory, job output is saved to the selected directory. (Your administrator configures the directory list.)
<b>Save output in these formats</b>	Save job output in additional formats  HTML is automatically generated. These options work only if you select a directory from the list.
<b>Include dependent files</b>	Include all files dependent on your job.
<b>Status Report</b>	Receive all status reports  Default: Receive status reports only when errors occur
<b>Email Status to</b>	Email addresses for sending status reports; separate with semicolons, colons, space characters, commas, or lines

**Note:** You can list all output formats using a delimiter (;) in the Other Formats text field for Schedule Output Properties.

**Note:** The Save to Output Directory section is displayed only if the administrator has configured an output directory.

## Working with Secure Production Reporting Jobs

Secure and insecure Production Reporting jobs are handled differently. For secure jobs, security tags are applied to report sections. The following topics explain what secure jobs are and how their security is accomplished and protected.

If the Production Reporting programmer applies security tags to report sections, thereby restricting access to the sections to specified users, the report is secure. Production Reporting produces only HTML output (with images) for a secure report. For details on programming a secure Production Reporting report, see your Production Reporting documentation.

When a secure Production Reporting job is run, the security tags are written to the Production Reporting. When the document is executed, each resulting HTML file is given a security tag assuring that only users authorized to see all data in the file can see the file.

It is important to set the bursting (or demand paging) options appropriately for a secure report, so the resulting files correspond to the way that the Production Reporting program divided data among users. If you do not burst the Production Reporting document correctly, security is preserved, but some users may not have access to data that they should be able to see.

The Production Reporting document written by running a Production Reporting program can be imported into the repository. Executing a secure document yields the same output with the same access privileges as executing the secure job.

## Access Privileges on Secure Production Reporting Jobs

Access privileges on output files are derived, first, from the user's access when the job is executed or from the job output access privileges, if the privileges are set. Each output file may also have an associated set of security tags. Job owners can change the access privileges on SPF or output files. In a Production Reporting document, which contains all data, broadening access means relaxing security on the report.

Users need *all* these privileges to see output files:

- View access on the report folder
- View access on the files
- Access granted by the Production Reporting security tags of the output files (The access is derived from the security tags in the code.)

Security tags are not checked when job output is deleted. Only normal access privilege checking is performed. Thus, a job output file owner can delete the file, regardless of whether the security tags enable the owner to view the file contents. If a secure report creates data file through a Production Reporting OPEN statement, only the job owner has view access to the file. The owner can relax security for the file.

## Security Mode

Every item in Production Reporting has a security mode that is on or off.

The security mode for all items derived from a secure Production Reporting file is on. These items include the Production Reporting document, all output files, the Production Reporting ProgramOutput item, and the SPFFileOutputCollection item. If a file is secure, this information is displayed in Properties (on the Advanced tab).

It is possible to create a secure Production Reporting program that produces secure and nonsecure output. The Production Reporting program can be coded so that some pages are output without security, while the rest are secure. In this case, users with access to the output files through normal EPM Workspace access control see the nonsecure output pages and the secure pages that they are authorized to see. The ability to create secure and nonsecure pages within a secure Production Reporting program is governed with the `security` command in Production Reporting.

You can create or replace a version of a secure report, but the security mode for the new version and the original must match.

## Recommendations for Security

Recommendations for ensuring the security of secure Production Reporting jobs and documents in EPM Workspace:

- Establish dedicated user accounts for secure Production Reporting or SPF jobs.
- Use a dedicated account for one secure report or a group of related secure reports.
- Ensure that secure jobs are run only from dedicated accounts.
- Limit access to the dedicated account to as few people as possible, because everyone with access to it can import secure jobs and access the Production Reporting document, which contains all data.

## Programmer Conventions

Production Reporting has built-in conventions for designating security tags to EPM Workspace users or groups. A security tag that begins with `u#` represents a user. A security tag that begins with `g#` represents a group.

## Viewing Security Information

Secure Production Reporting programs tailor their output for multiple users and restrict access accordingly. You can determine whether a file related to the Production Reporting program is secure by viewing its security mode.

For secure Production Reporting file and its related files, the Secure mode property is set to `on`. The related files include Production Reporting output files, document collections, and Production Reporting documents output collections.

► To view the security mode of a file:

- 1 **Select the file, and Modify.**
- 2 **Open the Advanced Options section.**

If the file is secure, the *Security Tags Included* box is checked.

## Supporting Exceptions in Production Reporting or Generic Programs

The following topics are for Production Reporting and generic report programmers, who support exception notifications to users. (Users can receive e-mail notifications or see a graphic indicator on the Exceptions Dashboard on personal pages.)

### Production Reporting Programming

For Production Reporting programs to support exceptions, they must include these lines:

```
open 'output.properties' as 0 for-append record=32767:vary
write 0 from 'exception.default=on'
write 0 from 'exception.default.text=<exception text>'
close 0
```

### Generic Report Programming

For generic jobs or files to support exceptions. Programmers must use the EPM Workspace API to configure exception reporting through the job output properties, exception present and exception text.

## Setting Priority on Output Programmatically

In Production Reporting programs, you can set the output as high priority. In Explore module listings, users see the high-priority icon next to any high-priority job output or version. Users can also sort by priority (normal or high).

To set priority to high on the output, a program writes the string `rating=high-priority` to the `output.properties` file used by the job service. This code excerpt accomplishes this objective:

```
open 'output.properties' as 0 for-append record=32767:vary
write 0 from 'rating=high-priority'
close 0
```

# 10

## Using Custom Parameter Forms for Production Reporting Jobs

### In This Chapter

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## Customizing Parameter Forms

A Production Reporting job uses a parameter form to obtain INPUT parameter values at runtime. This section explains how to customize parameter forms.

**Note:** The parameter forms are in JSP. Customizing the standard form provided with Production Reporting requires a working knowledge of JSP and Java.

By default, when you run a Production Reporting job or create or modify a parameter list, Reporting and Analysis Framework generates a standard form to collect parameter information. You can customize the form. For example, some jobs may require a more sophisticated field layout, or your organization may require certain conventions.

You can associate custom parameter forms with jobs at runtime. You run or schedule a job that is associated with a custom form, which is displayed instead of the standard form.

A parameter form is a JSP containing input fields. Forms can also be more complex, invoking JavaScript or an applet.

## Parameter Form Process

The parameter form associated with a job or the standard form is displayed when you perform any of these actions:

- Select **Run Job** from the job shortcut menu
- From an item list, select the job name
- Create or modify parameter list while scheduling the job

After you submit a completed form for execution, Reporting and Analysis Framework performs these actions:

1. Validates parameters for which validation is defined
2. Processes the form

The form can collect parameter values and database logon information, as required by the job. For scheduling, the form can also collect the parameter list name and description.

3. Creates or modifies the parameter list or runs the job, as applicable
4. If the job was run, retrieves and displays job output

## Assigning Parameter Forms Jobs

This procedure applies only to custom parameter forms created for use in Production Reporting.

**Note:** Custom parameter forms created prior to Production Reporting are in HTML and must be recreated as JSP forms for use with Production Reporting.

► To assign a custom parameter form to a Production Reporting job:

- 1 In the browser, navigate to the job, and right-click the job name.
- 2 Select **Properties** from the top menu.
- 3 Select **Custom Form**, and browse to the file to use.
- 4 If your form uses additional files, such as GIFs, select **Show Required Files**.
- 5 When you finish changing form properties, click **OK**.

## Assigning the Standard Form

After assigning a custom form to a job, you can reassign the standard form.

► To assign the standard form to a job:

- 1 In the browser, navigate to the desired Production Reporting job, right-click the job name and select **Properties**.
- 2 Select **Production Report** and **Parameters** from the top menu.
- 3 Select **Standard Form**.
- 4 Select **OK**.

## Editing Parameter Forms

Edit a custom form before you assign it to a job. To edit a form after it is assigned to a job, download it, change it, and upload it to the repository. An edited standard form is uploaded as a custom form.

Production Reporting parameter forms contain JSP tags or scriptlets that graphical HTML editors cannot display correctly. However, the tags are designed so that you can use some graphical HTML editors to modify layouts. Before using an editor, ensure that it does not alter code.

Using an editor to modify a parameter form requires knowledge of Production Reporting parameter-form API and JSP tags. When editing a parameter form, keep the scriptlet code blocks together. Otherwise, it may not work correctly.

To edit a parameter form, use a nongraphical HTML editor, such as Macromedia Homesite. Be careful not to alter the JSP tags.

➤ To edit a parameter form:

- 1 In the browser, navigate to the Production Reporting job, right-click the job name and select **Properties**.
- 2 From the top menu, select **Parameters**.
- 3 Select **Custom Form**.
- 4 Select **Modify**, select **Add** next to Custom Form.
- 5 Download the standard form, or browse your PC or the repository for a custom form.
- 6 If editing the standard form, specify a location for saving an editable copy, and enter a name for the new custom form.
- 7 Edit the form locally.  
See [“Parameters” on page 272](#).
- 8 Click **OK** to save changes.

## Parameter Form Elements

You create a parameter form as an HTML file that contains special elements. Before displaying a parameter form, Reporting and Analysis Framework interprets and processes elements that it encounters in the form. Typically, Reporting and Analysis Framework processes an element by replacing it with the value indicated by the element. For example, it replaces `<%=targetFormParameter.getJobName()%>` with the job name.

**Note:** Parameter form elements are case sensitive.

## Element Types

The main element types of parameter forms:

- Basic
- Conditional
- Looping

### Basic Elements

Basic elements have the form `<%= (bean) .getxxx() %>>`.

Example: `<%=targetFormParameter.getJobName() %>`.

### Conditional Elements

A conditional element has the standard JSP or Java conditional code:

```
if () {}  
else {}
```

You can insert HTML or applicable parameter form elements between the start and end tag. Production Reporting evaluates whether the condition indicated by the *has Value* argument is true or false. If true, the enclosed HTML is included in the displayed form, If false, the HTML between the start and end tags is ignored.

### Looping Elements

Looping elements have this form:

```
<getxxxLoop>  
...  
</getxxxLoop>.
```

An example is `getParameterPickListLoop`. You can insert HTML elements between the start and end tags. When Reporting and Analysis Framework processes the elements, it processes the loop contents until the loop finishes. The loop termination condition depends on the element.

### Required Elements

A parameter form provides required elements and elements to use if, for example, you are setting up a parameter pick list or must access information from a database.

Required elements include elements that identify a file as a parameter form file, return parameter information, and return the URL to use when you submit the form for processing.



**Table 93** Required Elements

Elements	Function
<code>setParameterAskCond(String n)</code>	Selects the Nth ASK parameter, where <i>n</i> is from 1 to the total number of ASK parameters.
<code>getParameterFieldName()</code>	Returns the name of the HTML form field for setting the value of the parameter selected in <code>ParameterInputCond</code> or <code>ParameterAskCond</code>
<code>setParameterInputCond(String n)</code>	Selects the Nth INPUT parameter, where <i>n</i> is from 1 to the number of INPUT parameters
<code>getParameterName()</code>	Returns the current parameter name
<code>getParameterValue()</code>	Returns the value of the current parameter or, for a parameter list, the current value of the parameter

The following topics show code snippets using the required elements.

## Name Specification Elements

The element that follows specifies the import file name for the parameter form.

```
<jsp:include page="jsp/shared/formparameterFormJavaScript.jsp" flush=true>>
```

## Parameter List Elements

Scheduling a job requires the creation of a parameter list, which has a name and description and contains a value for each parameter associated with the job. When scheduling a job, you select a parameter list, which provides the set of parameters that Oracle's Hyperion Reporting and Analysis Framework uses when it runs the job.

## Parameter Display Elements

The following code snippet shows the use of elements for handling parameter values. If your form uses a parameter pick list, see the sample code at the end of this topic.

```
<getParameterInputCond hasValue="1">      <!-- 1st parameter -->
<!-- Name of parameter -->
<TD VALIGN="MIDDLE">
<FONT face="Arial, Helvetica, sans-serif" size="-1">
<B><getParameterName/></B>
</FONT>
</TD>
<TD VALIGN="MIDDLE" COLSPAN="2">
<INPUT TYPE="text" NAME="<getParameterFieldName/>"
VALUE="<getParameterValue/>" SIZE="30">
</TD>
</getParameterInputCond>
```

The `<getParameterInputCond>` and `<getParameterAskCond>` tags select the INPUT or ASK parameter that is used to resolve the `<getParameterName/>`

>, <getParameterFieldName/> and <getParameterValue> tags. You must set the hasValue argument from 1 to the number of INPUT or ASK parameters.

## Nonrequired Elements

For parameter forms, you can use nonrequired and required elements.

**Table 94** Nonrequired Elements

Elements	Function
<code>getEmbedParameterValidationRoutines()</code>	Adds the JavaScript parameter validation routines to the form
<code>isFormUsesParameterValidationCond()</code>	Returns true if the current job requires JavaScript validation routines
<code>isParameterValidationCond()</code>	Tests the current parameter for a validation function
<code>isParameterValidationMaskCond()</code>	Returns true if a mask is associated with the validation function of the current parameter
<code>resetParameterPickList()</code>	Initializes the static or dynamic choice options of the current parameter and prints an error message if initialization fails
<code>isParameterMultiValuesCond()</code>	Returns true if the parameter accepts multiple values
<code>see getParameterType()</code>	Returns the current parameter type number: Text edit = 0 Drop-down list = 1 Radio button = 2 List box = 3
<code>getParameterType()</code>	Returns the current parameter type number: Text edit = 0 Drop-down list = 1 Radio button = 2 List box = 3
<code>getParameterListPublisherDefaultsFieldName()</code>	Returns the name of the HTML form field used for the Publisher Defaults parameter list
<code>processParameterPickListLoop()</code>	Iterates through a parameter pick list values.
<code>getPickListParameterValue()</code>	Used within a loop construct for <code>processParameterPickListLoop()</code> Returns the next value in a parameter pick list;

Elements	Function
<code>getParameterPickListValueSelected(String presentationType)</code>	Must be used within a Java loop construct. Returns "selected" if the next value in the pick list is the current value for the parameter;  <b>Note:</b> You can set <code>presentationType</code> to "select" or "check." For a pick list for a parameter with only a few values, you can use buttons to display the options. In this case, setting the <code>presentationType</code> to "check" returns "checked." You can use this option to indicate which option is the current value for the parameter
<code>getParameterValidationMask()</code>	Returns the mask associated with the current parameter of the validation function
<code>getParameterValidationName()</code>	Returns the name of the current parameter of the validation function
<code>getPublisherDefaultsParameterValue()</code>	Returns the value of the current parameter in the Publisher Defaults parameter list
<code>isRequiredParameterCond()</code>	Returns true if the current parameter is required
<code>getSaveDefaultsCheckboxFieldName()</code>	Returns the name of the HTML form field that represents the "save default" box
<code>isShowFormsParameterListCond()</code>	Determines whether to display parameter lists
<code>isShowFormsSaveMyDefaultsCond()</code>	Determines whether the publisher selected "save as my defaults"
<code>isShowParameterListPublisherDefaultsCond()</code>	Returns true if the job is configured to display Publisher Defaults

## Standard Parameter Form

The standard parameter form for Oracle's Hyperion® SQR® Production Reporting is in JSP.

Notice the required import tags in the standard form example. A

`JavaBeanIFormParameterView` statement is used to access all form APIs to obtain information regarding the form parameter list.

**Note:** You can create a custom parameter form by modifying the standard form. Java and JSP can be leveraged to enhance the form.

## Standard Parameter Form Example

```
<%@ include file="/jsp/shared/common.inc"%>
<%@ page import="com.brio.one.web.ui.JSPUtility, com.brio.one.web.browser.ui.*,
com.brio.one.web.ui.config.*, java.util.*"%>
<jsp:useBean id="targetFormParameter" scope="request"
type="com.brio.one.web.ui.IFormParameterView"/>
```

```

<!--
This template is used for these purposes:
  1) Run a job that requires parameters or database user information
  2) Create a parameter list for a job
  3) Edit a parameter list for a job
This template is used when there is no custom ONE/SmartForm associated with the job.
-->
<jsp:include page="/jsp/shared/form/parameterFormJavaScript.jsp" flush="true"/>
  <TABLE border="0" width="98%" cellpadding="0" cellspacing="0">
    <TR>
      <TD WIDTH="45"><IMG <%=imgLocator.getSrcAltAttribute(request, "space.gif")%>
WIDTH="45" HEIGHT="1" ALT=""></TD>
      <TD WIDTH="15"></TD>
      <TD WIDTH="160"><IMG <%=imgLocator.getSrcAltAttribute(request, "space.gif")%>
WIDTH="160" HEIGHT="1" ALT=""></TD>
      <TD WIDTH="100%"><IMG <%=imgLocator.getSrcAltAttribute(request, "space.gif")%>
WIDTH="10" HEIGHT="1" ALT=""></TD>
    </TR>
    <TR>
      <TD COLSPAN="4"><IMG <%=imgLocator.getSrcAltAttribute(request, "space.gif")%>
WIDTH="45" HEIGHT="12" BORDER="0" ALT=""></TD>
    </TR>

<!-- Start Display of Parameters -->
  <%
    if (targetFormParameter.isParameterCond()) {
      // initialize the parameter loop
      targetFormParameter.resetParameterLoop();
      while (targetFormParameter.processParameterLoop()) {
        if (!targetFormParameter.isParameterHiddenCond()) {%>
          <TR>
            <TD><IMG <%=imgLocator.getSrcAltAttribute(request, "space.gif")
%> WIDTH="45" HEIGHT="5" BORDER="0" ALT=""></TD>
            <TD VALIGN="middle" COLSPAN="3"><IMG <
%>=imgLocator.getSrcAltAttribute(request, "space.gif")%> width="20" height="5" ALT=""></
TD>
          </TR>
          <TR>
            <TD COLSPAN="2"><IMG <%=imgLocator.getSrcAltAttribute(request,
"space.gif")%> WIDTH="45" HEIGHT="12" BORDER="0" ALT=""></TD>
            <!-- Name of parameter -->
            <TD VALIGN="MIDDLE" class="SystemDataText"><
%=targetFormParameter.getParameterName()%>:</TD>
            <TD VALIGN="MIDDLE" COLSPAN="2">
              <%
                int type = targetFormParameter.getParameterType();
                if (type == targetFormParameter.TEXT_EDIT) {%>

                  <INPUT TYPE="text" CLASS="Inputfield" onchange="onParamChange()"
NAME="<%=targetFormParameter.getParameterFieldName()%>" VALUE="<
%=targetFormParameter.getParameterValue()%>" SIZE="30"><%
                }

                if (type == targetFormParameter.DROPDOWN_LIST) {
                  targetFormParameter.resetParameterPickList(); %>

```

```

        <SELECT class="DataFrameDrop" NAME="<
%=targetFormParameter.getParameterFieldName()%>" onchange="onParamChange()" ><%
        if (!targetFormParameter.isRequiredParameterCond()) {%>
        <OPTION VALUE=""></OPTION><%
        }
        while (targetFormParameter.processParameterPickListLoop()) {%>

        <OPTION VALUE="<%=targetFormParameter.getPickListParameterValue()%>" <
%=targetFormParameter.getParameterPickListValueSelected("select")%>> <
%=targetFormParameter.getHTMLEscapedCurrentPickListParameterValue()%> </OPTION> <%
        }%>

        </SELECT><%
    }

        if (type == targetFormParameter.LIST_BOX) {
            targetFormParameter.resetParameterPickList();

            if (targetFormParameter.isParameterMultiValuesCond()) {%>
                <SELECT class="DataFrameDrop" NAME="<
%=targetFormParameter.getParameterFieldName()%>" onchange="onParamChange()" multiple
size="5"><%
                } else {%>

                <SELECT class="DataFrameDrop" NAME="<
%=targetFormParameter.getParameterFieldName()%>" onchange="onParamChange()" size = "5"><
%
                }
            if (!targetFormParameter.isRequiredParameterCond()) {%>

                <OPTION VALUE=""></OPTION><%
            }

            while (targetFormParameter.processParameterPickListLoop()) {%>
                <OPTION VALUE="<%=targetFormParameter.getPickListParameterValue()%>" <
%=targetFormParameter.getParameterPickListValueSelected("select")%>> <
%=targetFormParameter.getHTMLEscapedCurrentPickListParameterValue()%> </OPTION><%
                }%>

                </SELECT><%
            }

            if (type == targetFormParameter.RADIO_BUTTONS) {
                targetFormParameter.resetParameterPickList();
                if (!targetFormParameter.isRequiredParameterCond()) { %>

                    <input type="Radio" class="RadioButton"
onchange="onParamChange()" name="<%=targetFormParameter.getParameterFieldName()%>"
value="" checked><span class="RadioButtonText">No Selection Made</span><br><%
                }

                while (targetFormParameter.processParameterPickListLoop()) {%>

                    <input type="Radio" class="RadioButton" onchange="onParamChange()" name="<
%=targetFormParameter.getParameterFieldName()%>" value="<
%=targetFormParameter.getPickListParameterValue()%>" <

```

```

%=targetFormParameter.getParameterPickListValueSelected("check")%><span
class="RadioButtonText"><%=targetFormParameter.getPickListParameterValue()%></span><br><
%

    }
}
%>

        <TD VALIGN="TOP" COLSPAN="2"></TR><%
}

    if (targetFormParameter.isParameterHiddenCond()) {%>
        <INPUT TYPE="hidden" NAME="<%=targetFormParameter.getParameterFieldName()
%>" VALUE="<%=targetFormParameter.getParameterValue()%>"><%
    }
}
%>

        <TR>
        <TD COLSPAN="4"><IMG <%=imgLocator.getSrcAltAttribute(request,
"space.gif")%> WIDTH="45" HEIGHT="12" BORDER="0" ALT=""></TD>
        </TR>
</TABLE>

```

All form parameter APIs are directly accessed through the Java bean; for example:

```
targetFormParameter.getParameterHame()
```

Use Java scriptlet tags to run Java code blocks within the tags; for example:

```
<% String start="abc";%>
```

Use a JSP expression embedded in HTML to resolve variables to values at runtime; for example:

```

<HTML>
<BODY>
The start of the alphabet is <%=start%>
</BODY>
</HTML>

```

Parameter form information can also be accessed through the parameter form APIs. This example resolves the current value of the parameter name and display the name in the form:

```
<%=targetFormParameter.getParameterValue()%>
```

## Parameter Forms: Example and Tip

The following code snippet shows tag use for parameter pick lists.

```

<!-- Parameter Pick List example -->
<%
if (targetForm.setParameterInputCond("1")) {%>
    <SELECT NAME="<%=targetFormParameter.getParameterFieldName()%>"><%
    targetFormParameter.restParameterPickList();
    while(targetFormParameter.processParameterPickListLoop() {%>

```

```

        <OPTION VALUE="<%=targetFormParameter.getParameterPickListValue()%>" <
%=targetFormParameter.getParameterPickListValueSelected("select")%>><
%=targetFormParameter.getParameterPickListValue()%>
        </OPTION>
    }%>
</SELECT><%
}
%>

```

Custom form can import JSPs and thus become more modular. For example, the standard form example, includes a jsp include tag. The `<jsp:include>` tag is a standard JSP tag:

```
<jsp:include page="/jsp/shared/form/parameterFormJavaScript.jsp" flush="true"/>
```

The preceding example causes the `parameterFormJavaScript.jsp` file to be imported and executed with the standard form. Custom forms that include context, such as images, must be defined in the required files section.







# Accessibility

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For information on accessibility settings, guidelines, and navigation of EPM Workspace see the *Oracle Enterprise Performance Management Workspace User's Guide*.

This appendix describes EPM Workspace accessibility and compatibility features. For information regarding the recommended screen reader and magnifier to use with this product, refer to *Oracle's Hyperion Reporting and Analysis Readme*.

For Interactive Reporting, you must install additional scripts in order to work with JAWS. Install JAWS Scripts from **Tools**, then **Install**, then **JAWS Scripts**. The JAWS Scripts option is only available when a BQY file is open in EPM Workspace.

**Note:** you are using JAWS® Screen Reading Software, we recommend using the Internet Explorer browser.

## Accessibility for File Type Drop-down

The following keyboard shortcuts are supported in the File Type drop-down:

**Table 95** File Type Drop-Down – Accessibility Keys

Keys	Action
Down arrow	Drop the menu.

Keys	Action
Arrow up or down	Change selection.
Enter	Make selection.

## Accessibility for Show Columns dialog

The following keyboard shortcuts are supported in the Show Columns dialog:

**Table 96** Show Columns dialog – Accessibility Keys

Keys	Action
<b>Grid</b>	
Arrow Up/Down	Change selection.
Space bar	Check/uncheck the check box. Uncheck to hide that column in the Explore list.
<b>Move item/up/down arrow image to change the item's order in the list</b>	
Arrow Up/Down	Select the item to be moved.
Tab to Up/Down arrow image	Move item up or down.
Space bar	Activate to move item up/down.

## Accessibility for Favorites Manager Dialog

The following keyboard shortcuts are supported in the Favorites Manager dialog:

**Table 97** Favorites Manager Dialog – Accessibility Keys

Keys	Action
<b>Grid</b>	
Up/Down/Left/Right arrows	Change current cell selection.
Space bar	Check/uncheck cell.

## Accessibility for File Dialog

The following keyboard shortcuts are supported for the File dialog:

**Table 98** File Dialog – Accessibility Keys

Key	Action
Down arrow	When on any node, select next node below current. Selection will not wrap.
Up arrow	When on any node, select next node above current. Selection will not wrap.
page up	When on any node, get to last visible node on previous page, or, if there is no previous page, the last node on the current page.
Page down	When on any node, get to the first visible node on next page, or, if there is no next page, the last node on the current page.
Left arrow	When on any node, drill up to folder node (parent of current node). If already at root node, nothing happens.
Right arrow	When on a folder node, drill down into folder and present contents.
Enter key	When on any node except folder node, select the item.

## Accessibility for File Accumulator

The following keyboard shortcuts are supported for the File Accumulator:

**Table 99** File Accumulator – Accessibility Keys

Key	Action
<b>Left side with items to be added to selected list</b>	
Down arrow	When on any node, select next node below current. Selection will not wrap.
Up arrow	When on any node, select next node above current. Selection will not wrap.
Page up	When on any node, move to last visible node on previous page, or, if there is no previous page, the first node on the current page.
Page down	When on any node, moves to first visible node on next page, or, if there is no next page, the last node on the current page.
Left arrow	When on any node, drill up to folder node (parent of current node). If already at root node, nothing happens.
Ctrl+Up/Down arrow	When on any node, allows navigation without losing selection.
Ctrl+Space	when on any node, select/deselect currently focused item.
Shift+Up/Down	When on any node, select/deselect sequential list of items.
Ctrl+A	When on any node, select all nodes.
Right arrow	When on a folder node, drill down into folder and present contents.
Right arrow	When on any node except folder node, add item to selected list.

Key	Action
<b>Right List with items in the selected list</b>	
Down arrow	When on any node, select next node below current. Selection will not wrap.
Up arrow	When on any node, select next node above current. Selection will not wrap.
Page up	When on any node, go to last visible node on previous page, or, if there is no previous page, the first node on the current page.
Page down	When on any node, go to first visible node on next page, or, if there is no next page, the last node on the current page.
Left arrow	When on any node, remove item from selected list.
<b>Move Up/Down arrow image to change the item's order in the list</b>	
Arrow Up/Down	Select the item to be moved.
Tab to Up/Down arrow image	Move item up or down.
Space bar	Activate to move item up/down.

## Accessibility for Explore

The following keyboard shortcuts are supported for Explore/Subheadings:

**Table 100** Explore – Accessibility Keys

Key	Action
<b>Explore Tree</b>	
Down arrow	When on any node, select next node below current. Selection will not wrap.
Up arrow	When on any node, select next node above current. Selection will not wrap.
Page up	When on any node, get to the last visible node on the previous page, or if there is no previous page, the first node on the current page.
Page down	When on any node, get to the first visible node on the next page, or, if there is no next page, the last node on the current page.
Right arrow	When on a folder node with plus icon, expand a node.
Left arrow	When on a folder node with plus icon, go up to next expanded folder
Right arrow	When on folder node with minus icon, go to next folder.
Left arrow	when on folder node with minus icon, collapse a node.
Arrow keys (left/ right/ bottom/top)	The built-in way to move around Explore module and access different cells and rows in a grid or tree view.

Key	Action
<b>Explore List</b>	
Down arrow	When on any node, select next node below current. Selection will not wrap.
Up arrow	When on any node, select next node above current. Selection will not wrap.
Page up	When on any node, get to the last visible node on the previous page, or, if there is no previous page, the first node on the current page.
Page down	When on any node, get to the first visible node on next page, or, if there is no next page, the last node on the current page.
Ctrl+Up/Down arrow	When on any node, allows navigation without losing selection.
Ctrl+Space	When on any node, select/deselect currently focused item.
Ctrl+A	When on any node, select all nodes.
Shift+Up/Down arrow	when on any node, select/deselect sequential list of items.
Enter key	When on a folder node, drill into the folder.
Enter key	when on any node except folder node, launch the item.
Arrow keys (left/ right/ bottom/top)	The built-in way to move around Explore module and access different cells and rows in a grid or tree view.

The following rules are applied when using the context menu key to display context menus in Explore:

- If the left pane of Explore has focus, one of the following occurs:
  - if mouse pointer is over the selected item, then context menu is displayed for the selected item
  - if mouse pointer is not over the selected item, no context menu is displayed
- If the right pane of Explore has focus, one of the following occurs:
  - if mouse pointer is over the selected item, the context menu for the selected item is displayed
  - if the mouse pointer is over a blank area, for example not pointing to any items, the context menu of the selected item in the left pane is displayed
  - if the mouse location is over any other area, the context menu is not displayed

## Accessibility for EPM Workspace Pages

The following keyboard shortcuts are supported by the content area in EPM Workspace pages:

**Table 101** Workspace Pages – Accessibility keys

Keys	Action
Arrow keys	Used to Navigate between layout areas on a Workspace page. <b>Note:</b> If you want to use the arrow keys to move among the layout areas, make sure you are on a layout area and not in the inner frame of the layout area. To get out of the inner frame of the layout area, press Shift+Tab. To get out of the inner frame of Recently Opened, Workspace Pages, or Quick Links portlet on the Home Page, press Shift+Tab twice.
a	If focus is on a layout area, then pressing this key adds the selected content in the Content Browser to the layout area.
Ctrl+a	If focus is on the Content Browser, then pressing this key combination adds the selected content in the left pane as content to the page.
r	If focus is on a layout area, then pressing this key triggers the remove action on the layout area.
e	If focus is on a layout area, then pressing this key triggers the edit action on the layout area if the edit action is available for the layout area.
l	If focus is on a layout area, then pressing this key triggers the launch action on the layout area if the launch action is available for the layout area.
m	If focus is on a layout area, and the layout area is not maximized, then pressing this key triggers the maximize action on the layout area or else it triggers the restore action on the layout area. The maximize option must be enabled on the layout area.
Tab/Shift+Tab	Used to navigate to the layout area content (inner frame) or out of the inner frame and return focus back to layout area itself.

## Accessibility for EPM Workspace Template Selector Dialog

The following table provides keyboard shortcuts for the Template Selector Dialog:

**Table 102** Template Selector Dialog – Accessibility key

Key	Action
Up/Down/Left/Right	1. Up/Down/Left/Right arrow to navigate and select item in the group.

## Accessibility for Foundation Services

The following table provides keyboard shortcuts for Oracle's Hyperion® Foundation Services:

**Table 103** Foundation Services – Shortcut Keys

Keys	Action
Tab	Apart from its standard function, this key is used to get to the right pane from folders' list.

Keys	Action
Space	Apart from its standard function, this key can be used to switch between tabs in various Properties dialogs. It can also be used to sort items in Users, Groups, Roles' table of Properties dialog on Permissions tab.
Ctrl+<column_number>	This key combination can be used to sort items in Selected table of Properties dialog on Permissions tab.
Enter	Apart from its standard function, this key can be used to switch between tabs in Import dialogs.
<column_number>	Press the corresponding table column number to sort the outputs in Jobs' Output Collection.
Keyboard context menu button	Show context menu for the item over which the mouse cursor is placed (but not for the one which is focused).

## Accessibility for Interactive Reporting

The following table provides keyboard shortcuts for Interactive Reporting.

**Note:** EPM Workspace keyboard navigation is only available with accessibility features enabled. You can disable keyboard navigation when the screen reader setting is not active. To disable keyboard navigation, add the parameter: `DISABLE_KEYBOARD_NAV_IN_NON_508_MODE=true` to the Hyperion Interactive Reporting Service (BI) in Dynamic Service properties in the Services section of EPM Workspace. For more information see "General Services Configuration Properties" in the *Oracle Enterprise Performance Management Workspace, Fusion Edition, Administrator's Guide*.

**Table 104** Interactive Reporting – Shortcut Keys

Keys	Action
Ctrl+F6 followed by Tab	If focus is on whole content pane of an Oracle's Hyperion® Interactive Reporting file opened in Oracle Enterprise Performance Management Workspace, Fusion Edition, use these keys to navigate into the section and its elements.
Ctrl+Shift+Enter	Display tool tip and read the status bar.
Shift+F10	Open and close context menu.
Arrow keys	Navigate through context menu.
<b>Results/Table Section</b>	
Arrow keys or Tab	Navigate through the individual cells.
Shift+Arrow keys	Used to scroll, if the focus is on whole content pane of Results/Table sections.
Ctrl+Alt+Arrow keys	Select two or more columns.
Ctrl+Space	Add/remove current column to the selection.

Keys	Action
<b>Pivot Section</b>	
Arrow keys or Tab	Navigate through the individual cells.
<b>Chart Section</b>	
Ctrl+Shift	Apart from its standard function, these keys can be used for working with Chart, where there is a two-layer navigation: all the elements are placed in groups (for example, one group includes axis labels, the other one includes pie slices). The user goes between the groups by pressing Tab, and may drill down into particular group and start tabbing in it by pressing Ctrl+Shift.
<b>Report Section</b>	
Ctrl+Shift	Visit individual elements of Embedded Objects.
Alt+I	Go through the tables within one Report page.
<b>Dashboard Section</b>	
Ctrl+Shift	Visit individual elements of Embedded Objects.
<b>Query/CubeQuery Section</b>	
Ctrl+Shift+Arrow keys or Tab	Navigate through the individual cells of CubeQuery table.

## Accessibility for Online Help

The table that follows lists the keyboard shortcuts for online help.

**Table 105** Online Help – Keyboard Shortcuts

Shortcut	Description
Ctrl+Shift+1	Open and move focus to the Contents tab.
Ctrl+Shift+2	Open and move focus to the Index tab.
Ctrl+Shift+3	Open and move focus to the Search tab.
Ctrl+Shift+4	Move focus to the content frame, which is the frame that contains help topics.



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# Glossary

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! See bang character.

**#MISSING** See missing data.

**access permissions** A set of operations that a user can perform on a resource.

**accessor** Input and output data specifications for data-mining algorithms.

**account blocking** The process by which accounts accept input data in the consolidated file. Blocked accounts do not receive their value through the additive consolidation process.

**account eliminations** Accounts which have their values set to zero in the consolidated file during consolidation.

**account type** A property that determines how an account's value flows over time and its sign behavior. Account type options can include expense, income, asset, liability, and equity.

**accountability map** A visual, hierarchical representation of the responsibility, reporting, and dependency structure of the accountability teams (also known as critical business areas) in an organization.

**active service** A service whose Run Type is set to Start rather than to Hold.

**active-active high availability system** A system in which all the available members can service requests, and no member is idle. An active-active system generally provides more scalability options than an active-passive system. Contrast with active-passive high availability system.

**active-passive high availability system** A system with active members, which are always servicing requests, and passive members that are activated only when an active member fails. Contrast with active-active high availability system.

**activity-level authorization** Defines user access to applications and the types of activities they can perform on applications, independent of the data that will be operated on.

**ad hoc report** An online analytical query that an end user creates dynamically.

**adapter** Software that enables a program to integrate with data and metadata from target and source systems.

**adaptive states** Interactive Reporting Web Client level of permission.

**adjustment** See journal entry.

**Advanced Relational Access** The integration of a relational database with an Essbase multidimensional database so that all data remains in the relational database and is mapped to summary-level data in the Essbase database.

**agent** An Essbase server process that starts and stops applications and databases, manages connections from users, and handles user-access security. The agent is referred to as ESSBASE.EXE.

**aggregate cell** A cell comprising several cells. For example, a data cell that uses Children(Year) expands to four cells containing Quarter 1, Quarter 2, Quarter 3, and Quarter 4 data.

**aggregate function** A type of function, such as sum or calculation of an average, that summarizes or performs analysis on data.

**aggregate limit** A limit placed on an aggregated request line item or aggregated metatopic item.

**aggregate storage database** The database storage model designed to support large-scale, sparsely distributed data which is categorized into many, potentially large dimensions. Upper level members and formulas are dynamically calculated, and selected data values are aggregated and stored, typically with improvements in overall aggregation time.

**aggregate view** A collection of aggregate cells based on the levels of the members within each dimension. To reduce calculation time, values are pre-aggregated and stored as aggregate views. Retrievals start from aggregate view totals and add up from there.

**aggregation** The process of rolling up and storing values in an aggregate storage database; the stored result of the aggregation process.

**aggregation script** In aggregate storage databases only, a file that defines a selection of aggregate views to be built into an aggregation.

**alias table** A table that contains alternate names for members.

**alternate hierarchy** A hierarchy of shared members. An alternate hierarchy is based upon an existing hierarchy in a database outline, but has alternate levels in the dimension. An alternate hierarchy allows the same data to be seen from different points of view.

**ancestor** A branch member that has members below it. For example, the members Qtr2 and 2006 are ancestors of the member April.

**appender** A Log4j term for destination.

**application** 1) A software program designed to run a specific task or group of tasks such as a spreadsheet program or database management system. 2) A related set of dimensions and dimension members that are used to meet a specific set of analytical requirements, reporting requirements, or both.

**application administrator** A person responsible for setting up, configuring, maintaining, and controlling an application. Has all application privileges and data access permissions.

**application currency** The default reporting currency for the application.

**Application Migration Utility** A command-line utility for migrating applications and artifacts.

**application server cluster** A loosely joined group of application servers running simultaneously, working together for reliability and scalability, and appearing to users as one application server instance. See also vertical application cluster and horizontal application cluster.

**area** A predefined set of members and values that makes up a partition.

**arithmetic data load** A data load that performs operations on values in the database, such as adding 10 to each value.

**artifact** An individual application or repository item; for example, scripts, forms, rules files, Interactive Reporting documents, and financial reports. Also known as an object.

**assemblies** Installation files for EPM System products or components.

**asset account** An account type that stores values that represent a company's assets.

**assignment** The association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow.

**attribute** A characteristic of a dimension member. For example, Employee dimension members may have attributes of Name, Age, or Address. Product dimension members can have several attributes, such as a size and flavor.

**attribute association** A relationship in a database outline whereby a member in an attribute dimension describes a characteristic of a member of its base dimension. For example, if product 100-10 has a grape flavor, the product 100-10 has the Flavor attribute association of grape. Thus, the 100-10 member of the Product dimension is associated with the Grape member of the Flavor attribute dimension.

**Attribute Calculations dimension** A system-defined dimension that performs these calculation operations on groups of members: Sum, Count, Avg, Min, and Max. This dimension is calculated dynamically and is not visible in the database outline. For example, using the Avg member, you can calculate the average sales value for Red products in New York in January.

**attribute dimension** A type of dimension that enables analysis based on the attributes or qualities of dimension members.

**attribute reporting** A reporting process based on the attributes of the base dimension members. See also base dimension.

**attribute type** A text, numeric, Boolean, date, or linked-attribute type that enables different functions for grouping, selecting, or calculating data. For example, because the Ounces attribute dimension has the type numeric, the number of ounces specified as the attribute of each product can be used to calculate the profit per ounce for that product.

**authentication** Verification of identity as a security measure. Authentication is typically based on a user name and password. Passwords and digital signatures are forms of authentication.

**authentication service** A core service that manages one authentication system.

**auto-reversing journal** A journal for entering adjustments that you want to reverse in the next period.

**automated stage** A stage that does not require human intervention; for example, a data load.

**axis** (1) A straight line that passes through a graphic used for measurement and categorization. (2) A report aspect used to arrange and relate multidimensional data, such as filters, pages, rows, and columns. For example, for a data query in Simple Basic, an axis can define columns for values for Qtr1, Qtr2, Qtr3, and Qtr4. Row data would be retrieved with totals in the following hierarchy: Market, Product.

**backup** A duplicate copy of an application instance.

**balance account** An account type that stores unsigned values that relate to a particular time.

**balanced journal** A journal in which the total debits equal the total credits.

**bang character (!)** A character that terminates a series of report commands and requests information from the database. A report script must be terminated with a bang character; several bang characters can be used within a report script.

**base currency** The currency in which daily business transactions are performed.

**base dimension** A standard dimension that is associated with one or more attribute dimensions. For example, assuming products have flavors, the Product dimension is the base dimension for the Flavors attribute dimension.

**base entity** An entity at the bottom of the organization structure that does not own other entities.

**batch calculation** Any calculation on a database that is done in batch; for example, a calculation script or a full database calculation. Dynamic calculations are not considered to be batch calculations.

**batch file** An operating system file that can call multiple ESSCMD scripts and run multiple sessions of ESSCMD. On Windows-based systems, batch files have BAT file extensions. On UNIX, batch files are written as a shell script.

**Batch Loader** An FDM component that enables the processing of multiple files.

**batch POV** A collection of all dimensions on the user POV of every report and book in the batch. While scheduling the batch, you can set the members selected on the batch POV.

**batch processing mode** A method of using ESSCMD to write a batch or script file that can be used to automate routine server maintenance and diagnostic tasks. ESSCMD script files can execute multiple commands and can be run from the operating system command line or from within operating system batch files. Batch files can be used to call multiple ESSCMD scripts or run multiple instances of ESSCMD.

**block** The primary storage unit which is a multidimensional array representing the cells of all dense dimensions.

**block storage database** The Essbase database storage model categorizing and storing data based on the sparsity of data values defined in sparse dimensions. Data values are stored in blocks, which exist only for sparse dimension members for which there are values.

**Blocked Account** An account that you do not want calculated in the consolidated file because you want to enter it manually.

**book** 1) In Financial Reporting, a container that holds a group of similar documents. Books may specify dimension sections or dimension changes. 2) In Data Relationship Management, a collection of exports that can be run together as a group. Export results can be combined together or output separately.

**book POV** The dimension members for which a book is run.

**bookmark** A link to a reporting document or a Web site, displayed on a personal page of a user. The types of bookmarks are My Bookmarks and image bookmarks.

**bounding rectangle** The required perimeter that encapsulates the Interactive Reporting document content when embedding Interactive Reporting document sections in a personal page, specified in pixels for height and width or row per page.

**broadcast message** A simple text message sent by an administrator to a user who is logged on to a Planning application. The message details information such as system availability, notification of application refresh, or application backups.

**build method** A method used to modify database outlines. Choice of a build method is based on the format of data in data source files.

**business process** A set of activities that collectively accomplish a business objective.

**business rules** Logical expressions or formulas that are created within an application to produce a desired set of resulting values.

**cache** A buffer in memory that holds data temporarily.

**calc script** A set of commands that define how a database is consolidated or aggregated. A calculation script may also contain commands that specify allocation and other calculation rules separate from the consolidation process.

**Calculated Accounts** Accounts with formulas that you cannot alter. These formulas are fixed to maintain the accounting integrity of the model that you are building. For example, the formula for Net Income, a Calculated Account, is modeled into Strategic Finance and cannot be changed in historical or forecast periods.

**calculated member in MaxL DML** A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

**Calculation Manager** A module of Enterprise Performance Management Architecture (EPMA) that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment. c

**calculation status** A consolidation status that indicates that some values or formula calculations have changed. You must reconsolidate to get the correct values for the affected entity.

**calendar** User-defined time periods and their relationship to each other. Q1, Q2, Q3, and Q4 comprise a calendar or fiscal year.

**cascade** The process of creating multiple reports for a subset of member values.

**Catalog pane** An area that displays a list of elements available to the active section. If Query is the active section, a list of database tables is displayed. If Pivot is the active section, a list of results columns is displayed. If Dashboard is the active section, a list of embeddable sections, graphic tools, and control tools are displayed.

**categories** Groupings by which data is organized. For example, Month.

**cause and effect map** A map that depicts how the elements that form your corporate strategy relate and how they work together to meet your organization's strategic goals. A Cause and Effect map tab is automatically created for each Strategy map.

**CDF** See custom-defined function.

**CDM** See custom-defined macro.

**cell** (1) The data value at the intersection of dimensions in a multidimensional database; the intersection of a row and a column in a worksheet. (2) A logical group of nodes belonging to one administrative domain.

**cell note** A text annotation for a cell in an Essbase database. Cell notes are a type of LRO.

**CHANGED status** Consolidation status that indicates data for an entity has changed.

**chart template** A template that defines the metrics to display in Workspace charts.

**child** A member with a parent above it in the database outline.

**choice list** A list of members that a report designer can specify for each dimension when defining the report's point of view. A user who wants to change the point of view for a dimension that uses a choice list can select only the members specified in that defined member list or those members that meet the criteria defined in the function for the dynamic list.

**clean block** A data block in which the database is fully calculated, if a calculation script calculates all dimensions at once, or if the SET CLEARUPDATESTATUS command is used in a calculation script.

**cluster** An array of servers or databases that behave as a single resource which share task loads and provide failover support; eliminates one server or database as a single point of failure in a system.

**cluster interconnect** A private link used by a hardware cluster for heartbeat information, to detect node failure.

**cluster services** Software that manages cluster member operations as a system. With cluster services, you can define a set of resources and services to monitor through a heartbeat mechanism between cluster members and to move these resources and services to a different cluster member as efficiently and transparently as possible.

**clustered bar charts** Charts in which categories are viewed side-by-side; used only with vertical bar charts.

**code page** A mapping of bit combinations to a set of text characters. Different code pages support different sets of characters. Each computer contains a code page setting for the character set requirements of the language of the computer user. In the context of this document, code pages map characters to bit combinations for non-Unicode encodings. See also encoding.

**column** In Data Relationship Management, a field of data associated with an import source or the results of a query, compare, validation, or export.

**committed access** An Essbase Kernel Isolation Level setting that affects how Essbase handles transactions. Under committed access, concurrent transactions hold long-term write locks and yield predictable results.

**computed item** A virtual column (as opposed to a column that is physically stored in the database or cube) that can be calculated by the database during a query, or by Interactive Reporting Studio in the Results section. Computed items are calculations of data based on functions, data items, and operators provided in the dialog box and can be included in reports or reused to calculate other data.

**connection file** See Interactive Reporting connection file (.oce)

**consolidated file (Parent)** A file into which all of the business unit files are consolidated; contains the definition of the consolidation.

**consolidation** The process of aggregating data from dependent entities to parent entities. For example, if the dimension Year consists of the members Qtr1, Qtr2, Qtr3, and Qtr4, its consolidation is Year.

**consolidation file (\*.cns)** A graphical interface that enables you to add, delete, or move Strategic Finance files in the consolidation process using either a Chart or Tree view. It also enables you to define and modify the consolidation.

**consolidation rule** The rule that is executed during the consolidation of the node of the hierarchy. This rule can contain customer-specific formulas appropriate for the correct consolidation of parent balances. Elimination processing can be controlled within these rules.

**content** Information stored in the repository for any type of file.

**content browser** A component that enables users to browse and select content to be placed on a Workspace Page.

**context variable** A variable that is defined for a particular task flow to identify the context of the taskflow instance.

**contribution** The value added to a parent from a child entity. Each child has a contribution to its parent.

**controls groups** Groupings used in FDM to maintain and organize certification and assessment information, especially helpful for meeting Sarbanes-Oxley requirements.

**conversion rate** See exchange rate.

**cookie** A segment of data placed on your computer by a Web site.

**correlated subqueries** Subqueries that are evaluated once for every row in the parent query; created by joining a topic item in the subquery with a topic in the parent query.

**critical business area (CBA)** An individual or a group organized into a division, region, plant, cost center, profit center, project team, or process; also called accountability team or business area.

**critical success factor (CSF)** A capability that must be established and sustained to achieve a strategic objective; owned by a strategic objective or a critical process and is a parent to one or more actions.

**crosstab reporting** Reporting that categorizes and summarizes data in table format. The table cells contain summaries of the data that fit within the intersecting categories. For example, a crosstab report of product sales information could show size attributes, such as Small and Large, as column headings and color attributes, such as Blue and Yellow, as row headings. The cell in the table where Large and Blue intersect could contain the total sales of all Blue products that are sized Large.

**cube** A block of data that contains three or more dimensions. An Essbase database is a cube.

**cube deployment** In Essbase Studio, the process of setting load options for a model to build an outline and load data into an Essbase application and database.

**cube schema** In Essbase Studio, the metadata elements, such as measures and hierarchies, representing the logical model of a cube.

**currency conversion** A process that converts currency values in a database from one currency into another. For example, to convert one U. S. dollar into the European euro, the exchange rate (for example, 0.923702) is multiplied by the dollar ( $1 * 0.923702$ ). After conversion, the European euro amount is .92.

**Currency Overrides** A feature allowing the selected input method for any input period to be overridden to enable input of that period's value as Default Currency/Items. To override the input method, enter a pound sign (#) before or after the number.

**currency partition** A dimension type that separates local currency members from a base currency, as defined in an application. Identifies currency types, such as Actual, Budget, and Forecast.

**custom calendar** Any calendar created by an administrator.

**custom dimension** A dimension created and defined by users. Channel, product, department, project, or region could be custom dimensions.

**custom property** A property of a dimension or dimension member that is created by a user.

**custom report** A complex report from the Design Report module, composed of any combination of components.

**custom-defined function (CDF)** Essbase calculation functions developed in Java and added to the standard Essbase calculation scripting language using MaxL. See also custom-defined macro.

**custom-defined macro (CDM)** Essbase macros written with Essbase calculator functions and special macro functions. Custom-defined macros use an internal Essbase macro language that enables the combination of calculation functions and they operate on multiple input parameters. See also custom-defined function.

**cycle through** Perform multiple passes through a database while calculating it.

**dashboard** A collection of metrics and indicators that provide an interactive summary of your business. Dashboards enable you to build and deploy analytic applications.

**data cache** A buffer in memory that holds uncompressed data blocks.

**data cell** See cell.

**data file cache** A buffer in memory that holds compressed data (PAG) files.

**data form** A grid display that enables users to enter data into the database from an interface such as a Web browser, and to view and analyze data or related text. Certain dimension member values are fixed, giving users a specific view into the data.

**data function** Function that computes aggregate values, including averages, maximums, counts, and other statistics that summarize groupings of data.

**data load location** In FDM, a reporting unit responsible for submitting source data into the target system. Typically, one FDM data load location exists for each source file loaded to the target system.



**data load rules** A set of criteria that determines how to load data from a text-based file, a spreadsheet, or a relational data set into a database.

**data lock** A feature that prevents changes to data according to specified criteria, such as a period or scenario.

**data mining** The process of searching through an Essbase database for hidden relationships and patterns in a large amount of data.

**data model** A representation of a subset of database tables.

**data value** See cell.

**database connection** A file that stores definitions and properties used to connect to data sources and enables database references to be portable and widely used.

**date measure** In Essbase, a member tagged as Date in the dimension where measures are represented. The cell values are displayed as formatted dates. Dates as measures can be useful for analysis types that are difficult to represent using the Time dimension. For example, an application may need to track acquisition dates for a series of capital assets, but the acquisition dates span too large a period to allow for feasible Time dimension modeling. See also typed measure.

**Default Currency Units** The unit scale of data. For example, If you select to define your analysis in thousands and enter 10, this unit is interpreted as 10,000.

**dense dimension** In block storage databases, a dimension likely to contain data for every combination of dimension members. For example, time dimensions are often dense because they can contain all combinations of all members. Contrast with sparse dimension.

**dependent entity** An entity that is owned by another entity in the organization.

**derived text measure** In Essbase Studio, a text measure whose values are governed by a predefined rule expressed as a range. For example, a derived text measure, called "Sales Performance Index," based on a measure Sales, could consist of the values "High," "Medium," and "Low." This derived text measure is defined to display "High," "Medium," and "Low" depending on the range in which the corresponding sales values fall. See also text measure.

**descendant** Any member below a parent in the database outline. In a dimension that includes years, quarters, and months, the members Qtr2 and April are descendants of the member Year.

**Design Report** An interface in Web Analysis Studio for designing custom reports, from a library of components.

**destination** 1) In Business Rules, a block of the database where calculated values are stored; 2) In Profitability and Cost Management, the association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow.

**destination currency** The currency to which balances are converted. You enter exchange rates and convert from the source currency to the destination currency. For example, when you convert from EUR to USD, the destination currency is USD.

**detail chart** A chart that provides the detailed information that you see in a Summary chart. Detail charts appear in the Investigate Section in columns below the Summary charts. If the Summary chart shows a Pie chart, then the Detail charts below represent each piece of the pie.

**dimension** A data category used to organize business data for the retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. For example, a Year dimension often includes members for each time period, such as quarters and months.

**dimension build** The process of adding dimensions and members to an Essbase outline.

**dimension build rules** Specifications, similar to data load rules, that Essbase uses to modify an outline. The modification is based on data in an external data source file.

**dimension tab** In the Pivot section, the tab that enables you to pivot data between rows and columns.

**dimension table** (1) A table that includes numerous attributes about a specific business process. (2) In Essbase Integration Services, a container in the OLAP model for one or more relational tables that define a potential dimension in Essbase.

**dimension type** A dimension property that enables the use of predefined functionality. Dimensions tagged as time have a predefined calendar functionality.

**dimensionality** In MaxL DML, the represented dimensions (and the order in which they are represented) in a set. For example, the following set consists of two tuples of the same dimensionality, because they both reflect the dimensions (Region, Year): { (West, Feb), (East, Mar) }

**direct rate** A currency rate that you enter in the exchange-rate table. The direct rate is used for currency conversion. For example, to convert balances from JPY to USD, in the exchange-rate table, enter a rate for the period/scenario where the source currency is JPY and the destination currency is USD.

**dirty block** A data block containing cells that have been changed since the last calculation. Upper-level blocks are marked as dirty if their child blocks are dirty (that is, if they have been updated).

**display type** One of three Web Analysis formats saved to the repository: spreadsheet, chart, and pinboard.

**dog-ear** The flipped page corner in the upper-right corner of the chart header area.

**domain** In data mining, a variable representing a range of navigation within data.

**drill-down** Navigation through the query result set using the dimensional hierarchy. Drilling down moves the user perspective from aggregated data to detail. For example, drilling down can reveal hierarchical relationships between years and quarters or quarters and months.

**drill-through** The navigation from a value in one data source to corresponding data in another source.

**driver** In Profitability and Cost Management, an allocation method that describes the mathematical relationship between the sources that use the driver and the destinations to which those sources allocate cost or revenue. For Business Modeling, see also cost driver and activity driver.

**duplicate alias name** A name that occurs more than once in an alias table and can be associated with more than one member in a database outline. Duplicate alias names can be used with duplicate member outlines only.

**duplicate member name** Multiple occurrences of a member name in a database, with each occurrence representing a different member. For example, a database has two members named New York. One member represents New York state and the other member represents New York city.

**duplicate member outline** A database outline containing duplicate member names.

**Dynamic Calc and Store members** Members in a block storage outline that Essbase calculates only upon the first retrieval of the value. Essbase then stores the calculated value in the database. Subsequent retrievals do not require calculating.

**Dynamic Calc members** Members in a block storage outline that Essbase calculates only at retrieval time. Essbase discards calculated values after completing the retrieval request.

**dynamic calculation** In Essbase, a calculation that occurs only when you retrieve data on a member that is tagged as Dynamic Calc or Dynamic Calc and Store. The member's values are calculated at retrieval time instead of being precalculated during batch calculation.

**dynamic hierarchy** In aggregate storage database outlines only, a hierarchy in which members are calculated at retrieval time.

**dynamic member list** A system-created named member set that is based on user-defined criteria. The list is refreshed automatically whenever it is referenced in the application. As dimension members are added and deleted, the list automatically reapplies the criteria to reflect the changes.

**dynamic reference** A pointer in the rules file to header records in a data source.

**dynamic report** A report containing data that is updated when you run the report.

**Dynamic Time Series** A process that performs period-to-date reporting in block storage databases.

**dynamic view account** An account type indicating that account values are calculated dynamically from the data that is displayed.

**Eliminated Account** An account that does not appear in the consolidated file.

**elimination** The process of zeroing out (eliminating) transactions between entities within an organization.

**employee** A user responsible for, or associated with, specific business objects. Employees need not work for an organization; for example, they can be consultants. Employees must be associated with user accounts, for authorization purposes.



**encoding** A method for mapping bit combinations to characters for creating, storing, and displaying text. Each encoding has a name; for example, UTF-8. Within an encoding, each character maps to a specific bit combination; for example, in UTF-8, uppercase A maps to HEX41. See also code page, locale.

**ending period** A period enabling you to adjust the date range in a chart. For example, an ending period of "month" produces a chart showing information through the end of the current month.

**Enterprise View** An Administration Services feature that enables management of the Essbase environment from a graphical tree view. From Enterprise View, you can operate directly on Essbase artifacts.

**entity** A dimension representing organizational units. Examples: divisions, subsidiaries, plants, regions, products, or other financial reporting units.

**EPM Oracle home** A subdirectory of Middleware home containing the files required by EPM System products. The EPM Oracle home location is specified during installation with EPM System Installer.

**Equity Beta** The riskiness of a stock, measured by the variance between its return and the market return, indicated by an index called "beta." For example, if a stock's return normally moves up or down 1.2% when the market moves up or down 1%, the stock has a beta of 1.2.

**essbase.cfg** An optional configuration file for Essbase. Administrators may edit this file to customize Essbase Server functionality. Some configuration settings may also be used with Essbase clients to override Essbase Server settings.

**EssCell** A function entered into a cell in Essbase Spreadsheet Add-in to retrieve a value representing an intersection of specific Essbase database members.

**ESSCMD** A command-line interface for performing Essbase operations interactively or through batch script files.

**ESSLANG** The Essbase environment variable that defines the encoding used to interpret text characters. See also encoding.

**ESSMSH** See MaxL Shell.

**exceptions** Values that satisfy predefined conditions. You can define formatting indicators or notify subscribing users when exceptions are generated.

**exchange rate type** An identifier for an exchange rate. Different rate types are used because there may be multiple rates for a period and year. Users traditionally define rates at period end for the average rate of the period and for the end of the period. Additional rate types are historical rates, budget rates, forecast rates, and so on. A rate type applies to a specific time.

**expense account** An account that stores periodic and year-to-date values that decrease net worth if they are positive.

**Extensible Markup Language (XML)** A language comprising a set of tags used to assign attributes to data that can be interpreted between applications according to a schema.

**external authentication** Logging on to Oracle EPM System products with user information stored outside the application. The user account is maintained by the EPM System, but password administration and user authentication are performed by an external service, using a corporate directory such as Oracle Internet Directory (OID) or Microsoft Active Directory (MSAD).

**externally triggered events** Non-time-based events for scheduling job runs.

**Extract, Transform, and Load (ETL)** Data-source-specific programs for extracting data and migrating it to applications.

**extraction command** An Essbase reporting command that handles the selection, orientation, grouping, and ordering of raw data extracted from a database; begins with the less-than (<) character.

**fact table** The central table in a star join schema, characterized by a foreign key and elements drawn from a dimension table. This table typically contains numeric data that can be related to all other tables in the schema.

**failover** The ability to switch automatically to a redundant standby database, server, or network if the primary database, server, or network fails or is shut down. A system that is clustered for failover provides high availability and fault tolerance through server redundancy and fault-tolerant hardware, such as shared disks.

**Favorites gadget** A gadget that contains links to Reporting and Analysis documents and URLs. See also gadget.

**file delimiter** A character, such as a comma or tab, that separates fields in a data source.

**filter** A constraint on data sets that restricts values to specific criteria; for example, to exclude certain tables, metadata, or values, or to control access.

**flow account** An unsigned account that stores periodic and year-to-date values.

**footer** Text or images at the bottom of report pages, containing dynamic functions or static text such as page numbers, dates, logos, titles or file names, and author names.

**format string** 1) In Essbase, a method for transforming the way cell values are displayed. 2) In FDM, a parameter of a Format or Formatted Date derived property that indicates the format in which a property value should be returned.

**formula** In Data Relationship Management, business logic used by a derived property to dynamically calculate a property value.

**frame** An area on the desktop. Two main areas: the navigation and workspace frames.

**free-form grid** An object for presenting, entering, and integrating data from different sources for dynamic calculations.

**free-form reporting** Creating reports by entering dimension members or report script commands in worksheets.

**function** In Data Relationship Management, a syntactic element of a derived property formula that accepts parameters and returns dynamic values.

**gadget** A simple, specialized, lightweight application that provides easy viewing of EPM content and enables access to core Reporting and Analysis functionality.

**geneology data** Additional data that is optionally generated after allocation calculations. This data enables reporting on all cost or revenue flows from start to finish through all allocation steps.

**generation** A layer in a hierarchical tree structure that defines member relationships in a database. Generations are ordered incrementally from the top member of the dimension (generation 1) down to the child members. Use the unique generation name to identify a layer in the hierarchical tree structure.

**generic jobs** Non-SQR Production Reporting or non-Interactive Reporting jobs.

**global report command** A command in a running report script that is effective until it is replaced by another global command or the file ends.

**grid POV** A means for specifying dimension members on a grid without placing dimensions in rows, columns, or page intersections. A report designer can set POV values at the grid level, preventing user POVs from affecting the grid. If a dimension has one grid value, you put the dimension into the grid POV instead of the row, column, or page.

**group** A container for assigning similar access permissions to multiple users.

**GUI** Graphical user interface

**hardware cluster** a collection of computers that provides a single view of network services (for example, an IP address) or application services (such as databases and Web servers) to clients of these services. Each node in a hardware cluster is a standalone server that runs its own processes. These processes can communicate with one another to form what looks like a single system that cooperatively provides applications, system resources, and data to users.

**high availability** A system attribute that enables an application to continue to provide services in the presence of failures. This is achieved through removal of single points of failure, with fault-tolerant hardware, as well as server clusters; if one server fails, processing requests are routed to another server.

**Historical Average** An average for an account over a number of historical periods.

**holding company** An entity that is part of a legal entity group, with direct or indirect investments in all entities in the group.

**horizontal application server cluster** A cluster with application server instances on different machines.

**host** A server on which applications and services are installed.

**host properties** Properties pertaining to a host, or if the host has multiple Oracle EPM homes, to an Oracle EPM home.

**Hybrid Analysis** An analysis mapping low-level data stored in a relational database to summary-level data stored in Essbase, combining the mass scalability of relational systems with multidimensional data.

**hyperlink** A link to a file, a Web page, or an intranet HTML page.

**Hypertext Markup Language (HTML)** A programming language specifying how Web browsers display data.

**identity** A unique identification for a user or group in external authentication.

**image bookmarks** Graphic links to Web pages or repository items.

**IMPACTED status** A status that indicates changes in child entities consolidating into parent entities.

**implied share** A member with one or more children but only one that is consolidated, so the parent and child share a value.

**import format** In FDM, the definition of the structure of the source file that enables the loading of a source data file to an FDM data-load location.

**inactive group** A group for which an administrator has deactivated system access.

**INACTIVE status** A status that indicates entities deactivated from consolidation for the current period.

**inactive user** A user whose account was deactivated by an administrator.

**income account** An account storing periodic and year-to-date values that, if positive, increase net worth.

**index** (1) A method where Essbase uses sparse-data combinations to retrieve data in block storage databases. (2) The index file.

**index cache** A buffer containing index pages.

**index entry** A pointer to an intersection of sparse dimensions. Index entries point to data blocks on disk and use offsets to locate cells.

**index file** An Essbase file storing block storage data retrieval information, residing on disk, and containing index pages.

**index page** A subdivision in an index file. An index page contains pointers to data blocks.

**input data** Data loaded from a source rather than calculated.

**installation assemblies** Product installation files that plug in to EPM System Installer.

**integration** A process that is run to move data between Oracle's Hyperion applications using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and they enable the data movements to be grouped, ordered, and scheduled.

**intelligent calculation** A calculation method tracking updated data blocks since the last calculation.

**Interactive Reporting connection file (.oce)** Files encapsulating database connection information, including the database API (ODBC, SQL\*Net, and so on), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection (.oce) files.

**intercompany elimination** See elimination.

**intercompany matching** The process of comparing balances for pairs of intercompany accounts within an application. Intercompany receivables are compared to intercompany payables for matches. Matching accounts are used to eliminate intercompany transactions from an organization's consolidated totals.

**intercompany matching report** A report that compares intercompany account balances and indicates whether the accounts are in balance.

**interdimensional irrelevance** A situation in which a dimension does not intersect with other dimensions. Because the data in the dimension cannot be accessed from the nonintersecting dimensions, the nonintersecting dimensions are not relevant to that dimension.

**intersection** A unit of data representing the intersection of dimensions in a multidimensional database; also, a worksheet cell.

**intragage assignment** An assignment in the financial flow to an object within the same stage.

**introspection** A deep inspection of a data source to discover hierarchies based on the inherent relationships in the database. Contrast with scraping.

**Investigation** See drill-through.

**isolation level** An Essbase Kernel setting that determines the lock and commit behavior of database operations. Choices are: committed access and uncommitted access.

**iteration** A pass of the budget or planning cycle in which the same version of data is revised and promoted.

**Java application server cluster** An active-active application server cluster of Java Virtual Machines (JVMs).

**Java Database Connectivity (JDBC)** A client-server communication protocol used by Java-based clients and relational databases. The JDBC interface provides a call-level API for SQL-based database access.

**job output** Files or reports produced from running a job.

**jobs** Documents with special properties that can be launched to generate output. A job can contain Interactive Reporting, SQR Production Reporting, or generic documents.

**join** A link between two relational database tables or topics based on common content in a column or row. A join typically occurs between identical or similar items within different tables or topics. For example, a record in the Customer table is joined to a record in the Orders table because the Customer ID value is the same in each table.

**journal entry (JE)** A set of debit-credit adjustments to account balances for a scenario and period.

**JSP** Java Server Page.

**KeyContacts gadget** A gadget that contains a group of Smart Space users and provides access to Smart Space Collaborator. For example, you can have a KeyContacts gadget for your marketing team and another for your development team. See also gadget.

**latest** A spreadsheet keyword used to extract data values from the member defined as the latest time period.

**layer** (1) The horizontal location of members in a hierarchical structure, specified by generation (top down) or level (bottom up). (2) Position of objects relative to other objects. For example, in the Sample Basic database, Qtr1 and Qtr4 are in the same layer, so they are also in the same generation, but in a database with a ragged hierarchy, Qtr1 and Qtr4 might not be in same layer, though they are in the same generation.

**layout area** An area on a Workspace Page where content can be placed.

**legend box** A box containing labels that identify the data categories of a dimension.

**level** A layer in a hierarchical tree structure that defines database member relationships. Levels are ordered from the bottom dimension member (level 0) up to the parent members.

**level 0 block** A data block for combinations of sparse, level 0 members.

**level 0 member** A member that has no children.

**liability account** An account type that stores "point in time" balances of a company's liabilities. Examples: accrued expenses, accounts payable, and long-term debt.

**lifecycle management** The process of migrating an application, a repository, or individual artifacts across product environments.

**line item detail** The lowest level of detail in an account.

**lineage** The relationship between different metadata elements showing how one metadata element is derived from one or more other metadata elements, ultimately tracing the metadata element to its physical source. In Essbase Studio, a lineage viewer displays the relationships graphically. See also traceability.

**link** (1) A reference to a repository object. Links can reference folders, files, shortcuts, and other links. (2) In a taskflow, the point where the activity in one stage ends and another begins.

**link condition** A logical expression evaluated by the taskflow engine to determine the sequence of launching taskflow stages.

**linked data model** Documents that are linked to a master copy in a repository

**linked partition** A shared partition that enables you to use a data cell to link two databases. When a user clicks a linked cell in a worksheet, Essbase opens a new sheet displaying the dimensions in the linked database. The user can then drill down those dimensions.

**linked reporting object (LRO)** A cell-based link to an external file such as cell notes, URLs, or files with text, audio, video, or pictures. (Only cell notes are supported for Essbase LROs in Financial Reporting.) Contrast with local report object.

**load balancer** Hardware or software that directs the requests to individual application servers in a cluster and is the only point of entry into the system.

**load balancing** Distribution of requests across a group of servers, which helps to ensure optimal end user performance.

**local currency** An input currency type. When an input currency type is not specified, the local currency matches the entity's base currency.

**local report object** A report object that is not linked to a Financial Reporting report object in Explorer. Contrast with linked reporting object.

**local results** A data model's query results. Results can be used in local joins by dragging them into the data model. Local results are displayed in the catalog when requested.

**locale** A computer setting that specifies a location's language, currency and date formatting, data sort order, and the character set encoding used on the computer. Essbase uses only the encoding portion. See also encoding, ESSLANG.

**locale header record** A text record at the beginning of some non-Unicode-encoded text files, such as scripts, that identifies the encoding locale.

**location alias** A descriptor that identifies a data source. The location alias specifies a server, application, database, user name, and password. Location aliases are set by DBAs at the database level using Administration Services Console, ESSCMD, or the API.

**locked** A user-invoked process that prevents users and processes from modifying data.

**locked data model** A data model that cannot be modified by a user.

**LOCKED status** A consolidation status indicating that an entity contains data that cannot be modified.

**Log Analyzer** An Administration Services feature that enables filtering, searching, and analysis of Essbase logs.

**logic group** In FDM, one or more logic accounts generated after a source file is loaded into FDM. Logic accounts are calculated accounts derived from the source data.

**logical Web application** An aliased reference used to identify the internal host name, port, and context of a Web application. In a clustered or high-availability environment, this is the alias name that establishes a single internal reference for the distributed components. In EPM System, a nonclustered logical Web application defaults to the physical host running the Web application.

**LRO** See linked reporting object.

**managed server** An application server process running in its own Java Virtual Machine (JVM).

**manual stage** A stage that requires human intervention.

**Map File** A file that stores the definition for sending data to or retrieving data from an external database. Map files have different extensions (.mps to send data; .mpr to retrieve data).

**Map Navigator** A feature that displays your current position on a Strategy, Accountability, or Cause and Effect map, indicated by a red outline.

**Marginal Tax Rate** The rate used to calculate the after-tax cost of debt; represents the tax rate applied to the last earned income dollar (the rate from the highest tax bracket into which income falls) and includes federal, state, and local taxes. Based on current level of taxable income and tax bracket, you can predict marginal tax rate.

**Market Risk Premium** The additional rate of return paid over the risk-free rate to persuade investors to hold "riskier" investments than government securities. Calculated by subtracting the risk-free rate from the expected market return. These figures should closely model future market conditions.

**master data model** An independent data model that is referenced as a source by multiple queries. When used, "Locked Data Model" is displayed in the Query section's Content pane; the data model is linked to the master data model displayed in the Data Model section, which an administrator may hide.

**mathematical operator** A symbol that defines how data is calculated in formulas and outlines. Can be any of the standard mathematical or Boolean operators; for example, +, -, \*, /, and %.

**MaxL** The multidimensional database access language for Essbase, consisting of a data definition language (MaxL DDL) and a data manipulation language (MaxL DML). See also MaxL DDL, MaxL DML, and MaxL Shell

**MaxL DDL** The data definition language used by Essbase for batch or interactive system-administration tasks.

**MaxL DML** The data manipulation language used in Essbase for data query and extraction.

**MaxL Perl Module** A Perl module (essbase.pm) that is part of Essbase MaxL DDL. This module can be added to the Perl package to provide access to Essbase databases from Perl programs.

**MaxL Script Editor** A script-development environment in Administration Services Console. MaxL Script Editor is an alternative to using a text editor and the MaxL Shell for administering Essbase with MaxL scripts.

**MaxL Shell** An interface for passing MaxL statements to Essbase Server. The MaxL Shell executable file is located in the Essbase bin directory (UNIX: essmsh; Windows: essmsh.exe).

**MDX (multidimensional expression)** A language used for querying and calculation in multidimensional-compliant databases.

**measures** Numeric values in an OLAP database cube that are available for analysis. Measures are margin, cost of goods sold, unit sales, budget amount, and so on. See also fact table.

**member** A discrete component within a dimension. A member identifies and differentiates the organization of similar units. For example, a time dimension might include members Jan, Feb, and Qtr1.

**member list** A named system- or user-defined group that references members, functions, or member lists within a dimension.

**member load** In Essbase Integration Services, the process of adding dimensions and members (without data) to Essbase outlines.

**member selection report command** A type of Report Writer command that selects member ranges based on outline relationships, such as sibling, generation, and level.

**member-specific report command** A type of Report Writer formatting command that is executed as it is encountered in a report script. The command affects only its associated member and executes the format command before processing the member.

**merge** A data load option that clears values only from the accounts specified in the data load file and replaces them with values in the data load file.

**metadata** A set of data that defines and describes the properties and attributes of the data stored in a database or used by an application. Examples of metadata are dimension names, member names, properties, time periods, and security.

**metadata elements** Metadata derived from data sources and other metadata that is stored and cataloged for Essbase Studio use.

**metadata sampling** The process of retrieving a sample of members in a dimension in a drill-down operation.

**metadata security** Security set at the member level to restrict users from accessing certain outline members.

**metaoutline** In Essbase Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.

**Middleware home** A directory that includes the Oracle WebLogic Server home and can also include the EPM Oracle home and other Oracle homes. A Middleware home can reside on a local file system or on a remote shared disk that is accessible through NFS.

**migration audit report** A report generated from the migration log that provides tracking information for an application migration.



**migration definition file (.mdf)** A file that contains migration parameters for an application migration, enabling batch script processing.

**migration log** A log file that captures all application migration actions and messages.

**migration snapshot** A snapshot of an application migration that is captured in the migration log.

**MIME Type** An attribute that describes the data format of an item, so that the system knows which application should open the object. A file's MIME (Multipurpose Internet Mail Extension) type is determined by the file extension or HTTP header. Plug-ins tell browsers which MIME types they support and which file extensions correspond to each MIME type.

**mining attribute** In data mining, a class of values used as a factor in analysis of a set of data.

**minireport** A report component that includes layout, content, hyperlinks, and the query or queries to load the report. Each report can include one or more minireports.

**minischema** A graphical representation of a subset of tables from a data source that represents a data modeling context.

**missing data (#MISSING)** A marker indicating that data in the labeled location does not exist, contains no value, or was never entered or loaded. For example, missing data exists when an account contains data for a previous or future period but not for the current period.

**model** 1) In data mining, a collection of an algorithm's findings about examined data. A model can be applied against a wider data set to generate useful information about that data. 2) A file or content string containing an application-specific representation of data. Models are the basic data managed by Shared Services, of two major types: dimensional and nondimensional application objects. 3) In Business Modeling, a network of boxes connected to represent and calculate the operational and financial flow through the area being examined.

**multidimensional database** A method of organizing, storing, and referencing data through three or more dimensions. An individual value is the intersection point for a set of dimensions. Contrast with relational database.

**Multiload** An FDM feature that allows the simultaneous loading of multiple periods, categories, and locations.

**My Workspace Page** Customizable Workspace Pages created by users. They are marked specially so that they can be easily accessed from one single place without having to navigate the repository.

**named set** In MaxL DML, a set with its logic defined in the optional WITH section of a MaxL DML query. The named set can be referenced multiple times in the query.

**native authentication** The process of authenticating a user name and password from within the server or application.

**nested column headings** A report column heading format that displays data from multiple dimensions. For example, a column heading that contains Year and Scenario members is a nested column. The nested column heading shows Q1 (from the Year dimension) in the top line of the heading, qualified by Actual and Budget (from the Scenario dimension) in the bottom line of the heading.

**NO DATA status** A consolidation status indicating that this entity contains no data for the specified period and account.

**non-dimensional model** A Shared Services model type that includes application objects such as security files, member lists, calculation scripts, and Web forms.

**non-unique member name** See duplicate member name.

**null value** A value that is absent of data. Null values are not equal to zero.

**numeric attribute range** A feature used to associate a base dimension member that has a discrete numeric value with an attribute that represents a value range. For example, to classify customers by age, an Age Group attribute dimension can contain members for the following age ranges: 0-20, 21-40, 41-60, and 61-80. Each Customer dimension member can be associated with an Age Group range. Data can be retrieved based on the age ranges rather than on individual age values.

**ODBC** Open Database Connectivity. A database access method used from any application regardless of how the database management system (DBMS) processes the information.

**OK status** A consolidation status indicating that an entity has already been consolidated, and that data has not changed below it in the organization structure.

**OLAP Metadata Catalog** In Essbase Integration Services, a relational database containing metadata describing the nature, source, location, and type of data that is pulled from the relational data source.

**OLAP model** In Essbase Integration Services, a logical model (star schema) that is created from tables and columns in a relational database. The OLAP model is then used to generate the structure of a multidimensional database. See also online analytical processing (OLAP).

**online analytical processing (OLAP)** A multidimensional, multiuser, client-server computing environment for users who analyze consolidated enterprise data in real time. OLAP systems feature drill-down, data pivoting, complex calculations, trend analysis, and modeling.

**Open Database Connectivity (ODBC)** Standardized application programming interface (API) technology that allows applications to access multiple third-party databases.

**Oracle home** A directory containing the installed files required by a specific product, and residing within the directory structure of Middleware home. See also Middleware home.

**organization** An entity hierarchy that defines each entity and their relationship to others in the hierarchy.

**origin** The intersection of two axes.

**outline** The database structure of a multidimensional database, including all dimensions, members, tags, types, consolidations, and mathematical relationships. Data is stored in the database according to the structure defined in the outline.

**outline synchronization** For partitioned databases, the process of propagating outline changes from one database to another database.

**P&L accounts (P&L)** Profit and loss accounts. P&L refers to a typical grouping of expense and income accounts that comprise a company's income statement.

**page** A display of information in a grid or table often represented by the Z-axis. A page can contain data from one field, derived data from a calculation, or text.

**page file** An Essbase data file.

**page heading** A report heading type that lists members represented on the current page of the report. All data values on the page have the members in the page heading as a common attribute.

**page member** A member that determines the page axis.

**palette** A JASC-compliant file with a .PAL extension. Each palette contains 16 colors that complement each other and can be used to set the dashboard color elements.

**parallel calculation** A calculation option. Essbase divides a calculation into tasks and calculates some tasks simultaneously.

**parallel data load** In Essbase, the concurrent execution of data load stages by multiple process threads.

**parallel export** The ability to export Essbase data to multiple files. This may be faster than exporting to a single file, and it may resolve problems caused by a single data file becoming too large for the operating system to handle.

**parent adjustments** The journal entries that are posted to a child in relation to its parent.

**parents** The entities that contain one or more dependent entities that report directly to them. Because parents are entities associated with at least one node, they have entity, node, and parent information associated with them.

**partition area** A subcube within a database. A partition is composed of one or more areas of cells from a portion of the database. For replicated and transparent partitions, the number of cells within an area must be the same for the data source and target to ensure that the two partitions have the same shape. If the data source area contains 18 cells, the data target area must also contain 18 cells to accommodate the number of values.

**partitioning** The process of defining areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications.

**pattern matching** The ability to match a value with any or all characters of an item entered as a criterion. Missing characters may be represented by wild-card values such as a question mark (?) or an asterisk (\*). For example, "Find all instances of apple" returns apple, but "Find all instances of apple\*" returns apple, applesauce, applecranberry, and so on.



**percent consolidation** The portion of a child's values that is consolidated to its parent.

**percent control** The extent to which an entity is controlled within the context of its group.

**percent ownership** The extent to which an entity is owned by its parent.

**performance indicator** An image file used to represent measure and scorecard performance based on a range you specify; also called a status symbol. You can use the default performance indicators or create an unlimited number of your own.

**periodic value method (PVA)** A process of currency conversion that applies the periodic exchange rate values over time to derive converted results.

**permission** A level of access granted to users and groups for managing data or other users and groups.

**persistence** The continuance or longevity of effect for any Essbase operation or setting. For example, an Essbase administrator may limit the persistence of user name and password validity.

**personal pages** A personal window to repository information. You select what information to display and its layout and colors.

**personal recurring time events** Reusable time events that are accessible only to the user who created them.

**personal variable** A named selection statement of complex member selections.

**perspective** A category used to group measures on a scorecard or strategic objectives within an application. A perspective can represent a key stakeholder (such as a customer, employee, or shareholder/financial) or a key competency area (such as time, cost, or quality).

**pinboard** One of the three data object display types. Pinboards are graphics composed of backgrounds and interactive icons called pins. Pinboards require traffic lighting definitions.

**pins** Interactive icons placed on graphic reports called pinboards. Pins are dynamic. They can change images and traffic lighting color based on the underlying data values and analysis tools criteria.

**pivot** Alter the perspective of retrieved data. When Essbase first retrieves a dimension, it expands data into rows. You can then pivot or rearrange the data to obtain a different viewpoint.

**planner** A user who can input and submit data, use reports that others create, execute business rules, use task lists, enable e-mail notification for themselves, and use Smart View. Planners comprise the majority of users.

**planning unit** A data slice at the intersection of a scenario, version, and entity; the basic unit for preparing, reviewing, annotating, and approving plan data.

**plot area** The area bounded by X, Y, and Z axes; for pie charts, the rectangular area surrounding the pie.

**plug account** An account in which the system stores any out-of-balance differences between intercompany account pairs during the elimination process.

**post stage assignment** Assignments in the allocation model that are assigned to locations in a subsequent model stage.

**POV (point of view)** A feature for setting data focus by selecting members that are not already assigned to row, column, or page axes. For example, selectable POVs in FDM could include location, period, category, and target category. In another example, using POV as a filter in Smart View, you could assign the Currency dimension to the POV and select the Euro member. Selecting this POV in data forms displays data in Euro values.

**precalculation** Calculating the database before user retrieval.

**precision** Number of decimal places displayed in numbers.

**predefined drill paths** Paths used to drill to the next level of detail, as defined in the data model.

**presentation** A playlist of Web Analysis documents, enabling reports to be grouped, organized, ordered, distributed, and reviewed. Includes pointers referencing reports in the repository.

**preserve formulas** User-created formulas kept within a worksheet while retrieving data.

**primary measure** A high-priority measure important to your company and business needs. Displayed in the Contents frame.

**Process Monitor Report** A list of locations and their positions within the FDM data conversion process. You can use the process monitor report to monitor the status of the closing process. The report is time-stamped. Therefore, it can be used to determine to which locations at which time data was loaded.

**product** In Shared Services, an application type, such as Planning or Performance Scorecard.

**Production Reporting** See SQR Production Reporting.

**project** An instance of Oracle's Hyperion products grouped together in an implementation. For example, a Planning project may consist of a Planning application, an Essbase cube, and a Financial Reporting Server instance.

**provisioning** The process of granting users and groups specific access permissions to resources.

**proxy server** A server acting as an intermediary between workstation users and the Internet to ensure security.

**public job parameters** Reusable named job parameters created by administrators and accessible to users with requisite access privileges.

**public recurring time events** Reusable time events created by administrators and accessible through the access control system.

**PVA** See periodic value method.

**qualified name** A member name in a qualified format that differentiates duplicate member names in a duplicate member outline. For example, [Market].[East].[State].[New York] or [Market].[East].[City].[New York].

**query governor** An Essbase Integration Server parameter or Essbase Server configuration setting that controls the duration and size of queries made to data sources.

**reciprocal assignment** An assignment in the financial flow that also has the source as one of its destinations.

**reconfigure URL** A URL that is used to reload servlet configuration settings dynamically when users are already logged on to the Workspace.

**record** In a database, a group of fields making up one complete entry. For example, a customer record may contain fields for name, address, telephone number, and sales data.

**recurring template** A journal template for making identical adjustments in every period.

**recurring time event** An event specifying a starting point and the frequency for running a job.

**redundant data** Duplicate data blocks that Essbase retains during transactions until Essbase commits updated blocks.

**regular journal** A feature for entering one-time adjustments for a period. A regular journal can be balanced, balanced by entity, or unbalanced.

**Related Accounts** Accounts related to the main account and grouped under the same main account number. The account structure groups all main and related accounts under the same main account number. The main account is distinguished from related accounts by the first suffix of the account number.

**relational database** A type of database that stores data in related two-dimensional tables. Contrast with multidimensional database.

**replace** A data load option that clears existing values from all accounts for periods specified in the data load file and loads values from the data load file. If an account is not specified in the load file, its values for the specified periods are cleared.

**replicated partition** A portion of a database, defined through Partition Manager, used to propagate an update to data mastered at one site to a copy of data stored at another site. Users can access the data as though it were part of their local database.

**Report Extractor** An Essbase component that retrieves report data from the Essbase database when report scripts are run.

**report object** In report designs, a basic element with properties defining behavior or appearance, such as text boxes, grids, images, and charts.

**report script** A text file containing Essbase Report Writer commands that generate one or more production reports.

**Report Viewer** An Essbase component that displays complete reports after report scripts are run.

**reporting currency** The currency used to prepare financial statements, and converted from local currencies to reporting currencies.

**repository** Storage location for metadata, formatting, and annotation information for views and queries.

**resources** Objects or services managed by the system, such as roles, users, groups, files, and jobs.

**restore** An operation to reload data and structural information after a database has been damaged or destroyed, typically performed after shutting down and restarting the database.

**restructure** An operation to regenerate or rebuild the database index and, in some cases, data files.

**result frequency** The algorithm used to create a set of dates to collect and display results.

**review level** A Process Management review status indicator representing the process unit level, such as Not Started, First Pass, Submitted, Approved, and Published.

**Risk Free Rate** The rate of return expected from "safer" investments such as long-term U.S. government securities.

**role** The means by which access permissions are granted to users and groups for resources.

**roll-up** See consolidation.

**root member** The highest member in a dimension branch.

**runtime prompt** A variable that users enter or select before a business rule is run.

**sampling** The process of selecting a representative portion of an entity to determine the entity's characteristics. See also metadata sampling.

**saved assumptions** User-defined Planning assumptions that drive key business calculations (for example, the cost per square foot of office floor space).

**scaling** Scaling determines the display of values in whole numbers, tens, hundreds, thousands, millions, and so on.

**scenario** A dimension for classifying data; for example, Actuals, Budget, Forecast1, or Forecast2.

**schema** In relational databases, a logical model that represents the data and the relationships between the data.

**scope** The area of data encompassed by any Essbase operation or setting; for example, the area of data affected by a security setting. Most commonly, scope refers to three levels of granularity, where higher levels encompass lower levels. The levels, from highest to lowest: the entire system (Essbase Server), applications on Essbase Server, or databases within Essbase Server applications. See also persistence.

**score** The level at which targets are achieved, usually expressed as a percentage of the target.

**scorecard** A business object that represents the progress of an employee, strategy element, or accountability element toward goals. Scorecards ascertain this progress based on data collected for each measure and child scorecard added to the scorecard.

**scrapping** An inspection of a data source to derive the most basic metadata elements from it. Contrast with introspection.

**secondary measure** A low-priority measure, less important than primary measures. Secondary measures do not have Performance reports but can be used on scorecards and to create dimension measure templates.

**security agent** A Web access management provider (for example, Oracle Access Manager, Oracle Single Sign-On, or CA SiteMinder) that protects corporate Web resources.

**security platform** A framework enabling Oracle EPM System products to use external authentication and single sign-on.

**serial calculation** The default calculation setting. Divides a calculation pass into tasks and calculates one task at a time.

**services** Resources that enable business items to be retrieved, changed, added, or deleted. Examples: Authorization and Authentication.

**servlet** A piece of compiled code executable by a Web server.

**shared disks** See shared storage.

**shared member** A member that shares storage space with another member of the same name, preventing duplicate calculation of members that occur multiple times in an Essbase outline.

**Shared Services Registry** The part of the Shared Services repository that manages EPM System deployment information for most EPM System products, including installation directories, database settings, computer names, ports, servers, URLs, and dependent service data.

**shared storage** A set of disks containing data that must be available to all nodes of a failover cluster; also called shared disks.

**Shared Workspace Pages** Workspace Pages shared across an organization that are stored in a special System folder and can be accessed by authorized users from the Shared Workspace Pages Navigate menu.

**sibling** A child member at the same generation as another child member and having the same immediate parent. For example, the members Florida and New York are children of East and each other's siblings.

**silent response files** Files providing data that an installation administrator would otherwise be required to provide. Response files enable EPM System Installer or EPM System Configurator to run without user intervention or input.

**single point of failure** Any component in a system that, if it fails, prevents users from accessing the normal functionality.

**single sign-on (SSO)** The ability to log on once and then access multiple applications without being prompted again for authentication.

**smart tags** Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In Oracle EPM System products, smart tags can also be used to import Reporting and Analysis content and to access Financial Management and Essbase functions.

**SmartCut** A link to a repository item, in URL form.

**snapshot** Read-only data from a specific time.

**source currency** The currency from which values originate and are converted through exchange rates to the destination currency.

**sparse dimension** In block storage databases, a dimension unlikely to contain data for all member combinations when compared to other dimensions. Contrast with dense dimension. For example, not all customers have data for all products.

**SPF files** Printer-independent files created by an SQR Production Reporting server, containing a representation of the actual formatted report output, including fonts, spacing, headers, footers, and so on.

**Spotlighter** A tool that enables color coding based on selected conditions.

**SQL spreadsheet** A data object that displays the result set of a SQL query.

**SQR Production Reporting** A specialized programming language for data access, data manipulation, and creating SQR Production Reporting documents.

**stage** 1) A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated. 2) For Profitability, logical divisions within the model that represent the steps in the allocation process within your organization.

**stage action** For automated stages, the invoked action that executes the stage.

**staging area** A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

**staging table** A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

**standard dimension** A dimension that is not an attribute dimension.

**standard journal template** A journal function used to post adjustments that have common adjustment information for each period. For example, you can create a standard template that contains the common account IDs, entity IDs, or amounts, and then use the template as the basis for many regular journals.

**Status bar** The bar at the bottom of the screen that displays helpful information about commands, accounts, and the current status of your data file.

**stored hierarchy** In aggregate storage databases outlines only, a hierarchy in which the members are aggregated according to the outline structure. Stored hierarchy members have certain restrictions; for example, they cannot contain formulas.

**strategic objective (SO)** A long-term goal defined by measurable results. Each strategic objective is associated with one perspective in the application, has one parent, the entity, and is a parent to critical success factors or other strategic objectives.

**Strategy map** Represents how the organization implements high-level mission and vision statements into lower-level, constituent strategic goals and objectives.

**structure view** Displays a topic as a simple list of component data items.

**Structured Query Language** A language used to process instructions to relational databases.

**Subaccount Numbering** A system for numbering subaccounts using nonsequential whole numbers.

**subscribe** Flags an item or folder to receive automatic notification whenever the item or folder is updated.

**Summary chart** In the Investigates Section, a chart that rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

**supervisor** A user with full access to all applications, databases, related files, and security mechanisms for a server.

**supporting detail** Calculations and assumptions from which the values of cells are derived.

**suppress rows** A setting that excludes rows containing missing values and underscores characters from spreadsheet reports.

**symmetric multiprocessing (SMP)** A server architecture that enables multiprocessing and multithreading. Performance is not significantly degraded when a large number of users simultaneously connect to an single instance.

**sync** Synchronization of Shared Services and application models.

**synchronized** The condition that exists when the latest version of a model resides in both the application and in Shared Services. See also model.

**system extract** A feature that transfers data from application metadata into an ASCII file.

**tabs** Navigable views of accounts and reports in Strategic Finance.

**target** Expected results of a measure for a specified period of time (day, quarter, and so on).

**task list** A detailed status list of tasks for a particular user.

**taskflow** The automation of a business process in which tasks are passed from one taskflow participant to another according to procedural rules.

**taskflow definition** Business processes in the taskflow management system that consist of a network of stages and their relationships; criteria indicating the start and end of the taskflow; and information about individual stages, such as participants, associated applications, associated activities, and so on.

**taskflow instance** A single instance of a taskflow including its state and associated data.

**taskflow management system** A system that defines, creates, and manages the execution of a taskflow, including definitions, user or application interactions, and application executables.

**taskflow participant** The resource that performs the task associated with the taskflow stage instance for both manual and automated stages.

**Taxes - Initial Balances** Strategic Finance assumes that the Initial Loss Balance, Initial Gain Balance, and Initial Balance of Taxes Paid entries have taken place in the period before the first Strategic Finance time period.

**TCP/IP** See Transmission Control Protocol/Internet Protocol.

**text measure** In Essbase, a member tagged as Text in the dimension where measures are represented. The cell values are displayed as predefined text. For example, the text measure Satisfaction Index may have the values Low, Medium, and High. See also typed measure, text list, derived text measure.

**time dimension** The time period that the data represents, such as fiscal or calendar periods.

**time events** Triggers for job execution.

**time scale** A scale that displays metrics by a specific time span, such as monthly or quarterly.

**time series reporting** A process for reporting data based on a calendar date (for example, year, quarter, month, or week).

**Timeline Viewer** An FDM feature that enables users to view dates and times of completed process flow steps for specific locations.

**Title bar** A bar that displays the Strategic Finance name, the file name, and the scenario name Version box.

**toast message** A message that fades in the lower-right corner of the screen.

**token** An encrypted identification of one valid user or group on an external authentication system.

**top and side labels** Column and row headings on the top and sides of a Pivot report.

**top-level member** A dimension member at the top of the tree in a dimension outline hierarchy, or the first member of the dimension in sort order if there is no hierarchical relationship among dimension members. If a hierarchical relationship exists, the top-level member name is generally the same as the dimension name.

**trace allocations** A Profitability feature that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

**trace level** The level of detail captured in a log file.

**traceability** The ability to track a metadata element to its physical source. For example, in Essbase Studio, a cube schema can be traced from its hierarchies and measure hierarchies to its dimension elements, date/time elements, measures, and, ultimately, to its physical source elements. See also lineage.

**traffic lighting** Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

**transformation** 1) A process that transforms artifacts so that they function properly in the destination environment after application migration. 2) In data mining, the modification of data (bidirectionally) flowing between the cells in the cube and the algorithm.

**translation** See currency conversion.

**Transmission Control Protocol/Internet Protocol (TCP/IP)** A standard set of communication protocols linking computers with different operating systems and internal architectures. TCP/IP utilities are used to exchange files, send mail, and store data to various computers that are connected to local and wide area networks.

**transparent login** A process that logs in authenticated users without launching the login screen.

**transparent partition** A shared partition that enables users to access and change data in a remote database as though it is part of a local database.

**triangulation** A means of converting balances from one currency to another through a third common currency. In Europe, this currency is the euro for member countries. For example, to convert from the French franc to the Italian lira, the common currency is defined as the European euro. Therefore, to convert balances from the French franc to the Italian lira, balances are converted from the French franc to the European euro and from the European euro to Italian lira.

**triggers** An Essbase feature whereby data is monitored according to user-specified criteria that, when met, cause Essbase to alert the user or system administrator.

**trusted user** Authenticated user.

**tuple** MDX syntax element that references a cell as an intersection of a member from each dimension. If a dimension is omitted, its top member is implied. Examples: (Jan); (Jan, Sales); ( [Jan], [Sales], [Cola], [Texas], [Actual] ).

**two-pass** An Essbase property that is used to recalculate members that are dependent on the calculated values of other members. Two-pass members are calculated during a second pass through the outline.

**unary operator** A mathematical indicator (+, -, \*, /, %) associated with an outline member. The unary operator defines how the member is calculated during a database roll-up.

**Unicode-mode application** An Essbase application wherein character text is encoded in UTF-8, enabling users with computers set up for different languages to share application data.



**unique member name** A nonshared member name that exists only once in a database outline.

**unique member outline** A database outline that is not enabled for duplicate member names.

**upgrade** The process of replacing a software release with a newer release. The term upgrade does not apply to installing a maintenance release. See also maintenance release, migration.

**upper-level block** A type of data block wherein at least one of the sparse members is a parent-level member.

**user directory** A centralized location for user and group information, also known as a repository or provider. Popular user directories include Oracle Internet Directory (OID), Microsoft Active Directory (MSAD), and Sun Java System Directory Server.

**user variable** A variable that dynamically renders data forms based on a user's member selection, displaying only the specified entity. For example, a user variable named Department displays specific departments and employees.

**user-defined attribute (UDA)** An attribute, associated with members of an outline to describe a characteristic of the members, that can be used to return lists of members that have the specified associated UDA.

**user-defined member list** A named, static set of members within a dimension defined by the user.

**validation** The process of checking a business rule, report script, or partition definition against the outline to ensure that the object being checked is valid.

**validation rules** Rules used in FDM to enforce data integrity. For example, in FDM, validation rules ensure that certain conditions are met after data is loaded from FDM to the target application.

**value dimension** A dimension that is used to define input value, translated value, and consolidation detail.

**variance** The difference between two values (for example, between planned and actual values).

**version** A possible outcome used within the context of a scenario of data. For example, Budget - Best Case and Budget - Worst Case where Budget is scenario and Best Case and Worst Case are versions.

**vertical application server cluster** A cluster with multiple application server instances on the same machine.

**view** A year-to-date or periodic display of data.

**visual cue** A formatted style, such as a font or a color, that highlights specific data value types. Data values may be dimension members; parent, child, or shared members; dynamic calculations; members containing a formula; read-only data cells; read-and-write data cells; or linked objects.

**WebLogic Server home** A subdirectory of Middleware home containing installed files required by a WebLogic Server instance. WebLogic Server home is a peer of Oracle homes.

**weight** A value assigned to an item on a scorecard that indicates the relative importance of that item in the calculation of the overall scorecard score. The weighting of all items on a scorecard accumulates to 100%. For example, to recognize the importance of developing new features for a product, the measure for New Features Coded on a developer's scorecard would be assigned a higher weighting than a measure for Number of Minor Defect Fixes.

**wild card** Character that represents any single character (?) or group of characters (\*) in a search string.

**WITH section** In MaxL DML, an optional section of the query used for creating reusable logic to define sets or members. Sets or custom members can be defined once in the WITH section and then referenced multiple times during a query.

**workbook** An entire spreadsheet file with many worksheets.

**workflow** The steps required to process data from start to finish in FDM. The workflow consists of Import (loading data from the GL file), Validate (ensures that all members are mapped to a valid account), Export (loads the mapped members to the target application), and Check (verifies accuracy of data by processing data with user-defined validation rules).

**Workspace Page** A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

**write-back** The ability for a retrieval client, such as a spreadsheet, to update a database value.

**ws.conf** A configuration file for Windows platforms.

**wscnf\_platform** A configuration file for UNIX platforms.

**XML** See Extensible Markup Language.

**XOLAP** An Essbase multidimensional database that stores only the outline metadata and retrieves all data from a relational database at query time. XOLAP supports aggregate storage databases and applications that contain duplicate member names.

**Y axis scale** A range of values on Y axis of charts displayed in Investigate Section. For example, use a unique Y axis scale for each chart, the same Y axis scale for all Detail charts, or the same Y axis scale for all charts in the column. Often, using a common Y axis improves your ability to compare charts at a glance.

**Zero Administration** A software tool that identifies version number of the most up-to-date plug-in on the server.

**ZoomChart** A tool for viewing detailed information by enlarging a chart. A ZoomChart enables you to see detailed numeric information on the metric that is displayed in the chart.



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