ORACLE® HYPERION FINANCIAL REPORTING STUDIO, FUSION EDITION

RELEASE 11.1.1.3

USER'S GUIDE

ORACLE®

ENTERPRISE PERFORMANCE MANAGEMENT SYSTEM

Reporting Studio User's Guide, 11.1.1.3

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Getting Started with Financial Reporting

In This Chapter

Oracle Hyperion Financial Reporting, Fusion Edition is a powerful tool for designing and presenting analytic data graphically. You can design traditional financial report formats such as cash management reports, profit and loss statements, and balance sheets. You can also design nontraditional formats for financial or analytic data that include text and graphics.

Financial Reporting uses an object-oriented graphical report layout. Whether you have little or advanced experience using an object-oriented graphical program, it is easy to design reports. You use report objects, such as text boxes, grids, images, and charts, to design your reports. You can use the same report objects in multiple reports.

Terminology in this Release

To differentiate between the Oracle Hyperion Financial Reporting Studio, Fusion Edition and the Web client the following terms are used in this guide:

- In this guide, for Reporting Studio, "workspace" is referred to as "Studio workspace". When in the Report Designer, "workspace" is referred to as the "Report Designer workspace". The Web client equivalent is referred to as Oracle Enterprise Performance Management Workspace, Fusion Edition.

- In this guide, for Reporting Studio, "explore" is referred to as "Studio Explore". The Web client equivalent is referred to as "Explore".

> **Note:** This guide provides detailed information on functions that are performed in Reporting Studio. Also, it briefly describes additional functionality that can be

performed in Financial Reporting Workspace. For information about Financial Reporting functionality that is performed in Workspace, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

Financial Reporting Components

Financial Reporting is comprised of numerous components that can be accessed in Reporting Studio, Workspace, or both:

- Report Designer—In Reporting Studio - Enables you to create, edit, or delete report objects, reports or snapshot reports.

- Explore

  - In Reporting Studio - Enables you to create, open, save, and delete folders and store report objects, reports, and snapshot reports.

  - In Financial Reporting Workspace - Enables you to open stored files, create folders, export and import files, and set up e-mail links to folders, reports, and snapshot books.

- Book Editor—In Financial Reporting Workspace - Provides the capability of creating a book of reports, which can be saved as a book or a snapshot book.

- Scheduler—In Financial Reporting Workspace-Enables you to schedule a batch and view the status of batches that are scheduled for future processing.

- Batch Editor—In Financial Reporting Workspace-Enables you to add objects to a batch job, remove objects from a batch job, schedule a batch, and indicate whether or not you want the batch deleted after it runs.

- Workspace—The tasks you can perform are based on your user rights.

  - In Reporting Studio - If you are Report Designer or Global Administrator, you can create, edit, or delete report objects, reports or snapshot reports in the designer Studio workspace or work with reports and report objects in Studio Explore.

  - In Workspace - you can create a book of reports, schedule batches, view batches, and edit batches. If you are a user with viewer rights you can view reports and export documents to Word, Excel, and PowerPoint. For information on Workspace, see*Oracle Enterprise Performance Management Workspace User's Guide.*

Data Sources

You can retrieve data from SAP BW data sources. You can also design and view reports that retrieve and format data from Oracle Hyperion Financial Management, Fusion Edition. Microsoft SQL Server Analysis Services (SSAS), and Oracle Essbase.

SAP BW Data Source

You can query multiple SAP BW data sources within a report. SAP BW data sources can include InfoProviders, which provide unified access to all types of SAP BW objects. These objects include InfoCubes, ODS objects, Master Data Tables, InfoSets, and remote InfoCubes.

With SAP BW data sources, Financial Reporting provides direct access to aggregates, which are integrated views of data in an InfoCube. Aggregates make it possible to access InfoCube data quickly in reporting.Financial Reporting provides direct access to aggregates through an OLAP BAPI, which is a specialized interface for accessing BW data through presentation tools.

Note: The SAP-BW's BAPI driver does not allow you to issue an MDX query on any cube which has more than 50 characters.

SSAS Data Source

SSAS delivers both online analytical processing (OLAP) and data mining functionality for business intelligence applications. Financial Reporting allows you to connect to a SSAS data source and produce financial reports. Considerations for SSAS:

- CSS/Single sign-on is not supported.

- SSAS does not support paging or cursoring. For example, if a parent node has one thousand children, and a user expands that node, one thousand are pushed to the client.

- To log on against the SSAS data source, the domain name is required in the User Name field.

- By default, when using SSAS 2000, any user can log on to the data source. To force a user to log on, set `SSASImpersonate=true` in the `fr_global.properties` file.

Sample Report

The following figure shows a sample report created in Reporting Studio. The sample report is designed with a header that contains an image and a title, and two grids and charts. The charts reference the grid data above.
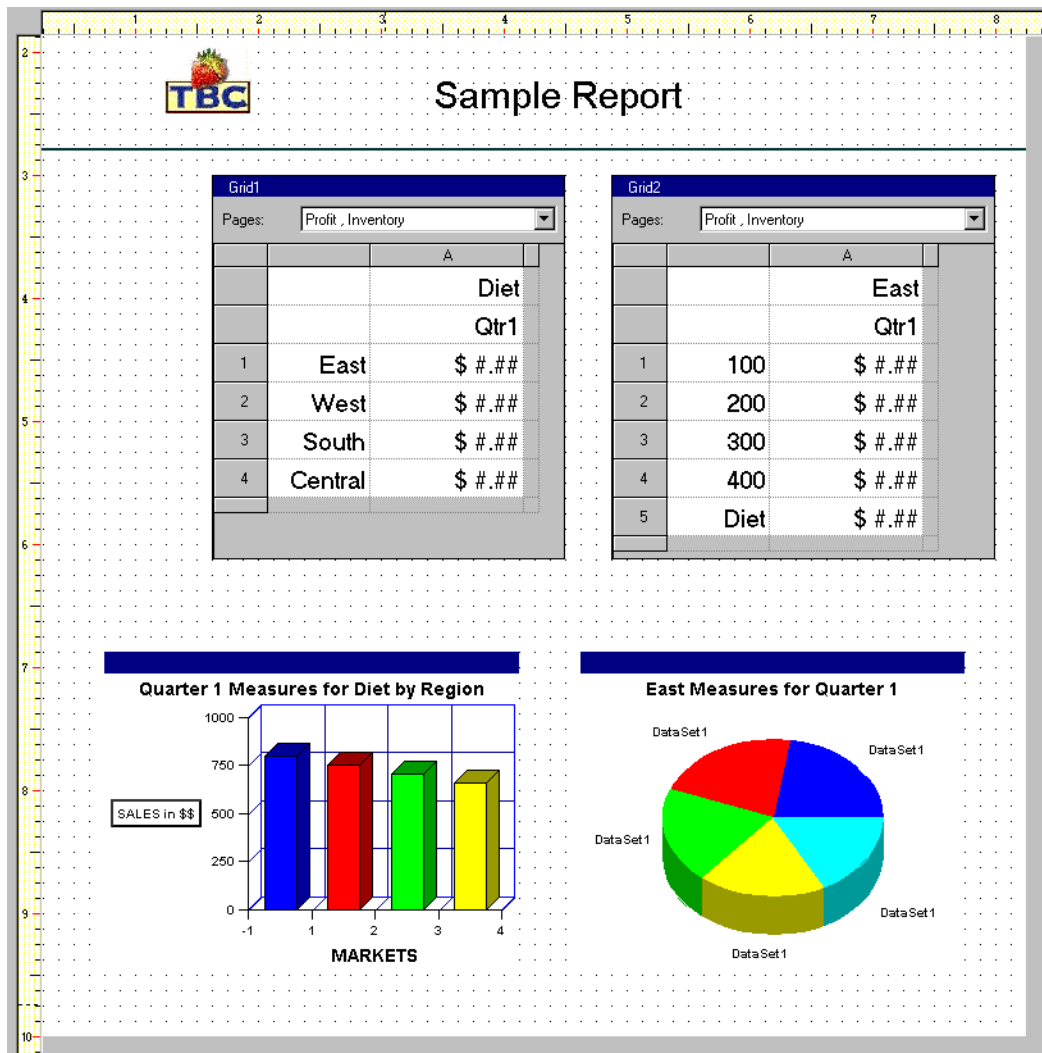
Report Components

The following table describes the components that you can use while designing reports in Reporting Studio. Report components include report objects, such as grids and charts, headers and footers, and rows, columns, and cells of grids.

Component	Description
Header	An area where you can display text on the top of each page of a report. You can add other report objects to a header.
Text Box	A report object that can contain text, or functions that retrieve data such as report settings, data values, point of view (POV) values, or dimension members
Grid	A report object in which you retrieve data in the rows, columns, and page axes
Chart	A report object that displays data from a specified grid. Charts are graphical representations of the data in a grid

Component	Description
Image	A report object that contains a graphic or an image file, which can be included in the following formats: Graphics Interchange Format (`.gif`), Joint Photographic Experts Group (`.jpg`), icon (`.ico` and `.cur`), and Windows bitmap (`.bmp`). You can add images to the body of the report and to a header or footer. **Note:** Bitmap (`.bmp`) images greatly increases the size of your report and may affect performance.
Footer	An area where you can display text on the bottom of each printed page of a report. You can also add images to a footer.
Row	A horizontal display of information in a grid. A row can contain text, data, or derived data from a calculation. You can format individual rows in grids.
Column	A vertical display of information in a grid. A column can contain text, data, or derived data from a calculation. You can format individual columns in grids.
Page	The third intersecting reference on a grid report object. A page repeats the data on the row and column over multiple members of additional dimensions. You can define members on a page to show different views of data without rerunning the report.
Cell	An intersection of a row, column, page, and POV for a grid **Note:** You can format individual cells in a grid

Report Objects

Report objects are basic components for designing reports in Reporting Studio. Report objects include text boxes, grids, images, and charts. You can use the toolbar buttons and menu commands to add report objects to the report.

The following table shows the toolbar buttons that you use to insert report objects. You can insert a new or a previously saved report object.

Table 1   Report Object Toolbar Buttons

Button	Description
	Inserts a text box.
	Inserts a grid.
	Inserts a chart.
	Inserts an image.

Studio Workspace

The Studio workspace is an area where you can open a new or existing report in the Report Designer and access the repository. The Studio workspace is the first area you see when you log on to Reporting Studio. Only a Report Designer and Global Administrator can access to the

Reporting Studio Explore and Designer. See the *Oracle Enterprise Performance Management Workspace User's Guide* for more information on rights and security.

Report Designer

In the Reporting Studio Designer area, the Report Designer can create and edit reports. You can view your report data in print, print preview, or Web preview.

In Reporting Studio Designer, you select toolbar buttons or menu commands to add report objects to the report. You can then customize each report object using its property sheet. For example, you can select a grid, and use the Grid Properties property sheet to specify dimensions, select members, and specify heading options. For more information on the property sheets, see "Property Sheet" on page 20.

You can also select a report object and right-click to display a shortcut menu. For a list of shortcut commands available, see "Shortcut Menu Commands" on page 35.

Property Sheet

Property sheets enable you to set various options for the currently selected report component. When you set a property option, it is automatically applied to the selected report object.

The property sheet features change based on the category selected. There are several categories available, depending on the type of report component selected. Each category shows another set of characteristics you can set for a selected report component.

By default, property sheets are displayed on the right side of the designer. You can hide the property sheet window.

To hide a property sheet that is displayed, deselect **View, then Property Sheet**.

To display a properties sheet that is hidden, select **View, then Property Sheet**.

Navigating in the Studio Workspace

After you log on, you see the Studio Explore page, which displays the Reporting Studio repository. Use the top of the page to select menu commands, use shortcuts from the toolbar area, or right-click to select shortcut menu items.

The Report Designer can create a report by selecting File, then New, then Report from the menu bar.

For menu option availability, see "Menus" on page 31, for toolbars, see "Toolbars" on page 28 and for shortcuts, see "Shortcut Menu Commands" on page 35.

Workspace Functionality

In addition to the functionality available in the Reporting Studio, Workspace provides expanded functionality for the Report Designer. For example, repository objects such as reports, books,

and graphics can be opened, copied, deleted, moved, imported, exported and renamed. Folders can be created, opened, deleted, imported, exported and renamed. Reports and books can be previewed (HTML or PDF). You can also sort items in the repository by clicking a column field header. In addition, the following menu commands are available: For detailed information on the following topics, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

- Access Privileges
- Preferences
- Change and manage Database Connections
- Email Links
- Display items of type
- Hyperion System 9 Shared Services[tm]

Batch and Book Editor, Batch Scheduler

Included with Workspace is the ability to work with books and batches. Batches can be created, edited and saved. Batches can also be scheduled, with full Batch Scheduler capabilities available from Workspace. Books can also be created, edited and saved. Advanced Member Selection has capabilities such as member functions (for example, Children, Descendants) and lists, similar to Reporting Studio. For more information on batches, Book Editor, and Batch Scheduler, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

Design Considerations

Report performance can vary for each client. What is acceptable for one client may not be acceptable for another. For example, if reports are run in batches during off-peak hours, they may have to be completed before the next business day. When data is updated hourly, report performance may only be acceptable if report output returns in seconds.

Planning Details as a Database Connection

Once you install the Hyperion System 9 Planning[tm] Planning Details ADM driver, you may choose Planning Details as a database connection. The Planning Details ADM driver is optimized as a data source to provide features such as supporting details, planning unit annotations and metadata filtering. If your report grid does not use those Planning features, for optimal performance, choose Oracle Essbase as the database connection for your report. For more information, see "Showing Supporting Detail for Planning" on page 116 and "PlanningAnnotations" on page 248.

Support for Workforce Planning Smart Lists

Smart Lists are attribute-like values that are assigned to members, where the actual assignment is stored as data in the Essbase cube for the member (for example, 0, 1, 2, 3, 4) and the Planning Repository translates those numbers to textual strings (for example, 0="Straight Line Depreciation", 1=" Double Declining Balance", and so on).

Examples of Financial Reporting support of Smart Lists:

● Grids which reference cells in a Planning database which contain Smart Lists will return a string value instead of a number. String values are always shown in the results instead of numbers.

● The Text function GetCell() returns the string value instead of a number when it references a cell containing an Smart List.

● Using "numeric" comparison operators and string comparison operators (equals, startswith, and so on), Conditional Formatting and Suppression allows selection of any cell (Data, Formula, Text) with the "Cell Value" operand. For example, Conditional Suppression can refer to a data cell which contains a Smart List string and apply Conditional Suppression such as "suppress row if cell value B, 6 starts with 'ABC'".

● You can apply conditional formatting and suppression to Oracle Hyperion Workforce Planning, Fusion Edition Smart Lists textual data.

Database Connection for Oracle Essbase and Planning Details

When you change a report from an Interactive Reporting database connection to a Planning Details database connection or vice versa, there are several restrictions because the data source reference is the only change. For more information, see "Changing a Report Database Connection" on page 274.

Data Queries - Expanded Versus Single Data Segments

A data segment is a row or column that retrieves data from a database. An expanded data segment is a row or column that can expand, so that the resulting grid expands to two or more rows or columns when viewed. Often, expanded data segments use functions such as Children Of or Descendants Of. A single data segment is a row or column that remains a single row or column when shown in the viewer.

While it is generally valid to use expanded and single data segments in the same grid, when designing a grid with large amounts of data, consider using expanded data segments rather than single data segments. Expanded data segments provide some performance advantages over single data segments. However, to produce detailed formatting on different data rows or columns, use single data segments.

Designing Considerations

Before designing reports, the designer should consider the following items:

- Has the data source application been designed to support the required hierarchies and calculations for all reports?

- What is the goal of the report?

- Who are the end users of the report?

- How frequently is the report generated and by how may users?

- What is an acceptable retrieval/generation time?

- How many cells does the report query (before suppression)?

Planning Considerations for Designing Reports Using Suppress Missing Blocks

You can use Suppress Missing Blocks to improve performance when rows or columns contain sparse dimensions. Suppress Missing Blocks allows placing large sparse dimensions in rows, while providing good response time if the density of the query is low. Only blocks with data are retrieved. For example, when using this option, you can place an employee dimension consisting of thousands of members in rows, and place the entity in the page or POV. Then, only employees of the selected entity are retrieved.

Using Suppress Missing Blocks aids the performance of Suppress Missing Data when suppressing a large number of rows, such as 90% or more. The Suppress Missing Blocks setting can degrade performance if few or no rows are suppressed. Also, certain suppressed blocks may ignore Dynamic Calc members.

Recommendations for Designing Dynamic Reports

When designing dynamic reports, consider the following information:

- Use expanded data segments for optimal performance:
  - Use functions on expanded data segments that are not placed on separate rows/columns
  - Use multiple member selections on expanded data segments that are not placed in separate rows/columns
  - Use single data segments only when required for formatting or calculations
- Write efficient formulas:
  - Use row/column formulas rather than cell formulas, when possible
  - Use reference properties
  - Use a cell reference instead of cross-axis references
  - Remove unnecessary parenthesis from formulas
- Don't limit your report to the Grid object:

- Add functions in text boxes that highlight specific areas
- Hide a grid of data in a report to highlight just the graphics
- Create report templates:
  - Leverage the power of POVs and prompting functions
  - Design once using the CurrentPOV and prompting functions
  - Learn the power of Grid, User, Book, and Batch POVs
- Create reusable objects and row and column templates. Text, Image, Grid, Chart objects, and row and column templates can be reused in multiple reports

BasicFinancial Reporting Tasks

Basic tasks in Reporting Studio are as follows:

- "Starting Reporting Studio" on page 24.
- "Designing Reports" on page 25.
- "Opening Existing Reports" on page 27.
- "Viewing Snapshot Reports" on page 27.
- "Creating a Book" on page 27
- "Creating a Batch" on page 27
- "Setting Preferences" on page 28
- "Changing your Password" on page 28
- "Closing Studio Explore or the Designer" on page 28
- "Exiting Reporting Studio" on page 28.

Starting Reporting Studio

➤ To start the Reporting Studio:

1 Perform an action:

- Double-click the Reporting Studio icon on your desktop.
- From the Windows Start menu, select **Programs then, Hyperion then, Reporting & Analysis then, Financial Reporting then, Studio**.

2 When the Hyperion Login dialog box is displayed, type your User ID, Password, and select a report server. Click **Okey**.

Logging on to Workspace

➤ To log on to Workspace:

1 Enter the following case-sensitive URL in the **Address** box of the Web browser:

```
http://webserver:port number/workspace/index.jsp
```

2 Enter your username and password.

3 Click **Log On**. Workspace is displayed.

Designing Reports

You can design reports in the Reporting Studio Designer using a blank report layout where you can specify the contents of the report, including grids, charts, images, text boxes, headers, and footers.

➤ To design a report in the Report Designer:

1 Select **File then, New then, Report**.

2 To add data to your report, select **Insert then, Grid**, then drag an area on the Designer Studio workspace for the grid.

3 In the Select a Database Connection dialog box, perform an action:

● Select a database connection from the drop-down list and click **OK**.

● Create a new database connection by clicking the **New Database Connection** button. The Database Connection Properties dialog box is displayed:

a. In the **Database Connection Name** text box, enter a unique name for the connection.

b. Select a data source type from the **Type** drop-down list: **HFM**, **Planning Details**, **Oracle Essbase**, **Microsoft SQL Server Analysis Services** (SSAS), or **SAP-BW**.

> **Note:** When designing a report with a Planning data source, select the Planning Details data source type only if your grid contains Supporting Detail or Planning Unit Annotations. In all other cases, select Oracle Essbase as the data source type.

c. For Oracle Essbase, Financial Management, SSAS, or SAP BW data source, enter the database server name in the Server text box.

d. Enter a user Id in **User ID**.

e. Click to select the Application/Catalog and Database.

f. For an SAP BW data source, enter the two-digit system number of the SAP system in the **System Number** text box and the client computer name in the **Client** text box. For more information about the system number and client specifications, see the SAP documentation.

g. For a Planning Detail data source, enter the name of the plan type in the **Plan Type** text box.

> **Note:** The Database/Cube Lookup is combined into the Application/Catalog Lookup button. The Application/Catalog Look up button displays a tree view of the applications/catalogs and corresponding databases/cubes; The applications are listed as parents and the databases are listed as children. For data sources that are not associated with a database, only applications are listed.

4 Click **OK**.

Opening Existing Reports

You can open existing reports in the Designer or Studio Explore to modify the report design or to display the report with current data. Data is refreshed when the report is opened or viewed. Static data can be saved with a report when you save it as a snapshot report.

➤ To open an existing report in the Designer:

1 Select **File** then, **Open**.

2 Double-click a folder from the **Open** dialog box or highlight the folder name and click **Open**.

A list of all reports contained in the folder is displayed.

3 Select reports to open, then click **Open**.

➤ To open an existing report in Studio Explore:

1 From Studio Explore, double-click a folder to view all reports in the folder.

2 Double-click a report you want to open.

Viewing Snapshot Reports

You view snapshot reports to display and print static reports. You can open a snapshot report from Studio Explore repository.

➤ To view a snapshot report, select one or more snapshot reports from the repository and select **File, then Print Preview**. For information on viewing or printing a snapshot report, see Chapter 8, "Previewing and Printing Reports."

Creating a Book

Books are created in Workspace. For information on creating a book, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Creating a Batch

Batches are created in Workspace. For information on creating a batch, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Setting Preferences

Preferences are set in Workspace. For information on setting preferences, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

Changing your Password

Passwords are set in Workspace. For instructions, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

Closing Studio Explore or the Designer

You can close Studio Explore and Designer pages:

➤ To close Studio Explore or a Designer page, select **File, then Close**.

Exiting Reporting Studio

You can exit Reporting Studio at any time. If there are unsaved reports or batches open, you are prompted to save them before exiting.

➤ To exit Reporting Studio, select **File, then Exit**.

Toolbars

The toolbars provide quick access to the most frequently used features. The availability of some toolbar buttons depends on the content of the current window and the selected report object. You can use the View menu to display or hide the Standard and Designer toolbars.

Note: To view toolbar features available for Financial Reporting in Workspace, see *Oracle Enterprise Performance Management Workspace User's Guide.*

Standard Toolbar

The Standard toolbar contains shortcuts to standard features. You can use the View menu to display or hide the Standard toolbar. The following table describes the Standard toolbar buttons.

Button	Menu Command	Description
	File / New / Report	New Report button - Create a report from Reporting Studio.

Button	Menu Command	Description
	File / Open	Open button - Opens a report, snapshot report, or report object into the Designer.
	File / Save	The Save button - Saves the current file.
	File / Explore	Explore button - Opens the repository, where you can open files and create folders.
	File / Print	Print button - Opens the Print dialog box where you can print the current report or book.
	File / Print Preview	Print Preview button - Displays each page as it looks when printed.
	File / Web Preview	Web Preview button - Displays the report or snapshot report in Workspace.

Designer Toolbar

The Designer toolbar contains shortcuts to design features. You can use the View menu to display or hide the Designer toolbar. The following table describes the Designer toolbar buttons and their equivalent menu commands. The Designer toolbar applies to the Studio workspace only.

Button	Menu Command	Description
	Insert / Grid	Insert Grid button - Adds a grid to the report.
	Insert / Text	Insert Text button- Adds a text object to the report.
	Insert / Image	Insert Image button - Adds an image to the report.
	Insert / Chart	Insert Chart button - Adds a chart to the report.
	Insert / Row	Insert Row button - Inserts a row above a highlighted row in a grid. ● Click the main button to insert a data row as the selected row in the grid. ● Click the drop-down arrow to insert another row type from the drop-down list (formula row or text row).

Button	Menu Command	Description
	Insert /> Column	Insert Column button - Adds a column to the left of a highlighted column in a grid. ● Click the main button to insert a data column as the selected column in the grid. ● Click the drop-down arrow to insert another column type from the drop-down list (formula column or text column).
B	Format / Cells /> Font tab	Bold button - Applies bold to the selected area.
I	Format / Cells / Font tab	Italic button - Applies italics to the selected area.
U	Format / Cells / Font tab	Underline button - Draws a line below the selected area.
	Format / Cells / Alignment tab	Left Justify button - Aligns the selected text to the left. Alignment options are accessed through the Alignment tab in the Format Cells dialog box.
	Format / Cells / Alignment tab	Center Justify button - Aligns the selected text in the center. Alignment options are accessed through the Alignment tab in the Format Cells dialog box.
	Format / Cells / Alignment tab	Right Justify button - Aligns the selected text to the right. Alignment options are accessed through the Alignment tab in the Format Cells dialog box.
	Format / Cells / Alignment tab	Increase Indent button - Increases the indent of the selected text by one pixel increments. Indent functionality is accessed through the Alignment tab in the Format Cells dialog box.
	Format / Cells / Alignment tab	Decrease Indent button - Decreases the indent of the selected text by one pixel increments. Indent functionality is accessed through the Alignment tab in the Format Cells dialog box.
A	Format / Cells	Format button - Enables the Format Cells dialog box, where you can specify formatting such as font type, size, and color for the selected area.

Button	Menu Command	Description
A!	Format / Conditional Format	Conditional Format button - Enables the Conditional Format dialog box through which you can apply formatting to selected cells based on whether specific conditions are met.
(brush icon)	Format Painter	Format Painter button - Applies a format of a selected cell or cell range to a target cell or cell range. See, Chapter 9, "Formatting Reports."

Menus

The following sections show the commands available under the menus. The menus include File, Edit, View, Insert, Format, Task, Window, and Help.

Note: To view menu command available for Financial Reporting in Workspace, see *Oracle Enterprise Performance Management Workspace User's Guide.*

File Menu

The File menu is available in Reporting Studio workspace, Report Designer, and Studio Explore. You can use the File menu to open, save, and print reports. The availability of some of the menu options depends on the content of the current window and the module from which the menu is accessed. The following table shows the commands in the File menu:

Command	Reporting Studio Description
New	Enables you to create a report.
Open	Opens a report, a snapshot report, or a report object into the designer.
Close	Closes the current report in the designer or Studio Explore.
Save	Saves the current report or snapshot report
Save As	Saves the current item as a report or snapshot
Save Object	Opens the Save Object dialog box where you can save the selected object to Studio Explore **Note:** This is only available in the Designer.
Explore	Opens the repository where you can access report objects and open reports, snapshot reports, report objects, and folders
Print	Opens the Print dialog box, through which you can specify a printer and print reports
Page Setup	Opens the Page Setup dialog box through which you can specify page size, page margins, and Designer workspace size.

Command	Reporting Studio Description
Print Preview	Displays a view of a selected report as it would look printed.
Web Preview	Displays the report in Workspace. Viewing options for a report include HTML and PDF
Summary	Opens the Report Summary dialog box, from which you can view summary information about the report
Report Server Info	Opens the Report Server Info dialog box, through which you can view server information, including Report Activity, JVM Memory, and Threads
Exit	Exits Financial Reporting.

Edit Menu

The following table shows the command available under the Edit menu.

Command	Description
Delete	For the designer, removes an object from a report. in Studio Explore, removes a report, snapshot report or report object.

View Menu

You can use the View menu to show or hide toolbars, properties sheets, gridlines, refresh and display items by type. You can also apply the zoom option for a selected grid. The following table shows the commands available under the View menu.

Table 2   View Menu

Command	Description
Standard Toolbar	Shows/hides the Standard toolbar
Designer Toolbar	Shows/hides the Designer toolbar
Property Sheet	Shows/hides the current properties sheet in the Designer
Guidelines	Shows/hides the guidelines in the Designer
Explore Toolbar	In Explore, shows/hides the Studio Explore toolbar
Refresh	Refreshes the repository library file list.
Word Wrap	In Studio Explore, enables text to continue to the next line.
Display Items of Type	In Studio Explore, enables you to limit your list of files by selected file types. For an explanation of these options, see Table 11 on page 38.
Zoom Grid	When working with grids, selecting Zoom Grid expands the view of a grid to the size of Studio workspace

Insert Menu

The Insert menu is available in the Designer. You can use the Insert menu to add new or saved report objects and insert new rows or columns in grids. The availability of some of the menu options depends on the content of the current window. The following table shows the commands available under the Insert menu.

Table 3   Insert Menu

Command	Description
Grid	Inserts a grid in the report
Text	Inserts a text box in the report
Image	Inserts an image in the report
Chart	Inserts a chart in the report
Saved Object	Opens the Insert Saved Object dialog box from which you can insert saved grids, charts, images, and text objects from the repository into the report. You can link the saved object to the source object by selecting the Link to Source Object check box in the Insert Saved Object dialog box.
Row / Data	Inserts a data row in the grid above the insertion point
Row / Formula	Inserts a formula row in the grid above the insertion point
Row / Text	Inserts a text row in the grid above the insertion point
Column / Data	Inserts a data column in the grid to the left of insertion point
Column / Formula	Inserts a formula column in the grid to the left of insertion point
Column / Text	Inserts a text column in the grid to the left of insertion point

Format Menu

The Format menu is available from the Designer. You can use the Format Cells dialog box, accessible through the Format menu and the Designer toolbar, to change the font of selected text or grid objects, specify row height and column width to hide rows or columns or set other formatting options. The commands that are available depend on whether a report or report object is selected. The following table shows the commands available under the Format menu.

Table 4   Format Menu

Command	Description
Cells	Opens the Format Cells dialog box through which you can format numbers, align text, modify font options, add border and shading, and replace text for the selected cells in the grid
Conditional Format	Opens the Conditional Format dialog box through which you can apply conditional formatting. For more information, see Chapter 9, "Formatting Reports."
Bring to Front	When organizing report objects, select Bring to Front to move an object in front of another object

Command	Description
Send to Back	When organizing report objects, select Send to Back to rearrange other report objects on top of, or in front of, the selected object
Font	For text objects, opens the Font dialog box through which you can apply formatting to text in a text object.

Task Menu

The Format menu is available from the Designer. You can use the Task menu to set up the POV and sort rows or columns on the grid. The following table shows the commands available under the Task menu:

Command	Description
Set Up User POV	Change the POV setup for data sources in a report that is open.
Data Query Optimization Settings	When working with grids, set data query optimization options to enable you to optimize the efficiency of the data queries that you specify.

Administration Menu

The Administration menu is only available from Workspace. Administrators can use the Administration menu to maintain users, maintain groups, and configure the Report Server. For detailed information, see the Oracle Enterprise Performance Management Workspace User's Guide.

Window Menu

The Window menu is available in the Studio workspace, Report Designer, and Studio Explore. You can use the Window menu to cascade, tile, arrange Hyperion Desktop windows or access another open Hyperion Desktop window. The availability of some commands depends on the content of the current window and the module from which the menu is accessed. The following table describes the commands in the Window menu.

Table 5   Window Menu

Command	Description
Cascade	Overlays each of the open windows in the Hyperion Desktop placing the file most recently accessed on top
Tile Horizontally	Arranges each of the open windows in the Hyperion Desktop so they display horizontally, one below the other
Tile Vertically	Arranges each of the open windows in the Hyperion Desktop so they display vertically, side by side
Arrange Icons	Arranges minimized windows in the Hyperion Desktop so they are evenly spaced

Help Menu

The Help menu is available in Studio workspace, Report Designer, and Studio Explore. You use the Help menu to access Help, the PDF version of the User's Guide, and information about Financial Reporting. The following table describes the commands in the Help menu.

Table 6   Help Menu

Command	Description
Contents	Opens the online help Contents tab, from which you can search for topics
About Reporting Studio	Contains information about Financial Reporting, including version, your logon User ID, and Report Server

Shortcut Menu Commands

You can use the shortcut menu commands to perform many common tasks. Various shortcut menu commands are displayed when you right-click in the Report Designer or Studio Explore. The commands available depend on the component selected. The following tables describe the available shortcut menu commands:

Table 7   Shortcut Menu: Editing a Row or Column from the Designer

Editing a Column - Right-Click Menu in Designer

Command	Description
Cut	Removes the selected row/column from the report and places it in the Windows clipboard
Copy	Duplicates the selected row/column and places it in the Windows clipboard
Paste	Places the cut or copied row/column in the report
Delete	Removes the selected row/column from the report
Save as Row and Column Template	Save the selected row/columns as a row and column template, which is a reusable repository object
Insert Row and Column Template	Inserts a row and column template from the repository into a grid below a row or to the left of the selected column
Format	Opens the Format Cells dialog box from which you can format numbers, align text, modify font options, add border and shading, and replace text for the selected item in the grid
Conditional Format	Opens the Conditional Format dialog box through which you can apply conditional formatting. For more information, see Chapter 9, "Formatting Reports."
Insert Row/Column / Data	When selected, a data row/column is added to the report
Insert Row/Column / Formula	When selected, a formula row/column is added to the report

Editing a Column - Right-Click Menu in Designer

Command	Description
Insert Row/Column / Text	When selected, a text row/column is added to the report

Table 8   Shortcut Menu: Selecting a Grid (not the object)

Selecting a Grid - Right Click Menu in Designer

Menu Command	Description
Dimension Layout	Displays the Dimension Layout dialog box where you can change dimensions for the pages, rows, and columns of a grid
Grid Point of View	Displays or hides the Grid Point of View bar
Grid Point of View Setup	Displays the Setup Grid Point of View dialog box where you select members for the Grid Point of View
Data Query Optimization Settings	Displays the Data Query Optimization Setting dialog box where you can suppress the rows on the database connection server or the report server, include or exclude the Oracle Essbase sparse command, and set the number of asymmetric columns to consolidate

Table 9   Shortcut Menu: Report Background

Report Background - Right Click Menu in Designer

Menu Command	Description
Save	Saves the report
Print	Prints the report
Page Setup	Opens the Page Setup dialog box from which you can specify page setup options, including page, margins, and Report Designer workspace size
Print Preview	Displays each page as it looks when printed
Web Preview	Displays each page as it looks in Workspace
Summary	Opens the Report Summary dialog box from which you can view report summary information
Show Guidelines	Displays the guidelines in Report Designer workspace
Insert Object / Grid	Enables you to insert a grid
Insert Object / Text	Enables you to insert a text box in the report
Insert Object / Image	Enables you to insert an image in the report
Insert Object / Chart	Enables you to insert a chart in the report

Report Background - Right Click Menu in Designer

Menu Command	Description
Insert Object / Saved Object	Opens the Insert Saved Object dialog box, through which you can insert an object that is saved in Studio Explore

Table 10   Shortcut Menu: Editing a Grid Title Bar, Text, Image or Chart Object

Editing a Grid Title Bar, Text, Image, or Chart Object - Right-Click Menu in Designer

Command	Description
Save Object	Opens the Save Object dialog box through which you can save the selected object to the repository or a folder in the repository.
Delete	Removes the selected item from the report.
Horizontal Position on Form / None	This selection indicates no horizontal positioning for the selected object.
Horizontal Position on Form / Relative	Sets the horizontal positioning of the object relative to the positioning of other objects on the form.
Horizontal Position on Form / Left	Sets the horizontal positioning of the object to the left of the form.
Horizontal Position on Form /> Center	Sets the horizontal positioning of the object to the center of the form.
Horizontal Position on Form / Right	Sets the horizontal positioning of the object to the right of the form
Vertical Position on Form / None	This selection indicates no vertical positioning for the selected object.
Vertical Position on Form / Relative	Sets the vertical positioning of the object relative to the positioning of other objects on the form.
Vertical Position on Form / Top	Sets the vertical positioning of the object to the top of the form
Vertical Position on Form / Middle	Sets the vertical positioning of the object to the middle of the form
Vertical Position on Form / Bottom	Sets the vertical positioning of the object to the bottom of the form
Bring to Front	When organizing report objects, select Bring to Front to move an object in front of another object
Send to Back	When organizing report objects, select Send to Back to rearrange other report objects on top of, or in front of, the selected object
Zoom	When working with grids, select Zoom to expand the view of a grid to the size of Report Designer Workspace

Table 11   Shortcut Menu: Studio Explore

Repository - Right-Click Menu

Command	Description
New Folder	Adds a folder to the Studio Explore
Open	Opens a report, snapshot report, or report object into the Designer
Print	Opens the Print dialog box where you can print the selected report from the repository
Print Preview	Displays the report as it looks when printed
Delete	Removes the selected file from the repository on confirmation
Display Items of Type / All Items	FromReporting Studio. When selected, all files are displayed
Display Items of Type / Report	From Reporting Studio. When selected, only report files are displayed
Display Items of Type / Snapshot	From Reporting Studio. When selected, only snapshot files are displayed
Display Items of Type / Book	From Reporting Studio. When selected, only book files are displayed
Display Items of Type / Snapshot Book	From Financial Reporting. When selected, only snapshot book files are displayed
Display Items of Type / Batch	From Reporting Studio. When selected, only batch files are displayed
Display Items of Type / Saved Report Object	From Reporting Studio. When selected, only saved report objects (for example, images) are displayed
Refresh	Refreshes the repository to include new folders and reports

Table 12   Shortcut Menu: Designer Grid Cell Level Selection

Cell Level - Right Click Menu

Menu Command	Description
Format	Opens the Format Cells dialog box from which you can format numbers, align text, modify font options, add borders and shading, and replace text for the selected item in the grid
Conditional Format...	Opens the Conditional Format dialog box through which you can apply conditional formatting. For more information, see Chapter 9, "Formatting Reports."
Merge	Combines two or more cells into one cell in a grid

Error Messages

Error messages communicate essential information, alerts, and warnings of critical problems. They also contain descriptions, solutions, and detailed information, when available.

Hyperion Reports

i Failed to connect to Server.

[OK] Show Details >>
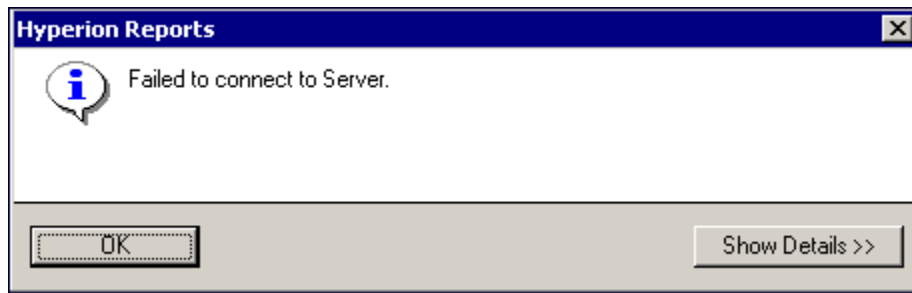
The error message dialog comprises the following sections:

- An icon. One of three icons may be displayed, symbolizing a message type. The usage and descriptions of these icons adhere to Microsoft standards as follows:

Icon	Message Type	Description
i	Information	Provides information about results of a command. Offers no user choices; the user acknowledges the message by clicking the OK button.
⚠	Warning	Alerts the user to a condition or situation that requires the user's decision and input before proceeding, such as an impending action with potentially destructive, irreversible consequences. The message can be in the form of a question; for example: "Save changes to MyReport?"
✕	Critical	Informs the user of a serious problem that requires intervention or correction before work can continue.

- A short message. The message is as specific as possible and never misleading; for example:

  `Failed to connect to server.`

- A remedy. If possible, the remedy includes information that tells the user what to check: for example: `Verify:`

  `network connections, server is running, application name is valid, database name is valid.`

- Details about the error. Click the Show Details button to view available detail information; for example:

  `ErrorStack: com.hyperion.reporting.util. HyperionReportException: Error getting Datasource Connection at`

```
com.hyperion.reporting.client.DesignerManager.
getDatasourceConnection(Unknown Source) at
com.hyperion.reporting.javacom.
DesignerManagerComImpl.getDatasourceConnection(Unknown Source
```

2

Selecting Members for Report Designers

Specifying data for grids entails setting criteria that identify the data for retrieval. You set the criteria by assigning members to the rows, columns, and page axes in a grid, as well as to the grid point of view (POV) and user POV bars. For more information, see Chapter 6, "Defining the User POV" and "Defining the Grid Point of View" on page 117.

You can create lists of reusable members, and use functions that retrieve members dynamically. Before you begin to define members, you must insert a grid in the report and define its dimension layout. For more information, see "Adding Grids" on page 88.

Note: If you use Planning Details as a type of database connection to go against a Planning cube, all available dimensions are listed. However, you have access privileges to members only in certain dimensions. This affects the output of your report. For more information, on how access privileges affect your report, see the topic "Access Privileges for the Planning Details Database Source" on page 60.

Assigning Members to Data Rows or Columns

You assign members and member lists to retrieve data for your reports. You can select members to be displayed in your report, or you can use functions to select dimension members dynamically. You can insert a separate row or column in a grid for each selected member, or you can place all of the selected members on one row or column.

➤ To select members for data rows or columns:

1   Open a report.

2   To add members using the **Select Members** dialog box, take an action:

   ● Double-click a dimension in the grid.

   ● Select a dimension in the grid. Then in the formula bar, click the button with the dimension name.

   Note: If you know the member names for a dimension, enter the member names, separated by commas, into the formula bar text area. Case sensitivity is enabled for member names, however it is not enabled for function names. For example, for the Measures dimension you might enter children of (Profit), then click the check mark to verify the member names.

3   Take an action:

   ● To assign individual members, select the **Members** tab, then highlight the members to add to the data row or column.

   ● To assign member lists, select the **Lists** tab, then highlight the member lists to add to the data row or column.

   ● To assign functions, select the **Functions** tab, then highlight the functions to add to the data row or column.

4   Take an action:

   ● To add the highlighted items to the Selected area, click .

   ● To add a member function (children, descendents, and so on) to a selected member, click .

   Note: The Add Relationship button is available only on the Members tab.

5   **Optional:** In the Selected area, review the selected members by clicking the **View** button, then selecting **Preview**. For more information, see "Previewing Selected Members" on page 59.

6   **Optional:** To insert a row or column for each selected member, select the check box, **Place selections into separate rows (or Columns)**.

   Note: This option is available only in the Select Members dialog box and not the Formula bar.

7   Click **OK** to return to the report designer.

Assigning Members to the Page Axis

You can assign members to the page axis of a grid. When you select members for the page axis and run the report, the system generates a grid for each page member. If a chart references a grid with multiple page members, a new chart is generated for each page member.

For example, suppose you assign the following members of the Scenario and Entity dimensions to the page axis:

● Target 1 and Target 2 of the Scenario dimension

● Radio Promotions and Web Promotions to the Entity dimension

When you view the report, it is formatted and populated with data from all combinations of members on the page axis. The report contains four grids, one for each page member combination.

You can select any combination of the members:

● Target 1: Radio Promotions

● Target 1: Web Promotions

● Target 2: Radio Promotions

● Target 2: Web Promotions

To add or change dimensions that are assigned to the page axis, see .

> **Note:** In Financial Reporting, the members (and corresponding data) in the page axis are all retrieved when the report is run. Reports with a large number of members on the page axis, may impact performance.

➤ To assign members to the page axis:

1 Open a report.

2 Select a dimension on the **Pages** bar.

3 On the formula bar, select the button with the dimension name.

> **Note:** If you know the member names for a dimension, enter the member name into the formula bar text area. For example, for the Measures dimension enter Profit, Sales. Click the check mark, to verify the member selection.

4 In the **Member Selection** dialog box, select the members to use on the page axis, then click **OK**.

Assigning Special Members

You can use the Select Members dialog box to select the special members Prompt, Same As, Current Point of View, and User Point of View.

- Prompt acts like a variable that asks the user to select members when a report is run. You determine the dimension and defaults at design time, and the user selects the members when generating the report. Prompt also enables the report writer to filter the dimension members from which the user can select when running the report.

- Same As creates a column or row member selection with the same member selection setting as another column or row.

- Current Point of View acts as a variable that employs the POV to specify the member of a dimension when the report is run.

- User Point of View can be selected as a member on the book POV. The parameters can be modified by the end user.

Setting Up Report Prompts for Members

A prompt is a way of enabling the viewer to assign members to a dimension. The prompt is set up during design time. As a report designer, you can limit the type of data to assign to a dimension. You can also specify whether the Respond to Prompts dialog box displays member names, descriptions (for a Financial Management database connection) or aliases (for Oracle Essbase or Planning database connections), or both member names and descriptions or aliases.

For example, you might create a report that enables the user to select from lines of products. The report designer selects Prompt as a member of Product, then selects specific lines of product. The end user who runs the report selects from those product lines.

➤ To set up a report prompt for members:

1 Open a report.

2 Double-click a dimension cell for which you want to assign a prompt.

3 In the **Available** area of the **Members** tab, select **Prompt for (***dimension name***)** and move it the **Selected** area.

4 Click **OK.**

The Define Prompts dialog box is displayed:

Figure 1   Setting up Report Prompts for Members
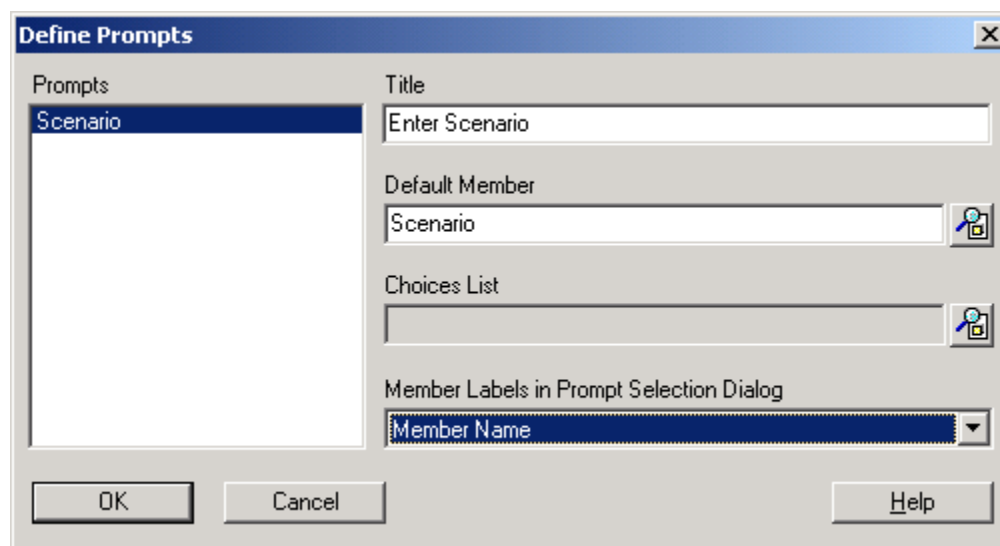
5   **Optional**: To limit the prompt selection to specific default members, or a list of members, or both, take an action:

- If the member name is known, enter the member name in **Default Member** or click the **Default Member** search button. If multiple member are provided for the prompt, members must be separated by commas. For information on selecting members, see "Assigning Members to Data Rows or Columns" on page 42.

  Note: If you leave **Default Member** blank, the Respond to Prompts dialog box does not display a default member when a user runs the report or creates a batch. The user must specify a member rather than accept a blank default. If a member is not selected, the report is not run.

- If the list of members is known, click the **Choices List** button to select a list of members. If multiple member lists are provided for the prompt, member lists must be separated by commas. For more information, see "Defining Member Lists" on page 56.

6   From the **Member Labels in Prompt Selection Dialog** drop-down list, select the kinds of labels to be displayed in the **Respond to Prompts** dialog box when the report is run:

- If the database connection is Oracle Essbase or Planning, select **Member Name**, **Alias**, or **Member Name and Alias**.

- If the database connection is Financial Management or SAP BW, select **Member Name**, **Description**, or **Member Name and Description**.

7   Click **OK**.

Setting Up Same As References

Same As enables the designer to obtain a member selection from another row or column. The following characteristics apply to Same As in Financial Reporting:

- In a report, members referred to by Same As are always from the same dimension, same type of database connection, and same grid.

- Members referred to by Same As are only available for member selections on rows and columns in a grid. Same As cannot be used as member selection in:

  ○ Page Axis

  ○ Grid POV

  ○ User POV

  ○ Book POV

  ○ Batches POV

  ○ Default member selection for a prompt

  ○ A response to a prompt

  ○ Member function member parameter, such as range

  ○ Member selection in the book editor

- Same As can reference a row or column that gets its member selection from a prompt or Current POV.

- Same As cannot reference another Same As reference.

- Same As is not supported within row and column templates.

- Same As must be used alone and cannot be combined with any other member selections.

➤ To set up Same As:

1 Open a report and double-click a member selection for which you want to set up Same As.

2 On the **Members** tab, expand **Same As Member Selections** and select **Same As**...for the row or column for the dimension, then click the **Add** button, , to add the **Same As** for the dimension to the Selected area.

3 Click **OK**.

Setting Up a Current Point of View

A current POV enables the designer to obtain a member for a row, column, or page from the user POV.

➤ To set up a current POV:

1 Open a report and double-click a member selection for which you want to set up a current POV.

2 On the **Members** tab, select **Current Point of View** for the dimension, then click the **Add** button, , to add the **Current Point of View** for the dimension to the Selected area.

3 Click **OK**.

Selecting the User Point of View as a Member in the Book Point of View

When a report is added to a book, the dimensions that are on the user POV in the report definitions are applied to the book POV. Members on the book POV default to the user POV in the Book Editor.

➤ To select the user POV as a member in the book POV:

1 Select **File then, Repository.**

> **Tip:** You can filter the repository by selecting **View then, Display Items of Type** and then selecting Book.

2 Double-click a book. The book is opened in the Book Editor.

3 In the book POV, double-click a dimension for which you want to set up a user POV.

4 From the Select Members dialog box, select the **User Point of View** for the dimension.

5 Click **OK.**

Assigning Members Using Functions

You can use functions to select members dynamically. After you select a function, you can edit its parameters. For more information on the dynamic use of functions, see "Using the Formula Bar" on page 134. For more information on editing function parameters, see "Editing Functions" on page 53.

Table 13 and Table 14 describe the functions used to assign members.

> **Note:** Except where noted, all functions listed are supported for Oracle Essbase and Planning Details. Supported functions for Financial Management (HFM), SAP-BW and SSAS are noted in separate columns.

Table 13   Functions Available Through Member Selection and the Formula Bar

Function	Syntax	Financial Management	SAP BW and SSAS	Description
Children	Children of *member* (Inclusive)	x	x	The members one level below the specified parent
Descendants	Descendants of *member* (Inclusive)	x	x	The members at all levels below the specified parent
BottomOfHierarchy	Bottom of Hierarchy *dimension*	x		All Level 0 members

Function	Syntax	Financial Management	SAP BW and SSAS	Description
Siblings	Siblings of *member* (Inclusive)	x	x	The members with the same parent as the specified member
OnSameLevelAs	Same level as *member*			The members from the same dimension and on the same level as the specified member
SameLevelAs			x	All members of the same level.
OfSameGeneration	Same generation as *member*			The members of the same dimension and generation as the specified member
Parent	Parent of *member* (Inclusive)	x	x	The member one level above the specified member
TopOfHierarchy	Top of Hierarchy *dimension*	x		The top-level member of hierarchy
SystemMemberList	System-defined Member List Lev(n),*dimension*	x		The members in a specified system-defined member list
Ancestors	Ancestors of *member* (Inclusive)	x	x	The members at all levels above the specified member
AllMembers	All Members in Hierarchy *dimension*	x		The members of the specified dimension
Member	member	x	x	The specified member
Members			x	All members of the current dimension
Base	Base members of Hierarchy *dimension*	x		The base or level 0 members of a hierarchy
UserDefined1	All members where user defined is *selected attribute*	x		Supported in Financial Management Only. All entities and custom dimensions can be used with the following exceptions: View, ICP, Year, Period, Scenario. The members of selected attribute
UserDefined2	All members where user defined is *selected attribute*	x		Supported in Financial Management Only. All entities and custom dimensions can be used

Function	Syntax	Financial Management	SAP BW and SSAS	Description
				with the following exceptions: View, ICP, Year, Period, Scenario. The members of selected attribute
UserDefined3	All members where user defined is *selected attribute*	x		Supported in Financial Management Only. All entities and custom dimensions can be used with the following exceptions: View, ICP, Year, Period, Scenario. The members of selected attribute

The member functions listed in the following table can be selected from the Functions tab through member selection. They cannot, however, be entered dynamically in the formula bar.

Table 14   Functions Available Only Through Member Selection

Function	Description
Property	Used with Oracle Essbase and Planning Details only. Extracts the members with the specified property value
UserMemberList	Used with Oracle Essbase only. The members in a specified user-defined member list
Match	Used with Financial Management, Oracle Essbase and Planning Details. The members that match a specified pattern or set of characters. **Note:** When using the '*' wildcard with Planning, the pattern may only contain one *, and it may only appear as the last character.
CommonChildren	Used with Financial Management only. This function is valid for the common members in the Entity dimension only. For example, with the following structure: Parent1 ChildA ChildB ChildC Parent2 ChildA ChildB ChildD The common children function replaces the Member with the Parent. In this example, the Member is Parent1 and the Parent is Parent2. Therefore, the result of using the CommonChildren function in this example would be the following output: Parent2.ChildA Parent2.ChildB

Function	Description
	Parent2.ChildC
	This is the children of Parent1 with Parent2 now substituted as the parent. In this example, since ChildA and ChildB are children of Parent2 the result for these two would be valid. However, the result for Parent2.ChildC is not really valid and would return nothing.

RelativeMember
 	
Lead — using SSAS or SAP BW, returns the current and next members relative to the selected member.
 	
Lag — using SSAS or SAP BW, returns the current and previous members relative to the selected member.
	Used for all dimensions with Oracle Essbase and Planning Details database connections. This function is also available for the Year dimension with a Financial Management database connection. This function enables you to perform arithmetic offset.
	
	Note: Arithmetic offset is the distance to move forward or backward on a specified level.
	
	For example, with an Oracle Essbase database connection, to list this data:
	
	Current Qtr Next Month
	
	you set the parameters as follows:
	
	    Member = Current Point Of View
	
	    Offset = +1
	
	    Hierarchy = Year
	
	    RelativeMemberList = Lev0, Year
	
	    UseFirstDescendant = checked
	
	Note: In this example, UseFirstDescendant = checked causes the system to start from the first descendant of Qtr1, which is Jan. The offset is +1, which makes the Next Month = Feb.
	
	If the current POV = Qtr1, the result is as follows:
	
	Current Qtr Next Month
	
	Qtr1 Feb
	
	Note: When using a time dimension, keep the offset in the same calendar year as the specified level. For example, if you start with June, you can offset back to January or forward to December.
	
	For a Financial Management database connection, to list this data:
	
	Year Next Year
	
	you set the parameters as follows:
	
	    Year = Current Point Of View for Year
	
	    Offset = +1
	
	    Hierarchy = Year
	
	If the current Point of View = Year, the result is as follows:
	
	Current Year Next Year
	
	2003 2004

PeriodOffset	Used with a Financial Management database connection only. This function enables you to perform arithmetic offset on only the Period dimension. **Note:** Arithmetic offset is the distance to move forward or backward from a specified level. For example, to list this data:

Function	Description
	Current Qtr Next Month
	you set the parameters as follows:
	Member = Current POV
	Offset = +1
	Hierarchy = Dim
	Note: PeriodOffset always spans the period and year combination. Therefore, if you select Jan offset -2 (assuming the year is 2002), the answer (member shown) would be Nov 2001.
DynamicMemberList	Used with Financial Management database connection only. This function enables you to select a member list that is defined to support dynamic POV on the Entity dimension. DynamicMemberList is based on a POV, and takes Entity and Parent (optional) as parameters, If the Parent parameter is specified, the Parent name is used for all entities returned from the enumeration of the list. If the Parent parameter is not specified, then no substitution is done.
	Entity is based on the Scenario, Year, and Period defined at the POV level. Therefore, the system will not use Scenario, Year, and Period on the grid. If you place Scenario, Year, or Period on the grid, the following message is displayed: "5200: Error executing query: Scenario, year, and period must be specified on the point of view for a dynamic member list."
	Note: The DynamicMemberList can be executed from the Lists tab or Functions tab. On the Lists tab, you begin by selecting a (dynamic) list, then adding the Entity and Parent parameters. On the Functions tab, you begin by selecting the DynamicMemberList function, then selecting a dynamic list (DynamicNamedGroup), Entity, and Parent.
Dynamic Time Series Members	The following eight Dynamic Time Series members can be defined within Oracle Essbase. Only Dynamic Time Series members that are defined in the Oracle Essbase database are displayed in the Functions tab of the Select Members dialog box in Financial Reporting.
	● H-T-D History-to-date
	● Y-T-D Year-to-date
	● S-T-D Season-to-date
	● P-T-D Period-to-date
	● Q-T-D Quarter-to-date
	● M-T-D Month-to-date
	● W-T-D Week-to-date
	● D-T-D Day-to-date
	These members provide up to eight levels of period-to-date reporting. How many members you use, and which members, depends on your data and database outline.
	Note: These members are used only with time-based dimensions and the lowest-level data. You can view H-T-D, Q-T-D, and M-T-D Dynamic Time Series members on the Functions tab if you select the Year dimension for the Sample application and Basic database.
	For more information on Dynamic Time Series members, see the *Oracle Essbase Database Administrator's Guide, Volume 1*.

Function	Description
Substitution Variables	Stored in a directory for the selected dimension in the Select Members dialog box, substitution variables serve as placeholders for information that changes regularly. A variable value can be changed at any time by the Oracle Essbase administrator. These are useful for reports that depend on reporting periods. With a substitution variable, such as CurMnth, set on the server, you can change the assigned value each month to the time period. **Note:** The list of available Oracle Essbase substitution variables displayed in the Member Selection dialog is obtained when you start the Financial Reporting Report Client. If you add a new substitution variable using the Oracle Essbase Application Manager, you must restart the Report Client to see the addition. Anytime you run a report, the latest values for all Oracle Essbase substitution variables are used. You can view a CurrMonth substitution variable member on the Members tab if you select the Year dimension for the Sample application and Basic database. A substitution variable is preceded by a green square. For more information on substitution variables, see the *Oracle Essbase Database Administrator's Guide, Volume 1.*
SuppressSharedMember	For Oracle Essbase and Planning Details only, suppress the display of duplicate members. This function is only valid with the following functions: DIMBOTTOM, OFSAMEGEN, or ONSAMELEVELAS. **Note:** Use UNION and not AND to work correctly.
Range	For Oracle Essbase, SAP BW, SSAS, and Planning Details database connections, you can specify a range of members by selecting a start member and an end member of the range. For example, you can use the Year dimension to specify all months in the first quarter by selecting January as the start member of the range and March as the end member. For Financial Management, the Range function applies only to the Period dimension. For example, if you want to list this data: **Beginning Period Ending Period** for a range of members in the current quarter, you set the parameters as follows: Start Member = July End Member = September Years to Iterate Over = 0 The number of iterations you specify determines the number of times you pass through the Period dimension. For example, if you specify 1 for the Years to Iterate Over parameter, the report spans July to September of the following year. **Note:** Do not use a Prompt and a Range function in the same grid when the Range function also includes Prompts.
OrderBy	For Planning Details database connection only, you can specify the order of members that come back from member selection by a member property. The OrderBy function comprises two required parameters: ● Property - Provides the Member Name option and a list of all properties available for members. Name is the default. ● Direction - Provides the options for directions: Ascending, Descending, Hierarchy Ascending, Hierarchy Descending. The OrderBy function applies to all member selections in the Selected list.

Function	Description
DimBottom	For SSAS only, the bottom level members of a dimension
SortHierarchy	For Oracle's Hyperion® Web Analysis only, sort members in outline order, by hierarchy. It is translated into Essbase report script command <sortHierarchy. See Essbase documentation for details.

➤ To assign members using functions:

1 **Open a report.**

2 **Double-click a dimension cell for which you want to assign members using functions.**

3 **In the Select Members dialog box, select the Functions tab.**

4 **Highlight one or more functions.**

    Note: Hold down the Ctrl key while selecting multiple functions.

5 **Click the Add button, , to open the Edit (*name*) Function dialog box.**

    Note: The Edit (*name*) Function dialog box is not displayed for functions that do not require parameter values, such as BottomofHierarchy, TopofHierarchy, AllMembers, and SuppressSharedMembers.

6 **Double-click the Value column inside row 1, then edit its value by clicking .**

    Note: Since the Value field for an SSAS data source is populated with the Key instead of member name, for ease of use, we recommend you use to select members.

    Tip: You can resize the columns using the arrows that appear when you hover the cursor over the column dividers that display between categories.

7 **Repeat steps step 2 through step 6 to edit the remaining rows.**

8 **Click OK.**

9 **Click OK to return to your report.**

Editing Functions

You can edit a function by changing its parameter values. For example, you can specify that a function include or exclude a specified member, or you can change the hierarchy value of a function.

➤ To edit a function:

1 **Open a report and select the data row or column or a data row or column heading cell in which you want to edit a function.**

2   In the Selected area of the Select Members dialog box, double-click the function to edit.

3   Double-click the Value column inside row 1, then edit its value by clicking the **Lookup** button.

4   Repeat step 1 through step 3 to edit the remaining rows.

5   Click **OK**.

6   Click **OK** to return to your report.

Copying Members Between Applications

You can take any valid members from an application, such as an Excel spreadsheet, and paste them as new members in the corresponding dimension of another application. For example, suppose you have the following members in Excel for the Year dimension: Jan, Feb, Mar, Apr, May, Jun, July, Aug, Sep, Oct, Nov, Dec. You can copy those members to a grid that contains the Year dimension. If you paste members into a row or column that contains a secondary database connection, the type of database connection is carried over with the members.

➤ To copy members between applications:

1   Open an application containing the members you want copied to a report.

2   Copy the members to use with Financial Reporting.

3   Switch to Financial Reporting.

4   Select **File then, Open**.

5   Open a report.

6   Select a cell in a grid that contains the dimension to which you want to copy members.

7   In the formula bar, right-click inside the text box, then select **Edit then, Paste**.

8   Edit the text in the formula bar by adding commas between members.

9   Click ✔ to verify the member names.

Removing or Adding Members

You can remove or add members from a dimension. Removing members changes the output of your report, giving you more control over its content.

➤ To remove or add members that are contained in one cell:

1   Click the cell containing the members. The dimension name is displayed on the formula bar button; members are displayed in the text area of the formula bar.

2   In the formula bar, take an action:

- Double-click the dimension name that is displayed on the command button to display the Select Members dialog box.

❍ To remove one or more items from the **Selected** area, select the items, then click the **Remove** button, .

❍ To remove all items, click .

● Edit the text area of the formula bar by removing or adding members. Separate members with commas. Then click to verify the member names.

➤ To remove members that are in separate rows or columns:

1 Select the row or column.

2 Right-click the row or column, then select **Delete**.

Selecting Multiple Members Based on Criteria

You can select members dynamically based on user-defined criteria. You define criteria by creating expressions of members, Boolean operations, and commands.

Boolean operators enable you to specify precise member combinations for the report, which is useful for dealing with large volumes of data. Use the AND, OR, UNION, and NOT Boolean operators, combined with expression commands, to refine your member selections.

➤ To select multiple members based on criteria:

1 Open a report.

2 Double-click a dimension cell for which you want to assign members.

3 In the **Select Members** dialog box, right-click inside the Selected area, then click **Advanced**.

Note: At least two members must be displayed in the Selected area before you can create criteria.

4 Build expressions by using one or more of the following operators and symbols:

● Select **NOT** to add the Boolean operator NOT to the expression. NOT is the inverse of the selected condition.

● Type a left parenthesis, (, to add an opening character to the expression.

● Type a right parenthesis,), to add a closing character to the expression.

● Click in the **OPERATOR** column, then select **AND**, **OR**, or **UNION**.

❍ When all conditions must be met, use the AND operator.

❍ When one condition of several must be met, use the OR operator.

❍ To combine the data, use the UNION operator.

Note: You must use two pairs of parentheses if you are using three members. For example, if you selected descendants of Market and you want to exclude East, West, and South, your advanced member selection query should be as follows: Descendants of Market AND NOT (East AND NOT (West AND NOT SOUTH))

5 Click **OK** to return to your report.

Filtering the View of Members Based on Criteria

You define filters to view only members that meet your criteria. You can then select from the filtered list for your report. For example, you can display Regions in the United States division only. Filters are useful for reducing the number of members that are displayed.

For an SAP BW data source, your filtering criteria can include display attributes, which provide descriptive information about a dimensions, levels, or members. Filtering criteria can use wildcards and the Contains, Starts with, Ends with, and Is Null operators as well as the equal sign (=), less-than (<), an greater-than (>) operators.

➤ To define filters:

1 Open a report.

2 Double-click a dimension cell for which you want to edit a member.

   The Select members dialog box is displayed.

3 Right-click inside the **Available** area and name one of the following selections:

   ● Select **Filter then, Custom**, highlight the lists or available functions, then click the **Add** button, [icon], to move them to the **Selected** area.

   ● Select **Filter then, Predefined**, then highlight the desired list.

4 Click **OK**.

5 Click **OK** to return to your report.

Defining Member Lists

Member lists are user-defined saved queries or system-defined lists of members. System-defined lists are typically created by the database administrator. Member lists can include members, other member lists, and functions.

Note: User-defined lists can be created only with Oracle Essbase as a database connection. The size of a member list cannot exceed 4K.

➤ To define a member list:

1 Open a report.

2 Double-click a dimension cell for which you want to assign a member.

3 In the Select Members dialog box, take an action:

   ● In the **Members** tab, highlight the members to include in the member list, right-click inside the **Available** area, then click **Save Highlighted**.

- In the **Lists** tab, right-click inside the **Available** area, then click **Create**.

4 From the **Available** area of the **Create (dimension) List** dialog box, select the members, member lists, and functions to include in the member list and move them to the Selected area using the **Add** button, ⬇, or **Add Relationship** button, ▦.

5 **Optional:** To edit a function, use the procedure described in .

6 Click **OK**.

7 Enter a name and description for the member list, then click **OK**.

Note: Do not use quotation marks (") when entering a member list. If you do, Financial Reporting saves the name with the quotation marks, but you cannot select the name later.

8 Click **OK** to return to your report.

Editing Member Lists

You can edit user-defined member lists. For example, you can add or remove members or functions from a member list.

➤ To edit a member list:

1 Open a report.

2 Double-click a dimension cell for which you want to edit a member list.

3 In the Select Members dialog box, select the **Lists** tab.

4 Double-click the user-defined member list to edit.

5 In the **Edit...List** dialog box, take an action:

- To add members to the **Selected** list, highlight the items in the **Members**, **Lists**, or **Functions** tabs, then click the **Add** button, ⬇, or **Add Relationship** button, ▦.

- To remove members from the list, highlight the members in the **Selected** area, then click the **Remove** button, ⬅.

- To remove all items, click the **Remove All** button, ⬅

6 Click **OK**.

7 Click **OK** to return to your report.

Searching for Members
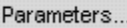
You can perform searches for members to edit. You can search using a text string or by property (that is, name and description). You can also use a blank space as a separator to perform simultaneous searches. If you enclose a string of characters in quotation marks, the system searches for an exact match, including the blank spaces between the characters.

The system saves the previous 25 search criteria strings. If you are searching for a list or function you must activate this function by using the Find Next or Find Previous button.

Note: For Financial Management, when you search for an entity, you must search on parent.entity (for example. D62VIELO.D62475LO). When you search just the entity, you must precede the entity with a wildcard, (for example, *D62475LO).

The following table shows the options used to find members:

Table 15   Find Options

Option	Description
Find text box	Used to enter the characters for performing a search, or select a saved search criteria string from the list. The search string can be a partial search string, a word, or multiple words.
🔍	Use this to search for a member. Click the Find button to display the members that match the search criteria.
Use Wildcards	Use the Find text with wildcard symbols (* and ?) to search for the specified members. By default, Use Wildcards is enabled. ● Use ? to represent a single character search. ● Use * to represent a multiple character search. **Note:** If the search criteria has a space in it, enclose the search phrase in a double quote. For example, *IC Offset* should be "*IC Offset*". If the location of the "*" wildcard is at the end only, for example IC Offset*, then you need not enclose the phrase in quotes.
Parameters...	Click to set search parameters for the Find text box. Choose from the following parameter options: ● Search - Select a member property by which to search. ● Wildcard Search (default) - Insert the text and wildcard symbols (* and ?) in the Find text box to search for the specified member. The * represents multiple characters and the ? represents a single character. ● Case-sensitive Search - Allows case-sensitive text in the Find text box to search for the specified member.
(Find Previous)	Use this to search for a list or function. Highlights the previous item that matches the search criteria.
(Find Next)	Use this to search for a list or function. Highlights the next item that matches the search criteria.

➤ To search for members:

1 Open a report.

2 Double-click a dimension cell for which you want to search for members.

3 In the Available dialog box, enter text in the Find text box or select a saved criteria string from the drop-down list.

Note: The wildcard option is automatically enabled during member selection.

4 Perform an action:

- If you are searching for a member, click the **Find** button .

- If you are searching for a list or a function, click the **Find Next** button, or the **Find Previous** button.

5   Click **OK** to return to your report.

Sorting Members

You can sort members to facilitate viewing them within member selection. By default, the members are displayed in the sort order of the database connection.

You can sort selectable members in a preferred order, and you can sort the members that are selected to match the row or column order of data in your report. The order in which selected items are displayed in member selection is the order in which they are evaluated and displayed on the report.

You sort the members by property and display them in ascending or descending order. By default, the system sorts the list numerically, then alphabetically.

You can enable the system to sort the list whenever the view changes, or you can sort the list manually.

➤ To sort members manually:

1   Open a report.

2   Double-click a dimension cell for which you want to sort members.

3   In the **Selected Members** list, click **View**, then select **Sort**.

4   In the **Sort (dimension) Items** dialog box, select the property for the primary sort, then click . Optionally repeat this step to select a second and third sort method.

5   Click **OK** twice.

Previewing Selected Members

You can preview the members or member lists selected for your report before you run it. The members that you view result from an evaluated member list or function.

➤ To preview members:

1   Open a report.

2   Double-click the cell for which you want to preview members.

3   In the Select Members dialog box, click the **Selected** area.

4   Click the **View** button, and select **Preview**.

5   The **Preview (dimension) Items** dialog box is displayed, listing the member selection for that selected cell.

6   Click **OK** to close the **Preview (dimension) Items** dialog box.

Access Privileges for the Planning Details Database Source

If your grid uses Planning Details as a database connection, Financial Reporting gives you access privileges on members in certain dimensions. The dimensions include Accounts, Entities, Scenarios, and Versions. In the Select Member dialog box, all members for the Planning Details database connection are listed regardless of access privileges. Therefore, you can place members on a grid that are not returned when the report is run. The members you choose affect the output of the report. For example, if you select a member to which the user cannot access in the Point of View or Page Axis, an error message is returned.

For information on setting access privileges security for an end user, see *Oracle Enterprise Performance Management Workspace Administrator's Guide.*

The following four scenarios describe which values are returned on a grid that contains valid and invalid dimensions or members.

For the following scenarios, the user is reporting against a Planning Details database connection and has access privileges to the following dimensions and members:

- Accounts: Sales, Profit
- Versions: 1st Draft, 3rd Draft, Final Version
- Entities: North, Canada
- Scenarios: Budget

Scenario 1

The user runs a report for the following grid:

Page: Budget

	1st Draft	2nd Draft	3rd Draft
North	#.##	#.##	#.##
Central	#.##	#.##	#.##
South	#.##	#.##	#.##

Result: Because the user does not have access to Central, South, and 2nd Draft, the report returns the following results:

Page: Budget

	1st Draft	3rd Draft
North	23.89	12.90

Scenario 2

The user runs a report for the following grid:

Page: Actual

	1st Draft	2nd Draft	3rd Draft
North	#.##	#.##	#.##
Central	#.##	#.##	#.##
South	#.##	#.##	#.##

Result: Because the user does not have access to Scenarios: Actual on the Page, no page is displayed and an error message describing your access privileges is returned.

Scenario 3

The user runs a report for the following grid:

Page: Budget

	1st Draft	2nd Draft	3rd Draft
London	#.##	#.##	#.##
Paris	#.##	#.##	#.##
New York	#.##	#.##	#.##

Result: Because the user does not have access to the Entities on the rows, no page is displayed and an error message describing your access privileges is returned.

Scenario 4

The user runs a report for the following grid:

Page: Budget

	Descendants of Versions
Descendents of Entities	#.##

Result: The report returns the following data:

Page: Budget

	1st Draft	3rd Draft	Final Version
North	23.89	12.90	67.12
Canada	2.67	8.90	54.78

3 Customizing Charts

This chapter describes the kinds of charts you can create and the ways in which you can format them. The following topics create the basic framework for customizing charts:

A chart is a graphical representation of report data from a grid on a report. The chart retrieves data dynamically from the grid, so if data in the grid changes, the chart is updated automatically.

You can define and format the following components of a chart:

- Chart type and data content
- Chart attributes such as title, title angle, font angle, and background formatting
- Legend and axis information such as labels, font, background color, and orientation
- Formatting options specific to a chart type, such as bar width for a bar chart
- Horizontal and vertical positioning of a chart on a report

You can hide the controlling grid to display only the chart in your report. For more information, see "Hiding Rows, Columns, or Grids" on page 176.

For information about adding charts to your report, see "Inserting Charts" on page 93.

About Charts

You create charts to portray data graphically in your reports. You can use the different chart types to illustrate trends and tendencies, highlight differences and improvements, or add value and informative charts and graphs to your reports.

You can design the following types of charts: bar charts, line charts, combo charts, and pie charts. These chart types are described in the following sections.

Bar Charts

A bar chart can display as many as 50 data sets, with any number of values assigned to each data set. Properties for the following items are supported for the bar chart:

- Appearance
- Legend
- Axes
- Element Style
- Bar

You can display data sets by grouping corresponding bars or stacking them, or you can display them in separate rows. You can show bars with or without a 3D effect, applying one of the following bar shapes: bar, triangle bar, diamond bar, or cylinder.

The following example shows four data sets - East, West, South, and Central - with four values assigned to each data set. The bars are grouped and displayed with a 3D effect.

Figure 2   Sample Bar Chart
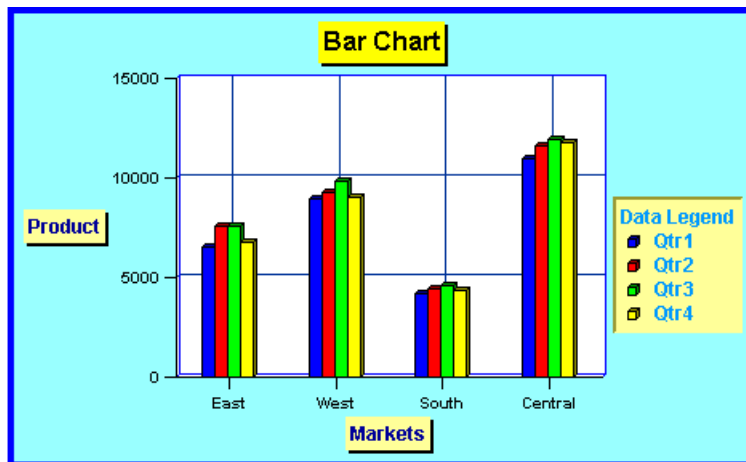
Line Charts

A line chart can display as many as 50 data sets, with automatic, uniform spacing along the X axis. Properties for the following items are supported for the line chart:

- Appearance
- Legend
- Axes
- Element Style
- Line

The following example shows four data sets, represented by lines for East, West, South, and Central. Each line reflects the absolute value of the data set.

Figure 3   Sample Line Chart
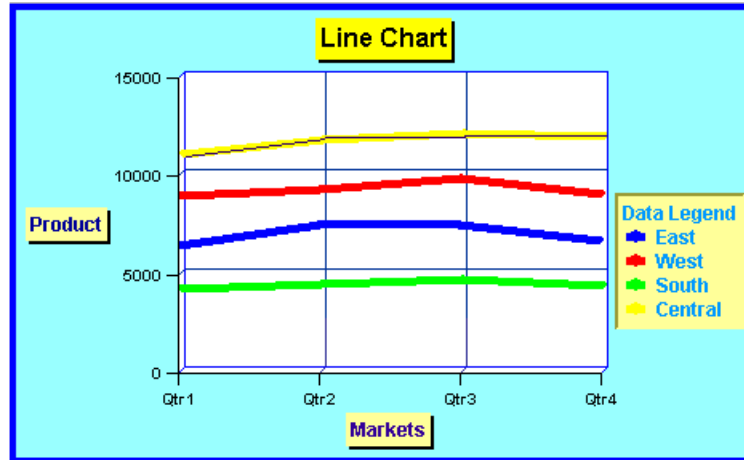
Combo Charts

A combo chart is a combination bar chart and line chart. Combo charts are typically used for comparison charting. The combo chart accepts a group of bar data sets and line data sets. It uses all of the display parameters found in bar charts and line charts. Two data set selections are required: one for the bar rendering and one for the line rendering. Properties for the following items are supported for the combo chart:

- Appearance
- Legend
- Axes
- Element Style
- Bar
- Line

The following sample combo chart shows four data sets: Qtr1, Qtr2, Qtr3, and Qtr4. The dimensions compare Product to Markets. There are four values assigned to each data set. The bars are grouped and displayed with a 3D effect. The chart uses bar and line chart display options.

Figure 4   Sample Combo Chart
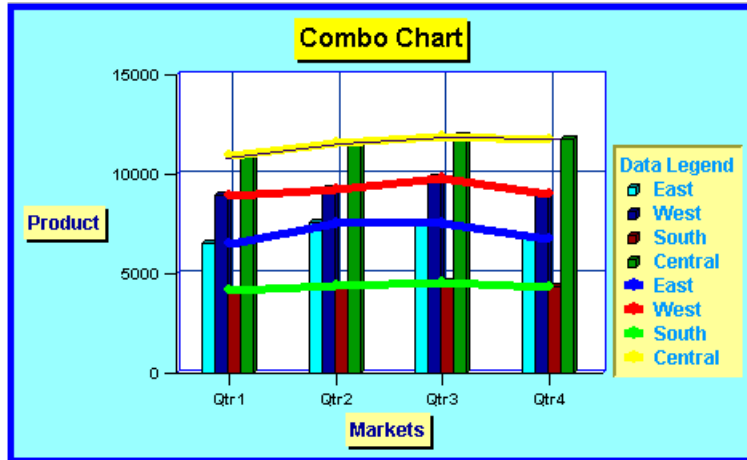
Pie Charts

A pie chart shows one data set segmented in slices of a pie. Properties for the following items are supported for the pie chart:

● Appearance

● Legend

● Element Style

● Pie

The following example shows a pie chart that displays quarterly data for the data set for East, West, South, and Central.

Figure 5   Sample Pie Chart
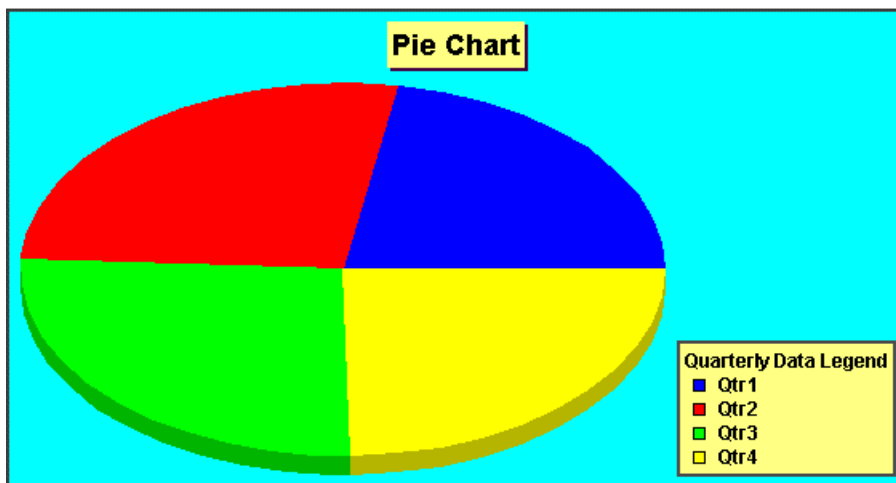
Formatting Charts

You format charts to customize their appearance and layout in your reports. You can also format charts to portray data using different chart types, including bar charts or combo charts. You make formatting changes to charts in the Format Chart dialog box. You access this dialog box from the Chart Properties property sheet.

For additional information on the Format Chart dialog box, see the following topics:

Defining Chart Data

You define chart data using the Chart Properties property sheet. You can identify, from the controlling grid, the rows and columns that contain the data to display. You can reference data or formula rows and columns from the controlling grid by selecting contiguous or non contiguous rows and columns for the data range. You can also include or exclude auto calculations from the data set.

If you are designing a line, bar, or combo chart, you can reference multiple rows or columns from the grid. If you are designing a pie chart, you can reference any single row or column from the grid. When you define a combo chart, you specify the data rows and columns for the bar and line.

➤ Charts display aggregate rows or aggregate columns that expand. For example, if you specify row 1 and row 1 contains a function that retrieves 10 child members, the chart displays 10 data sets, or one data set for each child member.

➤ To define chart data:

1 **Open a report and create a grid and a chart.**

2 On the **Chart Properties** property sheet, select the type of chart to design (bar, line, pie, or combo) from the **Chart Type** drop-down list. The following figure shows the options on the Chart Properties property sheet. For more information, see Appendix A, "Property Sheet Help."

Figure 6   Chart Properties Property Sheet
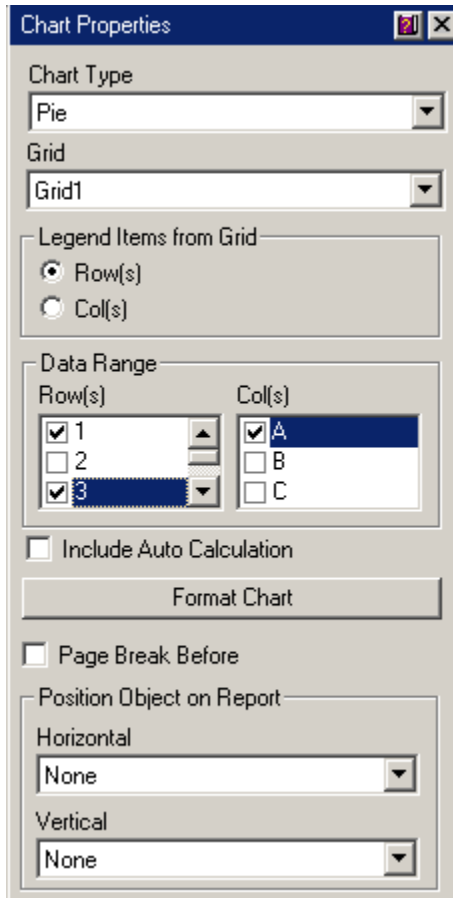
Note: When you are formatting a combo chart, the Chart Properties property sheet displays range selection options for data on the line and bar charts.

3 From the **Grid** drop-down list, select the name of the grid for this chart to reference. The grid must exist on the current report.

4 For **Legend Items from Grid**, select **Rows** to reference row data or **Columns** to reference column data.

5 Specify the range of data to display in the chart for all chart types (bar, line, combo, or pie). In the **Data Range** list boxes, select the rows to include from the **Rows** list of check boxes and the columns to include from the **Columns** list of check boxes.

Note: You can specify contiguous or non contiguous rows and columns when selecting a data range.

6 Optional: To include auto calculations from the data set, select the **Include** Auto Calculation check box.

7 Optional: To insert a page break before the chart, select the Page Break Before check box.

8 Optional: Modify the horizontal and vertical positions for the object using the drop-down list boxes for **Position Object on Report**. For more information, see "Positioning Charts on Reports" on page 76.

9 To view the chart with data, select **File then, Print Preview** or **File then, Web Preview**.

Using the Format Chart Dialog Box

You make formatting changes to charts by clicking the Format Chart button in the Chart Properties sheet. The tabs that are displayed on Format Chart depends on the type of chart you select from the Chart Properties property sheet. For example, if you select a pie chart, the dialog box includes a Pie Options tab but not a Bar Options tab.

Figure 7   Format Chart Dialog Box - Bar Chart
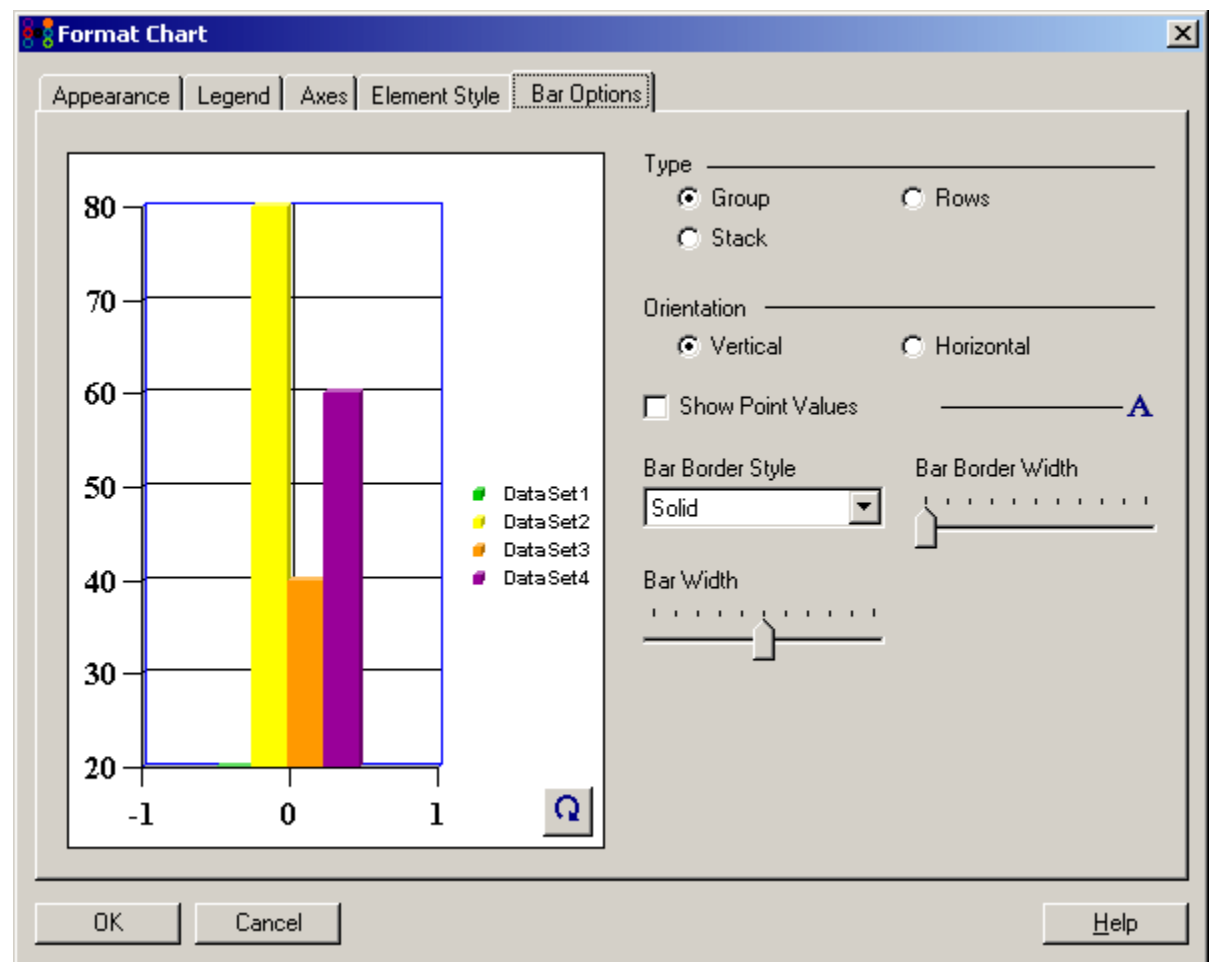
Note: Depending on the type of chart you are using, certain controls on the Format Chart dialog box may be disabled.

Table 16 describes the Format Chart dialog box tabs.

Table 16   Format Chart Dialog Box Tabs

Tab	Description
Appearance	You use the Appearance tab to specify a title for the chart, a chart border, font, gridlines, gridline style, gridline color, and grid background color for all chart types. You can indicate a depth for the chart grid. The Appearance tab also provides a preview of your chart.
Legend	You use the Legend tab to specify legend properties for all chart types. You can specify the location of the legend on the chart and define the legend title. You can set the font, font style, font size, and text effects for the legend title. The default setting for suppress repeating labels is off, but you can enable the option to inherit settings from the grid. For more information, see "Defining a Chart Legend Title" on page 78.
Axes	You use the Axes tab to specify axis properties, including metadata, primary, and secondary axis titles and the axis labels. You can indicate primary and secondary axis labels and specify font options for both. You can also specify data labels for the primary and secondary axis using a default or custom range of values. You can specify font options, such as font, font style, font size, and text effects. **Note:** You can provide a secondary axis title label when working with bar, combo, and line charts. These titles and labels display a value between zero and 100, representing a percentage. If you are working with combo charts, you can show data labels for the secondary axis using a default or custom range of values. You can show metadata labels and specify a font angle for display of the labels. You can also modify other font options for metadata labels. For more information, see "Defining Chart Axis Titles" on page 79. **Note:** You can define axis properties for all chart types *except* pie charts.
Element Style	You use the Element Style tab to specify attributes such as bar and pie fill, line style, line marker style, marker size, and line width for data sets, depending on the chart type. For example, you specify pie fill only for a pie chart. You can specify a bar shape for bar and combo charts. You select each data set and specify a pattern, style, color, and shape to apply to it. You can specify up to two colors to use with each pattern or fill specification. You can toggle between the two different colors when applying color to the bars in a chart.
Line Options	When formatting a line chart, you use the options on the Line Options tab to specify the type of line (rows, percent, or stacked-label display). You can also show point values to display the values in your chart and set font options for these values. The Line Options tab provides a preview of your line chart as you modify the formatting.
Bar Options	When formatting a bar chart, you use the Bar Options tab to specify the type of bar (group, stack, or rows) and the orientation (vertical or horizontal) of the bar chart. You can specify a bar width (zero to 100) for the bars in the chart. You can select a bar border style and width (zero to 20). You can show point values to display the data values in your chart and set font options for these values. The Bar Options tab provides a preview of your bar chart as you modify the formatting.
Line Options and Bar Options	When formatting a combo chart, the Format Chart dialog box includes a Line Options tab and a Bar Options tab. Consult the Line Options tab and Bar Options tab descriptions in this table for information about the tabs. **Note:** When you are formatting a combo chart, the Chart Properties property sheet displays range selection options for data on the line and bar charts.
Pie Options	You use the Pie Options tab to specify formatting options for a pie chart. You can modify the angle of the pie chart, specify a separation distance (which applies to the first slice of the pie chart only), and select slice values (percent, data, or label) to display in the pie chart. You can also format the font options for these values. You can indicate the position (exterior or radial) for the slice values. You can specify a slice border style (solid, dotted, dashed, or dotdashed) and a border width (zero

Tab	Description
	to 20) for the slice. The Pie Options tab provides a preview of your pie chart as you modify the formatting options.

Formatting Fonts in Charts

When working with charts, you can format fonts to customize their appearance. Font formatting options include font selection, font size, color, and font angle (zero to 315 degrees, in increments of 45 degrees).

You can format fonts by clicking the Format button, **A**, which is displayed throughout the tabs located on the Format Chart dialog box.

Note: You can preview font selection options in the Preview window in the Format Dialog Box.

Figure 8   Format Dialog Box
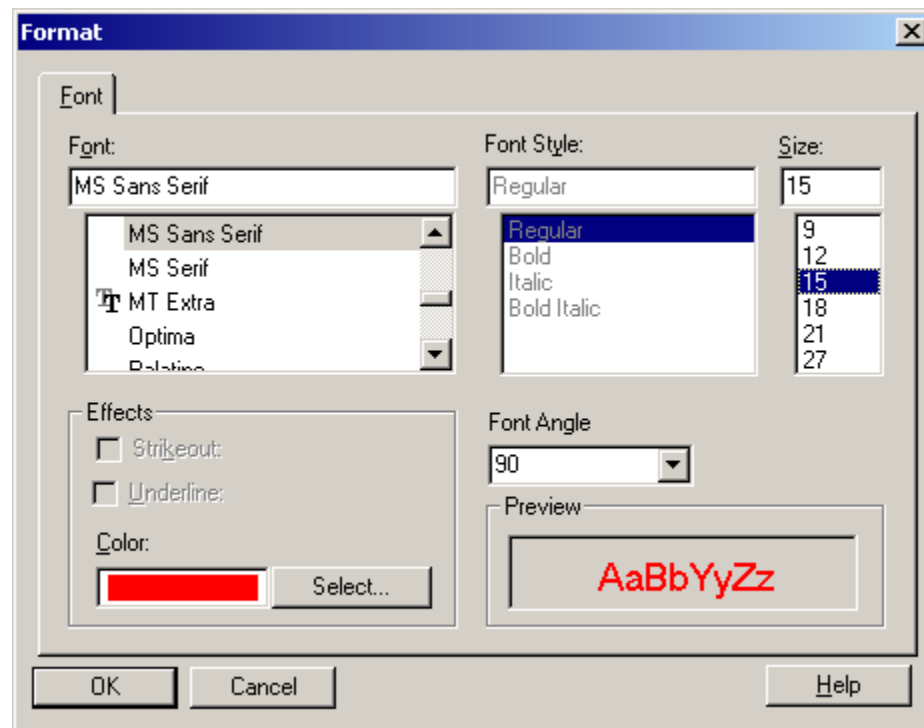
The Format dialog box enables you to preview your font option selections before returning to the chart. For more information on formatting fonts, see "Modifying Font Options" on page 170.

Formatting Chart Border and Background Options

You can format the chart border and background using the Borders and Background dialog box.

You access this dialog box by clicking the Borders and Background icon, ▫, which is displayed throughout the Format Chart dialog box.

Borders and background format options include border type, border color, background color, and border width.

Figure 9   Borders and Background Dialog Box
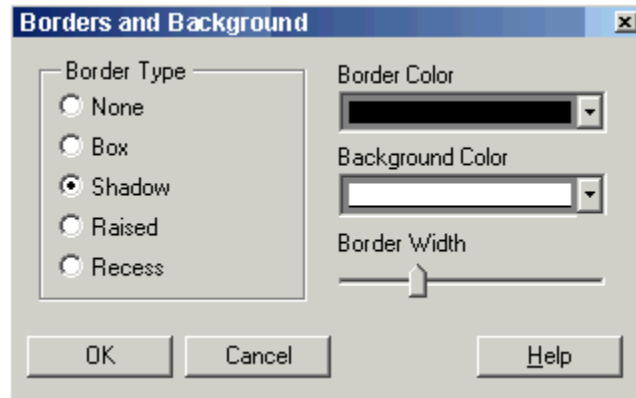
Formatting Bars in Bar and Combo Charts

You can display bars in a bar or combo chart by grouping data sets and specifying their orientation on the chart. You can also display point values in your bar or combo chart. You can modify the shapes and widths of bars and bar borders.

Use the following guidelines to specify how bars are displayed in your charts:

- Vertical orientation starts the bars on the horizontal axis and displays the bars vertically.
- Horizontal orientation starts the bars on the vertical axis and displays the bars horizontally.
- You can display bars in three dimensions. The third dimension depth represents the pixel depth of the 3D effect or shadow.
- The bar width represents the relative width of the bar as a percentage of available space. A smaller number results in more space between bars.
- The bar shape represents the shape of the displayed bars.
- You can apply shading (pattern and color) by data set using the Element Style tab of the Format Chart dialog box. For more information, see Table 16 on page 70.

➤ To format bars in bar and combo charts:

1   Open a report and create or select a bar or combo chart.

2   On the Chart Properties property sheet, click the **Format Chart** button.

3   Select the **Bar Options** tab.

4   Select a **Type** option:

- To display bars side-by-side, select **Group**.

- To display bars stacked vertically bottom-to-top, select **Stack**.

- To display the bars front-to-back, select **Rows**.

5   Select an **Orientation** option:

- To display the bars vertically on the horizontal axis, select **Vertical**.

- To display the bars horizontally on the vertical axis, select **Horizontal**.

6   To show the numerical value or data that the bar represents, select the **Show Point Values** check box. The value is displayed within the bar.

7   Click the **Font** button, , to set font options for the bar values.

8   To specify a style to be applied to the border of the bars in the chart, select **Solid, Dotted, Dashed,** or **DotDashed** from the **Bar Border Style** drop-down list.

9   To alter the width of the bars, use the slide tool in the **Bar Width** box.

10   To increase or decrease the width of the bar borders, use the slide tool in the **Bar Border Width** box.

11   Click **OK**.

Note: You can define styles for the bars representing the current data set. For more information, see "Defining Styles for Data Sets" on page 77.

Formatting Lines in Line and Combo Charts

You can specify display options for lines in line and combo charts. For example, you can display lines in separate rows, stacked as a percentage of the total of all values, or stacked as absolute values.

➤   To format lines in line and combo charts:

1   Open a report and create or select a line or combo chart.

2   On the Chart Properties property sheet, click the **Format Chart** button.

3   Select the **Line Options** tab.

4   Select one of the following line types:

- To display the line sets in separate rows, select **Rows**. For example, if you define the 3D depth as nonzero, the lines are displayed in separate rows, from front to back.

- To display the line sets stacked on top of each other, normalized to 100%, select **Percent**. As each line set is drawn, its values are added to previous values displayed and are shown as percentages of the total of all values.

- To display the line sets stacked, select **Stack**. As each line set is drawn, its values are added to previous values. Select one of the following from the drop-down list:

  ❍   To show pop-ups with accumulated values, select **Total Value**.

❍ To show pop-ups as individual item values, select **Segment Value**.

5 To show the numerical value or data that the line represents, select the **Show Point Values** check box. The value is displayed on top of the line.

6 To set font options for the point values of the lines, click the **Font** button, $\mathbf{A}$.

7 Click **OK**.

Note: You can define styles for the lines representing the current data set. For more information, see "Defining Styles for Data Sets" on page 77.

Defining Combo Chart Options

A combo chart combines a line chart and a bar chart. Typically used to contrast data sets, combo charts employ bar and line options and are set with the same variables as bar charts and line charts.

When you are formatting a combo chart, the Format Chart dialog box includes the Line Options tab and Bar Options tab. For more information, see Table 16 on page 70. For information about defining bar options for a combo chart, see "Formatting Bars in Bar and Combo Charts" on page 72. For information about defining line options for a combo chart, see "Formatting Lines in Line and Combo Charts" on page 73.

Formatting Pie Charts

When creating a pie chart, you can specify the starting angle for the first pie slice, the level of separation between pie slices, the position and type of pie slice labels, and the slice border style and width. You can also set font options including font, font size, effects, and angle for the textual display of the slice values.

➤ To format a pie chart:

1 Open a report and create or select a pie chart.

2 On the Chart Properties property sheet, click the **Format Chart** button.

3 Click the **Pie Options** tab.

4 To specify the angle of the first pie slice, use the slide tool for **Pie Angle**. The angle is measured in degrees from 0 to 360, counterclockwise, with 0 degrees pointing to the 3 o'clock position.

5 To indicate the distance between the pie slices, use the slide tool for **Separation**. Moving the slide tool to the left makes the space between slices smaller; moving the slide tool to the right increases the space between slices.

6 Select a **Show Slice Values as** option:

● To show data values as a percentage, select Percent.

● To show the absolute value of the pie chart data, select Data.

● To display the data value as a label, select Label.

7   To set font options for the slice values shown in the chart, click the **Font** button, ![A].

8   Select a **Position** option:

- To show the slice values outside of the pie chart, select **Exterior.**

- To show the slice values inside of the pie chart, select **Radial.** Use the slide tool to adjust the location of the data value inside of the slice.

9   From the **Slice Border Style** drop down list, select a style to apply to the border of the slices in your pie chart: solid, dotted, dashed, or dotdash.

10 To indicate the width of the borders for the pie chart slices, use the slide tool for **Slice Border Width**. The maximum width is 100.

11 Click **OK.**

> **Note:** You can define styles for the slices of the pie that represent the current data set. For more information, see "Defining Styles for Data Sets" on page 77.

Setting Background Options for a Chart

You can set background options for a chart, such as a border, gridlines, gridline color, gridline style, and grid background. You can also set the grid depth.

➤ To set background options for a chart:

1   Open a report and select a chart.

2   From the Chart Properties property sheet, click the **Format Chart** button.

3   Select the **Appearance** tab.

4   **Optional:** To place a border around the chart, select the **Chart Border** check box.

5   Click the **Borders and Background** icon, ![icon], to format the border and background of the chart.

6   To modify the gridlines, gridline color, style, or background, select an option from the drop-down list boxes:

- To specify which gridlines to consider for the current format (both, vertical, horizontal or none), select an option from the **Gridlines** drop-down list.

- To define a style (solid, dotted, dashed, dotdash, or bar) for the gridlines, select an option from the **Gridline Style** drop-down list.

- To define a color for the gridlines, select an option from the **Gridline Color** drop-down color palette.

- To define a background color to display behind the gridlines, select an option from the **Grid Background** drop-down color palette.

> **Note:** When setting background options for a pie chart, these options are not available.

7   **Optional**: Modify the **Grid Depth** using the slide tool provided.

8   Click OK.

Positioning Charts on Reports

You can specify a chart's position on the report and how it is displayed when printed. You can specify a position relative to the grid, a position relative to other report objects, or no position at all. If you do not specify a position, the chart remains in the location where it was originally created on the report.

➤ To position a chart on a report:

1 Open a report and select a chart.

2 On the Chart Properties property sheet, modify the horizontal and vertical positions for the object using **Position Object on Report**:

    a. From the **Horizontal** drop-down list, select one of the following horizontal positions:

- Select **None** to anchor this chart at its current position in the report. The chart is printed in this position.

- Select **Relative** if you want the chart to maintain a distance relative to other report objects located to the left of it. This option assures that the chart is not printed on top of another report object.

- Select **Left** to position the chart against the left margin of the report.

- Select **Center** to position the chart in the center of the report.

- Select **Right** to position the chart against the right margin of the report.

    b. In the **Vertical** drop-down list, select one of the following vertical positions:

- Select **None** to anchor this chart at its current position in the report. The chart is printed in this position.

- Select **Relative** if you want the chart to maintain a distance relative to other report objects located above it. This option assures that the chart is not printed on top of another report object.

- Select **Top** to position the chart at the top of the report.

- Select **Middle** to position the chart in the middle of the report.

- Select **Bottom** to position the chart at the bottom of the report.

Defining Gridlines

You can display gridlines behind a bar, line, or combo chart. You can show or hide gridlines, and you can specify gridline color, style, and background color.

➤ To define gridlines:

1 Open a report and select a chart.

2 On the Chart Properties property sheet, click the **Format Chart** button.

3 Select the **Appearance** tab.

4 From the **Gridlines** drop-down list, select one of the following options:

- **Horizontal** to show horizontal gridlines

- **Vertical** to show vertical gridlines

- **Both** to display horizontal and vertical gridlines

- **None** to hide gridlines

5 **Optional:** To specify a style (solid, dotted, dashed, dotdash, or bar) for the gridlines, click **Gridline Style** and select an option from the drop-down list.

6 **Optional:** To specify a color for the gridlines, click **Gridline Color** and select a color from the drop-down color palette.

7 **Optional:** To specify a background color to display behind the gridlines, click **Grid Background** and select a color from the drop-down color palette.

Defining Styles for Data Sets

You can define styles for data sets in charts. You can define a pattern and color for each data set in your report. The specified shading and patterns are applied to each respective data set to differentiate values in the chart.

➤ To define styles for a data set:

1 Open a report and select a chart.

2 On the Chart Properties property sheet, click the **Format Chart** button.

3 Select the **Element Style** tab.

4 Select a data set.

5 Select a fill pattern for the selected data set.

6 From the **Color 1** and **Color 2** drop-down list boxes, select two colors for contrasting the pattern.

   Note: To toggle between the two different colors selected, click the Toggle Color icon,.

7 Select a line style, line marker style, marker size, and line width to apply to the data set.

8 Click **OK.**

Resizing and Moving Charts

You can change the size of a chart and move a chart to another location in a report.

➤ To resize a chart:

1 Select a chart by clicking on that chart object.

2 Click and drag a handle, located on the perimeter of the chart, to change the size.

➤ To move a chart:

1 Click inside the chart, selecting the chart as an object.

2 Hold down the left mouse button and drag the chart to another location in the report.

Formatting Chart Titles and Labels

You can specify and format chart legend titles, chart titles, chart axes titles, and axis labels in your chart. You can also format the font and borders and background of the titles and axes you indicate. You specify chart titles and labels in the Format Chart dialog box.

For more information on defining chart titles and labels, see the following topics:

- "Defining a Chart Legend Title" on page 78
- "Defining a Chart Title" on page 79
- "Defining Chart Axis Titles" on page 79
- "Defining Axis Labels" on page 80

Defining a Chart Legend Title

You define a legend to identify and describe the data sets used in your chart. You can specify font and background options and border color. You can also specify the placement location for the legend within the chart boundaries.

You can also suppress repeating labels, through which you can inherit settings from the referenced grid. Repeating labels are axis labels that repeat in a chart if you do not suppress them.

Note: Chart legend options are available for all chart types.

➤ To define chart legend options:

1 Open a report and select a chart.

2 On the Chart Properties property sheet, click the **Format Chart** button.

3 Select the **Legend** tab to display the formatting and placement options for legends.

4 Select the **Place Legend** check box to select the vertical and horizontal positions of the chart legend relative to the chart boundaries. Vertical positioning options include Top, Middle, and Bottom. Horizontal positioning options include Left, Center, Right.

5 Click the **Borders and Background** icon, ⬜, to format the border and background of the legend.

6 In the **Legend Title** text box, enter a title for the legend.

7 Click the **Font** button, 𝐀 to set font options, including font, font size, effects, and angle, for the legend title and its labels, then click **OK**.

8 To suppress X-axis labels that would otherwise repeat, select from the following options for **Suppress Repeating Labels**: Inherit Settings from Grid, On, or Off.

9 Click **OK**.

Defining a Chart Title

When defining chart appearance, you can specify a title and then select font and background options for the title.

➤ To define a chart title:

1 Open a report and select a chart.

2 From the Chart Properties property sheet, click the **Format Chart** button.

3 Select the **Appearance** tab.

4 In the **Chart Title** text box, enter a title for the chart.

Tip: When defining legend, axes or chart titles, you can print the title on multiple lines using a \n in the title. You can use a \'s to indicate a possessive apostrophe in the legend, axes or chart title. You can combine these commands to use apostrophes with titles that span multiple lines.

5 **Optional:** Click the **Font** button, **A**, then set font options and click **OK**.

6 **Optional:** Click the **Borders and Background** icon, ☐, then specify border and background options for the chart title, and click **OK**.

7 To place a border around the chart, select the **Chart Border** check box.

8 **Optional:** Click the **Borders and Background** icon, ☐, then specify border and background options for the chart border and click **OK**.

9 Click **OK**.

Defining Chart Axis Titles

You can specify a metadata title and primary and secondary axis titles, to identify the data that is displayed on the axes of your chart. You can also specify font options, including font size, color, and font angle. You can label your metadata using the same formatting options.

You can also specify font options, including font size, color, and font angle. You can label your metadata using the same formatting options.

You can specify color, border, and background options for the title of each axis.

Note: Chart axis options are available for bar, line, and combo charts only.

➤ To define a chart axis title:

1 Open a report and select a chart.

2 On the **Chart Properties** property sheet, click the **Format Chart** button.

3 Select the **Axes** tab to display the formatting options for axes, then perform one or more of the following actions:

- In the **Metadata Title** text box, enter the title for the horizontal axis.

- In the **Primary Axis Title** text box, enter the title for the primary vertical axis. This is displayed to the left of the chart.

- In the **Secondary Axis Title** text box, enter the title for the secondary vertical axis. This is displayed to the right of the chart.

4 Click the **Font** button, **A**, to set font options and then click **OK**.

5 Click the **Borders and Background** icon, ☐, then specify border and background options for the axis title and click **OK**.

6 Click **OK**.

Defining Axis Labels

You can define and format labels for the primary and secondary axis in a chart. For a combo chart, you can specify and format a secondary axis label. You can also display and format metadata labels.

Note: A primary or secondary axis label enables you to specify a custom range of values on the axis.

➤ To define axis labels:

1 Open a report and select a chart.

2 On the **Chart Properties** property sheet, click the **Format Chart** button.

3 Select the **Axes** tab and perform one or more of the following actions:

- To use the default range of values on the primary axis, select the check box for **Primary Axis Label.**

- To enter a range of values, including minimum, maximum, and step, on the primary axis, select the check box for **Primary Axis Label** and the **Custom Range** check box.

  Note: You can use the custom range to change the starting and ending numbers of your axis and the numeric intervals. For example, you can display values 40 through 60 at three step intervals by entering 40, 60, and 3 in the Min, Max, and Step check boxes, consecutively.

- To use the default range of values on the secondary axis of a combo chart, select the check box for **Secondary Axis Label.**

- To enter a range of values, including maximum, minimum, and step, on the secondary axis of a combo chart, select the check box for **Secondary Axis Label** and the **Custom Range** check box.

- To display the percentage of the default range of values on the secondary axis in a bar of line chart, select the check box for **Secondary Axis Label.**

- To enter a range of values, including minimum, maximum, and step, on the secondary axis in a bar or line chart, select the check box for **Secondary Axis Label** and the **Custom Range** check box.

4 Click the **Font** button, ![A], to set font options for the data labels, and then click **OK**.

5 Click the **Borders and Background** icon, ![icon], then specify border and background options for the data labels, and then click **OK**.

6 To show the metadata labels with a standard display, select the **Show Metadata Labels** check box.

> **Note:** Financial Reporting implements staggered labels as a default to ensure the even distribution of data on report axes.

7 Click the **Font** button, ![A], to set font options for the metadata labels, then click **OK**.

Viewing Charts

You can print and print-preview the chart rendering in Reporting Studio and Financial Reporting. If you installed the Adobe SVG Viewer, charts are rendered in enhanced quality for the following output.

- When viewed in PDF in Financial Reporting.

- When exported to PDF in Reporting Studio.

> **Note:** The enhanced chart output quality when using the Adobe SVG Viewer is only supported when using Adobe Distiller for PDF generation. The enhanced chart output quality is not supported when using GhostScript for PDF generation.

For information on downloading the Adobe SVG Viewer, see the *Oracle Hyperion Enterprise Performance Management System Installation Start Here* document.

4

Building Reports

To build reports, you create a report design by adding report objects to the design and defining the report object properties. Report objects include text boxes, grids, images, and charts. When you create a report, you start with a blank design area. You can modify the blank report as necessary.

Adding Report Objects

Report objects are defined as text boxes, grids, charts, or images defined in the design area of a report. Adding report objects to your report involves specifying the report layout and object properties, and selecting the data content. You can also insert report objects previously stored in the repository. Report objects can be used in multiple reports.

After you add a report object, you can assign properties to it such as format options. Format options include font, alignment, spacing, shading, and positioning.

➤ To add a report object:

1 Select **File** then, **New** then, **Report**.

2 Add report objects to your report using the "Report Objects" on page 19.

3 Save your report by selecting File then, Save.

Using Linked and Local Objects

Report objects can be saved to the repository and serve as a resource for other reports. They can be inserted into other reports as linked or local (unlinked) objects and used "as is" or customized.

Linking objects to a source object can save time and effort. By updating one source object, you update all reports that are linked to this source object.

The option to link or not to link is specified while performing the following functions:

- Saving a report object to the repository
- Inserting an object from the repository into your report. When you insert a saved object from the repository as a linked object, you can clear the link after it is copied into the report. However, you cannot reverse this action.

Linked Objects

Linked objects enable you to save an object in a report and in the repository. You can link the object in the report to the source object in the repository so that modifications to the source object are reflected in the object that exists in the report.

When you insert a source object into a report, modify it, then link it to the source object when saving the object, the changes are reflected in the source object and all objects that are linked to it in other reports. For an example of creating a linked report object, see "Saving Text Objects" on page 87.

For example, suppose you insert into your report a text object, Company_Logo, from the repository. You then modify the text in Company_Logo and save the object, specifying a link to the source object. The revised Company_Logo text object overwrites the source object in the repository, and any new report or existing report that is also linked to the Company_Logo source object reflects the modified text.

The following table outlines the objects that can be linked to the repository and included in your reports, and provides the location of procedural information for each object type in Financial Reporting.

Table 17   Using Linked Objects

Object	Link to Source Object Procedural Information
Grid	You can link to source object via the Save Object dialog box. For more information, see "Saving Grid Objects" on page 90.

Object	Link to Source Object Procedural Information
Row and column template	You can link to source object via the Save Object dialog box. Once linked the Link to Source Object is displayed on the Row and Column Template Properties property sheet. For more information, see "Creating a Row and Column Template" on page 110.
Chart	You can link to source object via the Save Object dialog box. For more information, see "Inserting Charts" on page 93.
Text box	You can link to source object via the Save Object dialog box. For more information, see "Saving Text Objects" on page 87.
Image	You can link to source object via the Save Object dialog box. For more information, see "Saving Image Objects" on page 92.

Local Objects in Financial Reporting

When you save a repository object to a report without linking it to the source object, the local object (the object on the current report) is not linked to the saved object in the repository. Changes to the local object do not affect the object saved to the repository, and changes to the repository object do not affect the local object in the report.

This option enables you to customize your report's copy of the report object to suit your individual requirements.

The following figure illustrates the behavior of linked and local objects in a report.

Figure 10   Linked and Local Report Objects
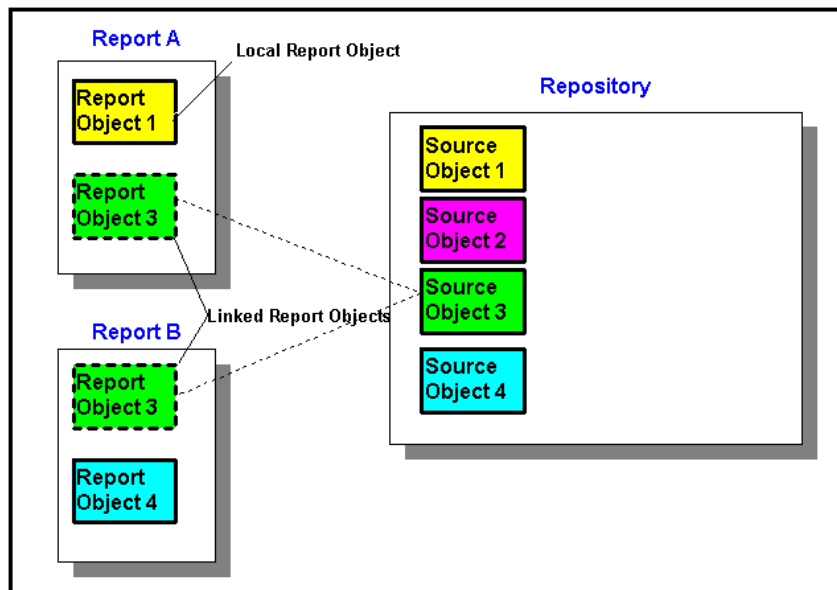
In Report A, Report Object 1 is copied from the repository as a local object. Changes made to the local report object are not reflected in the source object. Report Object 3 is linked to its source object in the repository. Changes made to Report Object 3, when saved, are reflected in the source

object and other reports that are linked to that source object, including Report Object 3 in Report B.

Adding Text Objects

Text objects are report objects that can contain text or text functions. For example, you can enter a label, description, or a function that retrieves the current date in a text box. For more information about text functions, see "Text Functions" on page 208. You can enter multiple paragraphs of text. Like other report objects, you can move, resize, or reposition the area containing the text.

You can create a new text object or insert an existing text object into the report. New text objects are empty areas where you can enter text, text functions, or rich text from an editor or word processor. Text objects are stored in the repository and can be inserted into numerous reports. You might want to add the same text object, for example, in all your report designs.

➤ To add a text object:

1 Select File then, Open.

2 Open a report and select **Insert then, Text**.

3 Point to where you want to position the upper left corner of the text box, click and drag to the desired size, then release the mouse button.

4 Click inside the text object, and enter the text directly in the text box.

➤ To insert a text box from the repository:

1 Select File then, Open.

2 Open a report and select **Insert then, Saved Object**.

3 In the **Type** drop-down list, select **Text**.

4 Select the directory where you want to search for the text object, then select the desired text object.

5 Perform an action:

   ● To use the text object as a linked object, select **Link to Source Object**.

   ● To use the text object as an unlinked object, deselect **Link to Source Object**. This is the default option.

6 Click **Insert**.

Modifying Text Objects

You can modify the properties of a text object. This includes inserting a function in the text object, modifying the vertical or horizontal position of the text box, and selecting the autosize function, which enables the display of all of the text contained in the text object. You can also select the Page Break Before check box, which displays the text box on the top of the next page

when you preview or print the report. You can also link the current text object to a source object in the repository.

Note: The Link to Source Object check box is enabled after the text object is saved to the repository and the Link to Source Object check box is selected.

➤ To modify a text object:

1 Select the text object.

2 Using the Text Properties sheet, modify the properties of the object. To modify the text, select **Format then, Font.**

Tip: To resize the text object, drag a handle. To move the text object, drag inside the text object border.

Saving Text Objects

When you save a text object, you can create a link between that text object and the source object in the repository. Text objects can be saved to the repository for reuse when building reports. Once they are saved to the repository, they can be inserted into a report as linked or unlinked objects.

Note: Changes to a linked object are not saved when you save and close your design.

➤ To save the text object to the repository:

1 Click the text object, then select **File then, Save Object.**

2 Select a folder or create a folder.

3 Perform the following actions:

    a. In the Name text box, enter the report text object name. You can use upper and lowercase letters, spaces and numbers. The program does not accept special characters such as \ / %, ? + < > | ' " *.

    b. In the **Description** text box, enter the description of the text object.

4 Perform an action:

● To create a link from the text object in the report to the source object in the repository, select **Link to Source Object.**

● To save without creating a link from the text object in the report to the saved object in the repository, clear **Link to Source Object**.

    Note: For a description of linked objects, see "Using Linked and Local Objects" on page 84.

5 Click **Save** to save the text object to the repository. When you save a text object, only the specified object is saved, not the entire report design.

Adding Grids

Grids are tables that can contain data from external database connections. You can add a grid to your report, define its dimension layout, select members, and then format the grid. You can also insert an existing grid to reuse a preformatted grid design. You can use text, dimensions, members, and formulas to define the grid content. You can also hide a grid. For example, you might want to display a chart in a report, but not the grid associated with the chart.

You define the dimension layout for the grid by specifying a database connection, then dragging the available dimensions from the Point of View (POV) frame into the Rows, Columns, and Pages frames. The dimensions that are not placed in the Rows, Columns, or Pages frames are displayed in the user POV bar for that grid. You can layer multiple dimensions on a row, column, or page. For example, you might want to place the Scenario and Time dimensions on the same axis to show actual and budget data over a period of time.

The following figure shows the Dimension Layout dialog box. This is where you define the grid's dimension layout by dragging the dimensions from the Point of View frame into the Pages, Rows, and Columns frames.

Figure 11   Dimension Layout Dialog Box
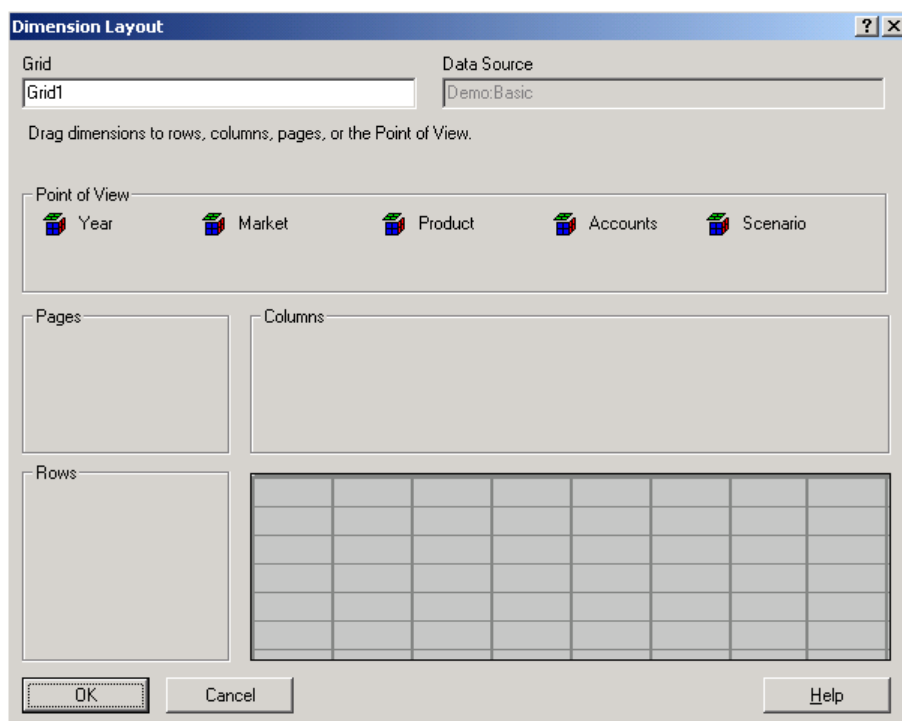
Note: If the selected database connection for the grid contains attribute dimensions, they are displayed above the Point of View frame. Like the dimensions, you can drag attribute dimensions into the Point of View frame or the Rows, Columns, or Pages frames.

The following table describes the Dimension Layout dialog box items:

Table 18   Dimension Layout Dialog Box Items

Item	Description
Grid	The grid name. You can accept the system default name or enter a new grid name. This option is available only if the grid is not linked to a source grid in the repository.
Attribute Dimensions	A type of dimension that enables analysis and is based on the attributes or qualities of the members of its base dimension. You can drag attribute dimensions from this frame into the Point of View, Pages, Rows, or Columns frames. Attribute dimensions are only supported for Essbase.
Point of View	The dimensions that define the point of view for the grid. The Point of View identifies the data to retrieve in the grid. You can drag dimensions from this frame to the Pages, Rows, or Columns frames.
Pages	The third axis on a grid. You can drag into this frame, the dimensions to use on the Page axis from the Attribute Dimension and Point of View frames.
Columns	A vertical display of information in a grid or table. You can drag into this frame the dimensions to use on the column.
Rows	A horizontal display of information in a grid or table. You can drag into this frame the dimensions to use on the row axis from the Attribute Dimension and Point of View frames.

After you define the dimension layout, you can select the members to use for each dimension. For more information, see "Assigning Members to Data Rows or Columns" on page 42 and "Assigning Members to the Page Axis" on page 43.

When you add a new grid, the system assigns a default name to the grid. You can rename the grid in the Dimension Layout dialog box or when you save it. The default name assigned is Grid*n*, where *n* is a system-assigned identification number. For example, if you save a grid that is the sixth system-named grid saved in the report, the default name is Grid6. The system uses the grid name when a function or chart references the grid. For example, if you design a chart to graphically display the data from a grid, the chart properties must reference the grid by its name.

➤ To add a new grid into your report:

1 Open a report and select **Insert then, Grid**.

2 Point to where you want to place the upper left corner of the grid and drag to the desired size, then release the mouse button.

3 In the **Select a Database Connection** dialog box, select a **Database Connection.**

4 Click **OK.** The **Dimension Layout** window is displayed.

5 Drag the dimension icons from the **Attribute Dimensions** frames, if they exist, and Point of View frames into the Pages, Rows, or Columns frames, then click **OK.**

Note: You can place multiple dimensions into the Rows, Columns, or Pages frames.

➤ To insert an existing grid into your report:

1 Open a report and select **Insert then, Saved Object**.

2 In the **Type** drop-down list, select **Grid**.

3 Select the directory where you want to search for the grid object, then select the desired grid object.

4 Perform an action:

- To use the grid object as a linked object, select **Link to Source Object**.

- To use the grid object as an unlinked object, clear **Link to Source Object**. This is the default.

    Note: For a description of linked objects, see "Using Linked and Local Objects" on page 84.

5 Click **Insert**.

Modifying the Properties of Grid Objects

You can customize grid objects using the Grid Properties sheet, which contains four primary categories for modifying a selected grid: general, format, suppression, and position. You can use the general and format categories to position and format the selected grid, including dimension layout, show members, cell alignment, and borders and shading. Suppression is used to hide a grid, or values in a grid's cells. You would use positioning to modify the object's vertical or horizontal positioning on the grid. The following procedure describes how to modify the properties of a grid object.

➤ To modify the properties of a grid object:

1 Open a report and select the object to be modified.

2 Modify the object using the Grid Properties sheet. For information on customizing your grid, see Chapter 5, "Customizing Grids."

3 **Optional:** Click the **Dimension Layout** button in the Grid Properties sheet to change the dimensions on the grid's axes. If this is a linked grid, the Grid field displays the name of the grid and its path in the repository.

    Tip: To resize the grid object, drag a handle. To move the grid object, drag the grid's title bar.

Saving Grid Objects

When you save a grid object, you can create a link between that grid object and the source object in the repository. When you save the object in the repository, it can be reused by linking to another report.

Note: You must have Designer or System Administrator level security to perform this function.

➤ To save the grid object to the repository:

1 Click the grid, then select **File then, Save Object.**

2 Select a folder in which to store the grid, or create a new folder.

3 In the Name text box, enter the grid name. You can use upper and lowercase letters, spaces and numbers. The program does not accept special characters such as \ / %, ? + < > | ' " *.

4 In the **Description** text box, enter the description of the grid.

5 Perform an action:

- To create a link from the grid object in the report to the source object in the repository, select **Link to Source Object.**

- To save a grid object without creating a link from the grid object in the report to the saved source object in the repository, clear **Link to Source Object.**

    Note: For a description of linked objects, see "Using Linked and Local Objects" on page 84.

6 Click **Save** to save the grid object to the repository. When you save a grid object, only the specified object is saved, not the entire report design.

Inserting Images

Image objects are graphics or pictures that can be used in your report. The following image formats can be used:

- Bitmaps: `.bmp` and `.dib`
- Graphics Interchange Format (GIF): `.gif`
- Joint Photographic Experts Group (JPEG): `.jpg`
- Icon: `.ico` and `.cur`

You can add images to the header, footer, or body of a report. After you add an image frame with an image file to the report, you can format the image object. For more information on image formatting, see "Formatting Images" on page 196.

You can insert an image file that is stored in a file system outside Financial Reporting into the image frame, or you can insert an entire image object that is saved in Studio Explore.

Note: Image objects are saved with the report. As a result, the speed of the application may be affected based on the size of your image object.

➤ To insert a new image object located outside of Studio Explore:

1 Open a report and select **Insert then, Image**.

2 Point to where you want to place the upper left corner of the image frame, click and drag to the desired size, then release the mouse button.

3 In the **Files of type** drop-down list, select an image format.

4 Select an image file from the default Financial Reporting**bin** directory, or click the **Look in** drop-down list to search for an image file located on your file system.

5 Click **Open** to select the image file.

6 Use the Image Properties sheet to modify the image.

> **Note:** To add the image to the repository, or to save it as a linked object, select File then, Save Object. For information, see Saving Image Objects

➤ To insert an image object from the repository:

1 Open a report and select **Insert then, Saved Object**.

2 In the **Type** drop-down list, select **Image**.

3 Select the desired image object.

4 Perform an action:

- To use the image object as a linked object, select **Link to Source Object**.

- To use the image object as an unlinked object, clear **Link to Source Object**. This is the default.

> **Note:** For a description of linked objects, see "Using Linked and Local Objects" on page 84.

5 Click **Insert**.

Saving Image Objects

When you save an image object, you can create a link between that image object and the source object in the repository. Linking report objects to a source object saves time and effort. By updating one source object, you update all reports that are linked to this source object.

➤ To save the image object to the repository:

1 Select the image, then select **File then, Save Object**.

2 Specify a name and a location to where you want to save the image.

3 Perform an action:

- To create a link from the image object in the report design to the source object in the repository, select **Link to Source Object.**

- To save without creating a link from the image object in the report design to the saved object in the repository, clear **Link to Source Object.**

4 Click **Save** to save the image object to the repository. When you save an image object in a report, only the specified object is saved, not the entire report design.

Inserting Charts

Charts enable you to display data from a grid on the report. When you insert a chart in a report, the chart retrieves data from the specified grid on the current report. You can insert bar, pie, line, and combo (bar and line) charts.

For descriptions of each type of chart, see "About Charts" on page 63. For information on designing charts, see Chapter 3, "Customizing Charts."

➤ To insert a new chart object:

1 Open a report and select **Insert then, Chart**.

2 Point to where you want to place the upper left corner of the chart, click and drag to the desired size, then release the mouse button.

3 Modify the chart using the Chart Properties sheet.

➤ To insert a chart object from the repository:

1 Open a report and select **Insert then, Saved Object**.

2 In the **Type** drop-down list, select **Chart**.

3 Select the desired chart object.

4 Perform an action:

   ● To use the chart object as a linked object, select **Link to Source Object**.

   ● To use the chart object as an unlinked object, clear **Link to Source Object**. This is the default.

   Note: For a description of linked objects, see "Using Linked and Local Objects" on page 84.

5 Click **Insert**.

Saving Chart Objects

When you save a chart object, you can create a link between that chart object and the source object in the repository. Linking report objects to a source object saves time and effort. By updating one source object, you update all reports that are linked to this source object.

➤ To save the chart object to the repository:

1 Select the chart, then select **File then, Save Object**.

2 Specify a name and a location to where you want to save the chart.

3 Perform an action:

   ● To create a link from the chart object in the report design to the source object in the repository, select **Link to Source Object.**

   ● To save without creating a link from the chart object in the report design to the saved object in the repository, clear **Link to Source Object**.

4 Click **Save** to save the chart object to the repository. When you save a chart object objects in a report, only the specified object is saved, not the entire report design.

Creating Headers and Footers

You can design a custom header and footer in your report using inches or centimeters as your unit of measure for the height. The header is located immediately below the top margin, and the footer is located immediately above the bottom margin. Headers and footers can be used to add a description, add graphics, or insert text functions such as GetCell, Date, and Page. For more information, see "Designing Headers and Footers" on page 97.

➤ To create headers and footers:

1 Access the Report Properties sheet by clicking an unused area of the report page.

2 In the **Header Height** text box, perform an action:

- If you want to include a header in your report, enter the height of the header.

  When you specify a height for the header and footer, the system takes into account the top and bottom margins and page size specified in Page Setup. For more information, see "Changing the Page Setup" on page 196.

- To exclude a header in your report, enter zero (0).

3 In the **Footer Height** text box, perform an action:

- If you want to include a footer in your report, enter the height of the footer.

  When you specify a height for the header and footer, the system takes into account the top and bottom margins and page size specified in Page Setup.

- To exclude a footer in your report, enter zero (0).

For information on specifying margins, paper size or viewing size, see "Changing the Page Setup" on page 196.

Positioning Report Objects

Positioning report objects involves placing objects in the desired positions in the Report Designer workspace. For example, you can position a text box on the top left of the report, and position a grid in the center of the report. How you position objects affects the online report and the printed page. You position report objects by specifying position property values or using rulers to position objects manually.

It is important for the appearance of your report to be able to position objects because report objects can change size depending on the amount of data they contain. You can set the position of a report object relative to other report objects above it and to its left. For example, if report objects above the given report object increase or decrease in size, the given report object moves as necessary to maintain the same distance between it and the other report objects.

If you do not position a report object, the report object is printed at its current location regardless of whether report objects above it or to its left increase or decrease in size.

You can also overlap objects, which enables you to organize them however you choose when laying out a report. Objects that can be overlapped include text boxes, grids, charts, and images. When overlapping objects, you can send a report object to the back (behind another object) or bring it to the front (ahead of another object).

Note: The ability to overlap objects is a design convenience only. When printing reports containing overlapping objects, objects may not print as displayed in the designer, requiring you to rearrange the objects in your report.

When working with multiple overlapped objects in the Report Designer, you can print the report regardless of your object layout. For example, a portion of a text box overlaps a chart, or layers of charts are placed on top of one another. Regardless of how you place the objects in your report, you can print the report.

➤ To position a report object:

1 Open a report.

2 Position the report objects by performing one or more of the following actions:

- To position a grid, select a grid, then select the **Position** category in the Grid Properties sheet. In the **Horizontal** and **Vertical** drop-down lists, select the grid's horizontal and vertical position on the report.

- To position a chart, select a chart, then in the Chart Properties sheet's **Horizontal** and **Vertical** drop-down lists, select the chart's horizontal and vertical position on the report.

- To position a text box, select a text object, then in the Text Properties sheet's **Horizontal** and **Vertical** drop-down lists, select the text box's horizontal and vertical position on the report.

- To position an image, select an image, then in the Image Properties sheet's **Horizontal** and **Vertical** drop-down lists, select the horizontal and vertical position on the report.

- To place the selected object ahead of other objects that it overlaps, select an object, right-mouse click, and select **Bring to front**.

- To place the selected object behind other objects that it overlaps, select an object, right-mouse click, and select **Send to back**.

    Tip: To position grid and chart objects manually, click inside the header area and drag to the desired position. To position text and image objects manually, click the object and drag to the desired position.

    Note: When clicking on a text object, it may move slightly, which may cause some position settings, such as Center, to change. To correct this, reapply the text object position.

Resizing Report Objects

You can resize report objects so they are displayed fully expanded or at a specified height and width when the report is previewed or printed. You can also enable the system to automatically increase the size of a text box and grid as more area is needed to include all resulting data. When you resize report objects, the contents remain the same size, but the space around the contents changes. For example, you can drag a handle of a grid border to reserve an amount of space to the left of the grid. When you view the grid, the area to the left of the grid remains blank.

Note: If you reduce the size of a text box or grid so that there is more content than can fit in it, scroll bars are displayed on the border of an online report.

➤ To resize a report object:

1 Open a report.

2 Resize the report objects as follows:

- To resize a text box, select the text object, then in the Text Properties sheet, select **Autosize**. The text area fully expands when you preview or print the report.

    Note: You are limited to 27 lines of text. To see all lines of text, deselect **Autosize**.

- To enable the system to horizontally and vertically expand a grid, select the grid, then select the **General** category on the Grid Properties sheet. Select **Autosize**.

    Tip: To manually adjust the size of a report object, drag a report object's handle. Use the guidelines and the ruler on the Report Designer workspace to assist in sizing report objects.

Saving Report Objects

When you save a report object, you can create a link between that source object and the source object in the repository. Saving report objects in the repository enables you to reuse them on a consistent basis. This saves time and enables you to build a library of objects to access and use when creating reports.

➤ To save report objects:

1 Click the report object, then select **File then, Save Object**.

2 Select a folder or create a new folder.

3 In the **Name** text box, enter the report object name. You can use upper and lowercase letters, spaces and numbers. The program does not accept special characters such as \ / %, ? + < > | ' " *.

4 In the **Description** text box, enter the description of the report object.

5 Perform an action to save the local report object to the repository:

- To create a link from the local object in the report to the source object in the repository, select **Link to source object.**

- To save without creating a link from the local object in the report design to the saved object in the repository, clear **Link to source object.**

6 Click **Save** to save the report object to the repository. When you save report objects in a report, only the specified object is saved, not the entire report design.

Removing Report Objects from a Report

When you remove a linked report object from a report, it is removed from only the report and not from the repository. You can still use the source report object in other reports. For information on removing report objects from the server, see Chapter 11, "Managing the Explore Repository."

➤ To remove a report object from a report, select a report object, then click **Edit, then Delete.**

Designing Headers and Footers

Headers and footers are displayed at the top and bottom of each page in a report and can be aligned to the right, left, or center. Headers and footers can include text, images, and formulas that retrieve text, such as the report name. You can also include the page number in a header or footer.

➤ To design headers and footers:

1 Open a report.

2 Click the space outside of a report object to display the Report Properties sheet.

3 Remove any report objects that are located in the header or footer area, then perform one or both of the following actions:

- To specify a header height, enter a height in inches or centimeters in the **Header Height** text box.

- To specify a footer height, enter a height in the **Footer Height** text box.

  Tip: If you do not want a header or footer, specify zero (0) for the header or footer height, respectively. The height of the header and footer defaults to zero (0) units in a blank report layout.

4 Perform either of the following actions:

- To insert text in a header or footer:

a. Select **Insert then, Text.**

b. In the header or footer area, click where you want to place the upper left corner of the text box and drag to the desired size, then release the mouse button.

c. Click inside the text box. Then, enter the exact text in the text box, or specify a formula in the text box to dynamically retrieve header or footer information. To specify a formula, add functions such as page, date, and report description, click the **Insert Functions** button in the Text Properties sheet.

- To insert an image in a header or footer:

d. Select **Insert then, Image**.

e. In the header or footer area, point to where you want to place the upper left corner of the image and drag to the desired size, then release the mouse button.

5 Set properties using the Text or Image Properties sheet.

Creating a Title Page

A title page creates a new page at the beginning of your report with the user-defined text.

➤ To create a title page:

1 Open a report to which you want to add a title page and add a text box at the top of the Report Designer workspace. For instructions on adding a text box, see "Adding Text Objects" on page 86.

2 Select a report object below the text box, then from that report object's property sheet, select **Page Break Before**.

3 Design the text for the title page using the options in the Text Properties sheet.

4 Select **File then, Print** Preview to view the title page.

Inserting Page Breaks Before Report Objects

You insert a page break before a report object to move the report object to the next page.

➤ To insert a page break before a report object:

1 Open a report and select a report object above which you want to insert a page break.

2 From the report object's property sheet, select the **Page Break Before** check box.

Viewing Report Summaries

A Report summary shows the name, the description, and the creator of a report. In addition, a report summary shows the modifier, date, and time the report was last modified.

Summary information is saved when you save the report. The following table describes the options you can select to be displayed in your report summary:

Table 19   Report Summary Display Options

Option	Description
Name	The name of the report
Description	The report description, which you can modify
Author	The user who created the report
Created On	The date and time the report was created
Last Modified By	The user who last modified the report
Last Modified On	The date and time the report was last modified
Object type	The type of object you are viewing
Location	The location to which this object is saved
Database Connections	Identifies the database connections used for this report object

➤ To view report summaries:

1   Open a report.

2   Select **File then, Summary.**

Viewing Server Information

You view server information to monitor the activity on your server. Server information consists of various statistics of your report server. The following table describes the report server statistics:

Table 20   Report Server Statistics

Statistic	Description
Reports Currently Running	The total number of reports currently running on the report server.
Total Requested This Session	The total number of reports that were requested to run since the report server was started.
Total Memory (Bytes)	The amount of memory used on the report server's virtual computer.
Free Memory (Bytes)	The amount of remaining memory available on the report server's virtual computer.
	Note: Memory is usually dynamically allocated to the virtual computer. When the memory gets too low, the system allocates more memory, which decreases the amount of free memory available on the server.
Threads - For Running Reports	The Java sub-process used to run reports. Threads are added automatically to handle additional requests, if needed. The default number is 10 and can be changed in the fr_repserver.properties file.

➤ To view server information:

1 Open a report.

2 Select **File then, Report Server Info**.

3 Click **Close** to close the Report Server Info dialog box.

5

Customizing Grids

You can customize grids by calculating data rows and columns. You can use functions to refine your report data or to add dynamic data, such as the date the report was created. You can also cut, copy, or paste rows or columns within a grid or across multiple grids.

Before you begin to customize grids, you must insert at least one grid and define its dimension layout. To customize a report, you must insert a text box or a grid in your report. For more information, see "Adding Report Objects" on page 83.

Inserting Rows or Columns in Grids

You insert rows or columns into a grid to add data to the grid. The following table describes the types of rows or columns you can insert into a grid:

Table 21 Row and Column Types

Type	Description
Data	A data row or column contains members of dimensions that are retrieved from a database connection. The member in a data row or column defaults to the top-level member of the dimension. **Note:** A # symbol is used to indicate data rows, columns, or cells in grids.
Formula	A formula row or column displays values based on specified formulas. A formula row or column is commonly used to calculate totals, averages, and variances on data rows or columns. For more information on formulas, see "Defining Formula Rows or Columns" on page 128. **Note:** An = # symbol is used to indicate formula rows, columns, or cells in grids.
Text	A text row or column primarily contains text typed into the cells, or added dynamically through a text function. **Note:** Text rows, columns, or cells in grids do not contain symbols when added to a grid. They are initially blank until populated with text.

By default, when you add a grid to a report, it contains one of each of the following components: a data row, an anchor row, a data column, and an anchor column. An anchor row or column is a blank row or column located at the end of a row or column. You can add one or more rows or columns within a grid, or you can use the anchor row and column to append new rows and columns.

Tip: Use the formatting information provided in "Formatting Grids" on page 165 to format the grid you added to your report.

The grid boundary remains the same size as you add rows and columns. For information on resizing the grid, see "Resizing Report Objects" on page 96.

➤ To insert rows or columns in grids:

1 Select a cell or a row or column. Then select **Insert then, Row/Column then, Data**, **Formula,** or **Text**. The new row is inserted above the selected row; the new column is inserted to the left of the selected column.

    Tip: To insert multiple rows/columns, select a number of rows or column on the grid equal to the number of rows or columns you want to insert.

2 To append a row or column at the end of a grid, select the grid or an anchor row or column, then perform an action:

- For a row, select **Insert then, Row then, Data, Formula,** or **Text.**
- For a column, select **Insert then, Column then, Data, Formula**, or **Text.**

3 To populate the row or column with data, formula, or text, perform an action:

- For a data row or column, double-click the row or column heading and select dimension members to place on the row or column. For more information, see "Assigning Members to Data Rows or Columns" on page 42.

- For a formula row or column, select the row or column heading and build a formula in the formula bar. For more information, see "Defining Formula Rows or Columns" on page 128.

- For a text row or column, enter text directly into the row or column. For more information on formatting text rows or columns, see "Formatting Text Boxes" on page 163.

> **Note:**   To delete a row or column, select the desired row or column, then select **Edit then, Delete**.

Cutting, Copying, and Pasting in Grids

You can copy, and paste rows and columns and formula rows and columns within the same grid or between two different grids in a report. You can only cut and paste rows and columns and formula rows and columns within the same grid.

> **Note:**   For formula rows and columns, you must cut the entire row or column.

➤ To cut, copy, and paste rows or columns in grids:

1 Open Reporting Studio.

2 Select **File then, New then, Report** to open a blank report, or select an existing report.

3 Create a grid.

4 Select a row or column and perform an action:

- To cut a row or column and place the information on the Windows clipboard, select **Edit** then, **Cut**.

- To copy a row or column and place the information on the Windows clipboard, select **Edit** then, **Copy**.

> **Tip:**   To select multiple consecutive rows or columns, press the SHIFT key and click multiple rows or columns.

5 Click the destination row or column.

6 To paste the selection in the destination row or column, select **Edit** then, **Paste**.

> **Note:**   Columns are pasted to the left of the selected destination column. Rows are pasted above the selected destination row. Pasting inserts the column or row and does not overwrite the data in the destination row or column.

7 Select **File** then, **Save** to save the report.

Specifying Row and Column Headings for Grids

Defining row and column headings for the grid enables you to specify the information you want displayed in the row and column headings for the entire grid. You can specify one of the following member labels for row and column headings:

- The member name, which displays the member name as the heading.

- The alias or description, which displays the alias or description as the heading.

- The member name and alias or description, which displays the member name and alias or description as the heading.

> **Note:** Whether or not you specify an alias or a description depends on your type of database connection. If you are reporting against a Oracle Essbase or Planning Details database connection, select Alias. If you are reporting against a Financial Management database connection, select Description.

When specifying row and column headings, you must define where you want row headings to be positioned in relation to the columns. For example, you might want your row headings to be positioned before column A.

> **Note:** You cannot place row headings before columns that are sorted.

You can also suppress headings for repeating members in a segment. When you suppress headings, only the first instance of the heading for a member that is repeated is displayed. Headings for the additional repeating members are hidden.

If you are using the Entity dimension through a Financial Management database connection, you can select the check box for Short Name for Entities for the row, column, or grid using the relevant properties sheet. This option enables you to display the short name of the entity in your report, removing the parent portion of the entity that typically displays.

The standard display for an entity using Financial Management is "parent.child." If you select Short Name for Entities on the relevant properties sheet, the entity displays as "child," removing the "parent" from the display. For example, an entity that typically displays as "UnitedStates.Connecticut" displays as "Connecticut" when the Short Name for Entities check box is selected.

You may also want to select the alias table you want to use. You can select alias tables in your Oracle Essbase or Planning Details database connection. Although you may not specify aliases on the grid level, if you display aliases for a row or column, the system displays the alias table as selected on the grid level.

The heading properties you specify on the grid apply to all rows and columns unless you specify otherwise. For more information on specifying row and column headings, see "Overriding Row and Column Headings for Grids" on page 105.

➤ To define row and column headings for the grid:

1 **Open a report and select the grid.**

2 Select one of the following member label options:

- **Member Name,** to show the member name as the heading.

- **Alias:Default,** to show the alias for a member from a Oracle Essbase or Planning Details database connection OR **Description,** to show a description for a member from a Financial Management database connection.

- **Both,** to show the member name and alias or description as the heading.

  Note: The option that is displayed on the Properties sheet changes depending on your type of database connection. For example, if you are using Financial Management as your type of database connection, the Description option is displayed. In this case, the Alias:Default option is not displayed unless you are using a Oracle Essbase or Planning Details type of database connection.

3 Select a column. The row heading is positioned to the left of the selected column. Columns are represented alphabetically as Column A, Column B, Column C, and so on.

4 Optional: Select the **Short Name for Entities** check box to display the short name for entities in your Financial Management grid.

5 Optional: Select the **Suppress Repeats** check box to hide headings for repeating members in a segment.

6 Optional: Select the alias table to use when showing aliases. By default, this option is set to the default alias table for the type of database connection.

> **Note:** Once in the grid, text can be aligned horizontally or vertically. For more information, see

Overriding Row and Column Headings for Grids

Defining row and column headings enables you to override the heading properties you set for the grid. You can specify one of the following types of headings for rows or columns:

- Member Labels
  - The member name, which displays the member name as the heading.
  - The alias or description, which displays the alias or description as the heading.
  - The member name and alias or description, which displays the member name and alias or description as the heading.

- Custom Headings
  - Customized text, which displays the user-defined text as the heading.
  - Text functions, which uses a text function to get data to display as the heading.

You can also suppress headings for repeating members in a segment. When you suppress headings, only the first instance of the heading for a member that is repeated is displayed. Headings for the additional repeating members are hidden.

➤ To override row and column headings for the grid:

1 **Open a report and a formula row or column in the grid.**

2 **Do one of the following tasks:**

- Select **Member Labels** and then select one of the following member labels options:

  ❍ **Member Name,** to display the member name as the heading.

  ❍ **Alias:Default,** to display an alias for a member from an Oracle Essbase or Planning Details database connection OR **Description,** to display a description for a member from a Financial Management database connection.

  ❍ **Both**, to display the member name and alias or description as the heading.

  > **Note:** The option that is displayed on the Properties sheet changes depending on your database connection. For example, if you are using Financial Management as your database connection, the **Description** option is displayed. In this case, the **Alias:Default** option is not displayed.

- Select **Custom Heading** and then do one or both of the following tasks:

  ❍ Enter a user-defined text heading to be displayed as the heading.

  > **Tip:** You can enter keyboard returns to create text headings for columns with multiple lines.

  ❍ Enter a text function, or click the **Insert Function** button, ➤ƒ× and select the text function you want to use for displaying data on the headings.

  > **Note:** For more information on adding a text function to a row or column heading, see "Using Text Functions to Display Information" on page 140.

3 **Optional:** Select the **Short Name for Entities** check box to display the short name for entities in your Financial Management grid.

> **Note:** You must select the entire row or column to display the Suppress Repeats option in the Row and Column property sheets.

About Row and Column Templates

Row and column templates enable you to select a contiguous set of rows or columns and save them as an object in the repository for reuse in one or more reports.

Working with row and column templates can involve the following tasks:

- Creating a Row and Column Template
- Inserting a Row and Column Template
- Unlinking a Row and Column Template
- Modifying a Row and Column Template

A row and column template comprises one or more row or column definitions. These row or column definitions may contain the following components:

- Database connection/dimension/member selections
- Formula rows and columns
- Expansions
- Headings, including customized formatting
- Text rows and columns, where only the text in the heading cells is saved
- Cell formatting
- Basic suppression (#Missing, #Zero, #Error)

When you create a row and column template, the following items are discarded:

- Cell formulas
- Secondary database connection specifications
- Text from the data cell area (text in the heading cells is retained)
- Conditional formatting
- Related Content
- Conditional suppression

After you create a row and column template, you can save it to the repository, with the following limitations:

- Formulas must refer to rows and columns within the selected rows or columns that comprise the template.
- Formulas outside the row and column template cannot refer to selected rows and columns that comprise or are part of a row and column template.

> **Note:** Cell format inheritance must be set before creating the row and column template. You can format cells using the Format Cells dialog box. For more information, see "Inheriting Cell Formatting" on page 174. When inheriting formatting within a row and column template, you must use the Inherit Formatting from option on the Row and Column Template properties sheet, which indicates the options that are available for inheritance. For example, suppression, formatting, and row height or column width.

> **Note:** When a report contains two or more templates and one of the templates cannot be retrieved because it is moved, renamed, deleted from the repository, or the data source for the template has changed, the link to the existing template will remains unbroken. No alerts for broken links are given. However, orphan links can be checked by viewing the logs (`FRWebApp.log`, `FRReportServer.log` or `FRClient.log`).

How Inheritance Works with Row and Column Templates

When inheritance is used with linked row and column templates, certain formatting options are dynamic and vary from report to report. When a linked row or column template is used in a grid, the format inheritance is automatically reset to the first available *non-template* row *above the* row template or to the *left* of the column template. If you want to keep the format of a row/column template consistent, or if you are experiencing formatting inconsistencies with inheritance and row or column templates, you can perform an action:

● Insert a hidden text row/column containing the formatting you wish to show in the row/column template and set the Inherit from on the Property sheet to reference the hidden row or column.

● Do not use inheritance, but rather set the row or column template with formats through the Format Dialog Box.

Property Values

The following tables describe the property values that are saved, inherited, or discarded in a row and column template.

Table 22   Saved or Inherited Property Values (User option)

Property Value	Description
Row and Column Template database connection	Saved by row or column
Heading - Suppress Repeats	Saved by row or column
Display Line Item Details	Saved by row or column
Headings	Saved by row or column
Allow Expansions	Saved by row or column
Calculations	Saved by row or column
Hide Always	Saved by row or column
Positive Number Formatting	Saved by cell or inherited by cell - user option
Negative Number Formatting	Saved by cell or inherited by cell - user option
Decimal Places	Saved by cell or inherited by cell - user option
Scale Value	Saved by cell or inherited by cell - user option
Top Border	Saved by cell or inherited by cell - user option
Right Border	Saved by cell or inherited by cell - user option

Property Value	Description
Bottom Border	Saved by cell or inherited by cell - user option
Left Border	Saved by cell or inherited by cell - user option
Shading	Saved by cell or inherited by cell - user option
Horizontal Alignment	Saved by cell or inherited by cell - user option
Vertical Alignment	Saved by cell or inherited by cell - user option
Indent	Saved by cell or inherited by cell - user option
Font	Saved by cell or inherited by cell - user option
Font Style	Saved by cell or inherited by cell - user option
Font Size	Saved by cell or inherited by cell - user option
Font Effects	Saved by cell or inherited by cell - user option
Replace Value	Saved by cell or inherited by cell - user option
Inherit Formatting From	Saved by cell or inherited by cell - user option **Note:** If the reference is internal to the row and column template, then it is applied when the row and column template is inserted. If the reference is external, then it is discarded and the "Inherit Formatting From" setting on the row and column template properties property sheet is applied. For more information, see " About Row and Column Templates" on page 106.
Row Height/Column Width	Saved by row or column or inherited from another row or column and applied to all rows or columns in the row and column template - User option
Suppression	Saved by row or column or inherited from another row or column and applied to all rows or columns in the row and column template - User option
Page Break Before	Saved by row or column discarded

Table 23   Discarded Property Values

Property Value	Description
Text from text cells	Discarded - text in the heading cells is retained
Cell Formulas	Discarded
Investigation	Discarded
Conditional Formatting	Discarded
Text in non-heading cells	Discarded
Calculation Order	Discarded; irrelevant outside of a grid
Secondary database connection	Error. See step 9.b on page 111 for more information.

Property Value	Description
External References in Formulas (text or numeric)	Error

Creating a Row and Column Template

You create a row and column template based on rows and columns in a grid. When considering rows and columns for inclusion in a template, select those that contain the member selections, formulas, and formatting suitable for future use. The row and column template can then be imported for use in other grids.

Note: When the template is updated, grids containing a link to the template are updated.

Tip: The row and column template must contain at least one data row or column. For example, your template cannot consist solely of text and formula rows or columns.

➤ To create a row and column template:

1 Open a report that contains a grid, or create a new grid with supported rows or columns.

2 Select a set of rows or columns to be included in the template.

   Note: The entire row(s) or column(s) must be selected.

3 Select **File** then, **Save Object** to save the object to the repository.

   The Save Object dialog box is displayed.

4 In the **Name** text box, enter a unique name for the row and column template (for example, Sales Template).

5 **Optional:** In the **Description** text box, provide a brief description. The description is displayed in the repository under Description.

6 For the **Type** drop-down list box, **Row and Column Template is selected by default**.

7 **Optional:** To save the row and column template as a linked object in the current grid, select **Link to Source Object**. To save the row and column template in the grid without linking it to the current grid, deselect **Link to Source Object**.

   Note: Link to Source Object is disabled if all rows and columns in a grid are selected for inclusion in a row and column template, as you cannot link this object in the grid. The following error message is displayed: `Cannot create a linked row and column template based on the selected rows. The grid needs to have at least one data row that is not part of a row and column template.`

8 Click **Save** to return to the grid. Do one of the following to save the row and column template object as linked:

   ● insert a blank data row or column into the grid, omitting it from the row and column template

- deselect one row or column from the template

> **Note:** A grid must contain at least one row or column that is not committed to a linked row and column template.

9 Click **Save**. The system validates the row and column template and checks for properties that are not supported. Depending on the content of your row and column template, you may encounter one or more of the following dialog boxes:

a. If your row and column template contains formulas with external references (for example, to cells outside of the selected row and column template), you are prompted to modify those formulas before saving the row or column template.

> **Note:** You can save a row and column template that contains cell formulas, as these can be discarded. For more information, see .

b. If a secondary database connection was specified within the row and column template, a dialog box displays prompting you to continue saving the template. If you save the template, the secondary database connection you specified in the row and column template is discarded. The primary database connection is then used for the row and column template.

c. If unsupported properties are found, an Information dialog box presents a list of properties to discard before saving the template. For example, if the row and column template contains a cell formula, you can choose to save the template without the formula or not save the template.

10 Review the properties to be discarded, then perform one of the following tasks:

- Click **Yes** to save the template with the unsupported properties, and proceed to the next step.

> **Note:** If you select **Yes**, the grid is permanently changed. Items listed in the message box are discarded from the grid.

- Click **No** to prevent changes to the rows and columns (the template is not saved) and return to the grid.

11 Select the options to save, inherit, or discard settings from rows using the **Suppression, Row Height, and Page Breaks** dialog box. The following definitions apply to these selections:

- **Suppression** - you can save or inherit any application of suppression (that is, if zero, missing, or error) within the rows and columns selected.

- **Row Height** - if you selected a row for your template, you can save or inherit any application of row height, which can be changed manually or numerically from the Row Height text box on the Row Properties property sheet, within the selected rows and columns.

- **Column Width** - if you selected a column for your template, you can save or inherit any application of column width, which can be changed manually or numerically from the Column Width text box on the Column Properties property sheet, within the selected rows and columns.

● **Page Breaks** - you can save or discard page breaks specified within the rows and columns selected.

Figure 12   Suppression, Row Height, and Page Breaks Dialog Box
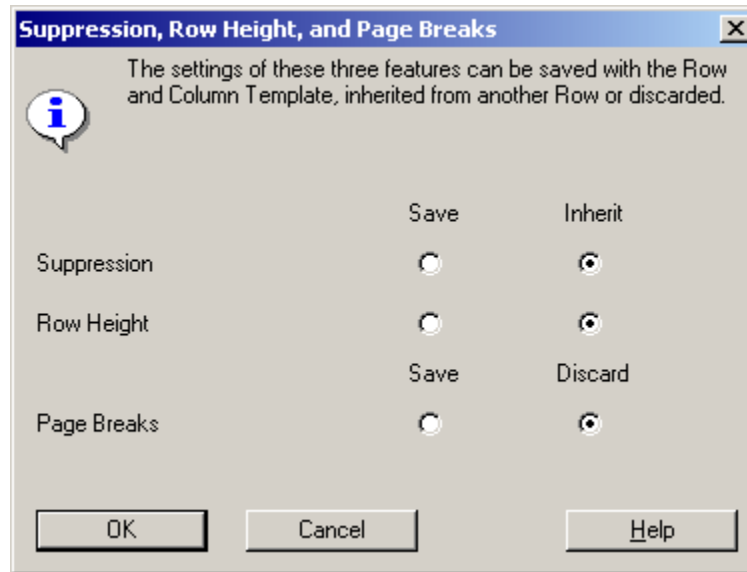
Note: The options that display on this screen vary according to your selection in the grid.

12   Click **OK**.

Inserting a Row and Column Template

After saving the row and column template to the repository as an object, you can insert it into an unlimited number of compatible grids. When a row or column template is inserted into a report, formulas outside of the template are adjusted accordingly. Only formulas within a grid are updated; not external formulas, which refer to the grid with the template, from text objects or another grid.

➤ To insert a row and column template:

1   Open a report and select a row or column adjacent to which you want to insert the row and column template.

   Note: Row templates are inserted below the selected row. Column templates are inserted to the left of the selected cell.

2   Select **Insert** then, **Saved Object**. The **Insert Saved Object** dialog box is displayed with a view of the Explore repository.

3   Select the row and column template to insert.

4   To link or unlink a row and column template to or from the repository as an object, perform an action:

- To create a link between the report and the template in the repository, select **Link to Source Object**. You can link the row and column template to the current grid so that the grid maintains a dynamic connection to the row and column template preserved in the repository.

  Note: A template that is linked within a grid can only be modified through format inheritance. For more information, see "Inheriting Cell Formatting" on page 174.

- To use the template in the report without maintaining a dynamic link to the source object in the Explore repository, clear **Link to Source Object**. For more information, see "Unlinking a Row and Column Template" on page 113.

5 Click **Insert**.

   Note: In a grid on a report, a row and column template is marked with yellow heading cells. Dynamic linking is displayed on the Row and Column Template Properties property sheet.

Unlinking a Row and Column Template

After inserting a row and column template into a grid, you can unlink it. This enables you to use the row and column template as a structural template rather than a dynamically connected replica of the row and column template in the repository.

When you unlink a row and column template, the rows and columns in the template are converted into standard, unlinked rows and columns.

➤ To unlink a row and column template:

1 Open a report that contains a grid with a row and column template inserted.

2 Select the row and column template to unlink.

3 On the **Row and Column Template Properties** property sheet, clear the **Link to Source Object** check box.

4 When an Information dialog box asks whether to unlink this object, click Yes.

Modifying a Row and Column Template

You can modify a row and column template using one of the following methods:

- Create a new row and column template and save it using the same name as a row and column template located in the repository. For more information, see "Creating a Row and Column Template" on page 110.

- Unlink a row and column template from a grid, then modify and save it to the repository using the same name and folder of the row and column template in the repository.

  Note: Either methods replace the original row and column template in the repository.

➤ To modify a row and column template by unlinking a row and column template:

1 Open a report and create a grid.

2 Select and unlink a row and column template from the repository, inserting the rows and columns into your grid. For more information, see "Unlinking a Row and Column Template" on page 113.

> **Note:** Unlinking the template from the repository dissolves the template and inserts the rows and columns that comprised the template into your grid.

3 Modify the rows and columns as needed.

4 Save the row and column template to the repository using the same name and folder as the row and column template you want to replace.

5 Click **OK** to confirm the replacement of the original row and column template.

Setting Data Query Optimization Options

When working with grids, you can set data query optimization options to enable you to optimize the efficiency of your specified data queries.

Because data queries extract one or more values from a multidimensional database connection, it is beneficial to speed up this process using the data query optimization settings. For example, you can specify suppression options on your servers and include or exclude the Oracle Essbase sparse command, which is used to address the low probability that data exists for every combination of dimension members. For example, a dimension is sparse when intersections of data are empty.

You can also optimize certain types of Oracle Essbase and Workforce Planning Attribute dimension retrievals.

> **Note:** Using Workforce Planning, a dimension can have attribute associations that change across time periods or other dimensions. For example, an attribute dimension of "Status" associated with an "Employee" dimension allows for the change of employee status over time; In January, John Smith has the status of "Full Time", in March his status changes to "Part Time".

> **Note:** When applying optimization options, you may use MDX (Multidimensional expression) to query Essbase data sources on a grid basis or report script.

➤ To set data query optimization options:

1 Open or create a report that contains a grid.

2 Click **Task** then, **Data Query Optimization Settings**.

Note: The options that display in the Data Query Optimization Setting dialog box, depend on the type of database connection you are using. For example, the Oracle Essbase Sparse Command option is only displayed when Oracle Essbase is the database connection.

Note: The ability to suppress rows can be applied to any data source (Financial Management, Planning, SAP BW, and Oracle Essbase). All other options on this dialog box apply to Oracle Essbase only.

3 To indicate the server on which you want to suppress rows, select one of the following options from the **Suppress the Rows on the** frame:

- Database Connection Server
- Report Server

4 You can specify whether to query a report using MDX (Multidimensional Expression) or report script. For the check box, **Essbase Queries Use MDX**, perform one of the following:

a. Clear the check box to use the report script queries. This will disable the "Show Drill Through setting on the grid.

b. Select the check box to use MDX for querying the Essbase data source (this is the default), then select a method for running the query:

   i. **Combine queries using with members** (this is the default). This method combines the MDX queries into a single query using the `MDX with member` syntax. By minimizing the number of queries, performance should be improved.

   ii. **User separate queries**. This method issues separate MDX queries for each row which has a member selection function (for example, "Descendants of" or "Children of").

5 To indicate if the Oracle Essbase sparse command is included or excluded, select one of the following options from the **Sparse Command is** frame:

- Included
- Excluded

Note: The Sparse Command option is only displayed when the database connection uses Oracle Essbase a data source.

6 **Optional:** Click **Set to Default** to use the default data query optimization settings.

7 Click **OK** to accept the settings you indicated.

8 **Optional:** Click **Cancel** to exit and return to the grid in the Report Designer.

Enabling Expansions for Oracle Essbase

For Oracle Essbase database connections, a Oracle Essbase user can enable expansions for Hybrid Data. Hybrid Data is stored outside a Oracle Essbase cube in a relational database. This enables report viewers to include Hybrid Data in their report. For more information on setting up access to detail data within reports, see Chapter 7, "Providing for Detailed Data and Documents in Reports."

Displaying Line Item Detail for Financial Management

For Financial Management database connections, a Financial Management user can select if they want to display line item detail for rows only on Account dimensions. A user can also select the location of the line item detail; before or after the parent member of the line item detail. To display line item detail, all dimensions must be set to a Level 0 member.

➤ To display line item detail for Financial Management:

1   Open a report and select a row in the grid.

2   In the Row Properties Sheet, select Display Line Item Details.

3   Optional: On the Grid Properties sheet, select the **Position** category and do one of the following in the Position of Line Item Detail box:

   ● To display line item detail before the parent member, click **Before Members**.

   ● To display line item detail after the parent member, click **After Members**. This is the default.

Showing Supporting Detail for Planning

When using the Planning Details database connection, and selecting a row, you can display supporting detail for a member. If supporting detail exists for one or more cells in the selected row, additional rows are inserted to show the supporting detail. In addition, you can control whether a page break is allowed within the rows of supporting detail.

➤ To show supporting detail for the Planning Details database connection:

1   Open a report and select a row in the grid that contains a member with supporting detail.

2   In the **Row Properties** sheet, select **Display Supporting** Details.

3   Specify whether to allow page breaks with the rows of supporting detail:

   ● To allow a page break within the rows of supporting detail, select the **Allow Page Break Within** check box.

   ● To keep the parent member and the supporting detail on the same page, deselect the **Allow Page Break Within** check box. If the supporting detail does not fit on the current page, the parent member and supporting detail is moved to the next page.

      Note: If the supporting detail spans multiple pages, this option defaults to **Allow Page Break Within** and page breaks are used.

4   Optional: To position the supporting detail before or after the parent member, select the **Grid Properties** sheet, select the **Position** category and select an option in the Position of Supporting Detail box:

   ● To display supporting detail before the parent member, click **Before Members**.

   ● To display supporting detail after the parent member, click **After Members**. This is the default.

5   Optional: To indent each generation within the supporting detail:

a. Select the heading cell of the member that is going to display the supporting detail.

b. Select **Format then, Cells then, Alignment tab**.

c. In the **Indent Increases for Each Generation by** box, select a positive number by which you want to indent (to the right) each generation in the supporting detail list, or select a negative number to indent in reverse (to the left) each generation in the supporting detail list.

> **Note:** This property applies only to heading cells on the rows. It is enabled for Planning Details type of database connection only when Display Supporting Detail is selected. For more information on formatting, see Chapter 9, "Formatting Reports."

6 **Optional:** To apply additional formatting to supporting detail, use conditional formatting. The following two options are useful for supporting detail:

● Supporting Detail. If, at runtime, supporting detail results from a cell, you can format the supporting detail.

● Relative Generation. You can format the different generations of supporting detail independently. For example, if the resulting hierarchy of a member includes four generations of supporting detail, you can specify the third generation to format. The conditions would resemble the following example:

> **Note:** In order for all types of database connections to use relative generation, you must have selected a member relationship that returns members on multiple levels; for example, Children of...(Inclusive), Descendants of..., Descendants of ...(Inclusive), Parents of...(Inclusive), Ancestors of, Ancestors of...(Inclusive), and AllMembers. For Planning Details, you may use relative generation with a member or dynamic member if supporting detail is turned on.

```
Condition 1: If
Supporting Detail Is True    And
Relative Generation (of) Market = 3
```

> **Note:** For more information, see "About Conditional Formatting" on page 179.

Defining the Grid Point of View

The grid point of view (POV) enables designers to specify the members for a dimension on a grid without placing the dimension on the row, column, or page intersection. After a dimension is specified on the grid POV, the designer determines the ways that the viewer can select members, as follows:

● Any member. The viewer can select any member for the dimension.

● A member from list. The viewer can select from a limited list of members that the designer previously defines.

● Nothing, Lock Member Selection. The viewer cannot select any member for the dimension.

Note: To improve report performance, do not use dimensions with only one member selected (for the entire grid) into a row, column, or page axis. Although, it does not increase the potential cell count, it adds overhead to the entire query. Dimensions that are variable or set to one member should be left in the POV. For variable members, include the user POV and for fixed members, include the grid POV. The rules for each database connection for a grid are as follows: - If the dimension is on a grid axis (row, column, or page), use the member selected for that dimension. - If the dimension is set on the grid POV, use the member selected for the grid POV dimension. - Use the member selected for the user POV dimension.

Showing or Hiding the Grid POV Bar

As a report designer, you can hide or display the grid POV bar. Hiding the grid POV prohibits you from changing the grid POV when viewing a report. By default, the grid POV bar is hidden. However, even when a POV bar is hidden, its values are still operative when running the report.

Note: The grid POV only displays in a HTML view, and not in a PDF view. In HTML view, the report is interactive, so you can change the Grid POV members, whereas a PDF view is a static document, and you cannot change the Grid POV.

➤ To show or hide a grid POV bar:

1 **Open a report.**

2 **Select the grid for which you want to show or hide its grid POV bar.**

3 **Do one of the following tasks in the Grid Properties sheet:**

● To show the grid POV, select the **Grid Point of View** check box.

● To hide the grid POV, deselect the **Grid Point of View** check box.

Tip: As an alternative, you can also select a grid, right-click inside the grid, and select **Grid Point of View**.

Selecting Members for the Grid Point of View

On the grid point of view (POV) bar you can select members for dimensions that are not used in rows, columns, or the page axis. The members defined on the POV bar complete the criteria used to retrieve data for the grid. Each POV dimension can contain only one member.

Note: For Oracle Essbase and Planning database connections, Hyperion recommends excluding dimensions with security on it in the Grid POV since it may cause unexpected results for end users.

➤ To select a POV member for the grid POV:

1 Open a report.

2 To display the grid POVs, select **Grid Point of View** from the Grid Properties sheet.

3 On the grid POV, click on a dimension to display the Select Members dialog box.

4 In the Select Members dialog box, each dimension in displayed on a separate tab. Select the dimension listed on the tab, then select an associated member. Repeat for all dimension on the tabs.

5 Click **OK**. The members are displayed on the grid POV.

Setting Up a Grid Point of View

A designer can set up a grid point of view (POV), to control or limit the selection of members available to end users who view or print the report.

For more information, see Chapter 2, "Selecting Members for Report Designers."

➤ To set up a grid POV:

1 Open a report with members selected for dimensions on the grid POV.

2 Right-click a grid and select **Grid Point of View Setup**.

3 For each dimension presented in the dialog box, you can specify the availability of member selection to the end user:

- **Any Member** - All members are available.

- **A Member from List** - Only the members you specify are available. Click , in the **Choices List** column. The Select Members dialog box is displayed.

- **Nothing, Lock Member Selection for a specific dimension** - No members a re available.

4 When the Report Viewers May Select column is set to A Member from List, Select a member from the Select Members dialog box, then click **OK**. For more information on selecting members, see Chapter 2, "Selecting Members for Report Designers."

5 Select the **Show Dimension Name and Show** Member Name check box to display the dimension name with the member name.

6 Select the Show Alias check box to display alias names.

7 Click **OK**.

Inserting Page Breaks

You can insert a page break before a row or column in a grid from the Row Properties and Column Properties sheets. This enables you to break your report data at a specified location within a grid while keeping required line items together.

Page Breaks are indicated with a heavy, dashed line. The following figure shows a page break before row 2. Page breaks are inserted above the selected row and to the left of the selected column.

Figure 13   Grid with Page Break

➤ To insert a page break:

1 Open a report, then select a grid.

2 Select or highlight the row or column in which you want to insert a page break.

> **Note:** You cannot insert a page break before the first column in a report or above the first row in a report.

3 In Row or Column Properties sheet, select the Page Break Before option.

> **Note:** If **Fit Length to Page** is selected in Page Setup, you cannot apply page breaks to rows. If **Fit Width to Page** is selected in Page Setup, you cannot apply page breaks to columns. For more information on Page Set Up, see Chapter 14, "Working with Books and Snapshot Books."

4 Perform an action:

- Select **Position at Top** when selecting a row if you want the remaining part of your grid to be placed at the top of the new page or select **Position at Left** when selecting a column if you want the remaining part of your grid to be placed at the left margin of the new page.

- Select **Same Position** if you want the grid to be placed in the same position as it is currently placed. For example, if a grid is placed half way down the page and you insert a page break with **Same Position** selected, the remaining part of the grid is displayed half way down on the second page.

Defining Page Axis Headings

A page axis heading prints the member name every time the page member changes. Members on the page axis can have their own custom heading.

For more information on printing the page dimension heading, see "Printing Page Dimension Headings" on page 161.

You specify how to print the page dimension heading using the following options:

Table 24   Options for Page Dimension Headings

Option	Description
New page, Position at Top	Prints a new page at the top of the next page. Use this option when chart is linked to a grid and you want to ensure the chart and grid print next to one another whenever the page member changes.
New page, Position Same	Prints a page at the specified grid location. Use this option in the following situations: ● The grid has horizontal and/or vertical alignment properties set and you want the grid to print in the same position on each page. For example, if you set the Grid position to Center/Middle, it is printed in the center of each page. ● When a chart is linked to a grid and you want to ensure the chart and grid print next to one another whenever the page member changes.
Same Page	Prints the new page immediately after the data from the previous page. **Note:** When a chart linked to a grid, the chart is printed once. The chart is not printed every time the page member changes.

➤ To define a page dimension heading:

1 Open a report and select the **Pages** list box on the grid.

2 On the Page Properties sheet, in the **Headings** area, **select a dimension.**

3 Do one of the following tasks:

● Select **Member Labels** and then select one of the following member labels options:

  ❍ **Member Name,** to display the member name as the heading.

  ❍ **Alias:Default,** to display an alias for a member from an Oracle Essbase or Planning Details database connection OR **Description,** to display a description for a member from a Financial Management database connection.

  ❍ **Both**, to display the member name and alias or description as the heading.

  Note: The option that is displayed on the Properties sheet changes depending on your database connection. For example, if you are using Financial Management as your database connection, the **Description** option is displayed. In this case, the **Alias:Default** option is not displayed.

● Select **Custom Heading** and then do one or both of the following tasks:

  ❍ Enter a user-defined text heading to be displayed as the heading.

  Tip: You can enter keyboard returns to create text headings for columns with multiple lines.

  ❍ Enter a text function, or click the **Insert Function** button, ➔ƒₓ and specify a text function to use a text function to get data to be displayed on the headings.

  Note: For more information on adding a text function to a row or column heading, see "Using Text Functions to Display Information" on page 140.

4 **Optional**: To set formatting options, click the **Format** button.

5 Specify a height for the header.

6 In the Page Printing Positioning Option area, select one of the following options:

- New Page - Top

- New Page - Same

- Same Page

> **Note:** For definitions of the Page Printing Positioning options, see Table 24 on page 121.

Changing the Database Connection of Grids

Database connections of grids is done in Workspace. When you change the database connection of a grid, you display data from another source. Because the dimension names for the new database may differ from the default database, the administrator needs to prepare a mapping schema to maintain the integrity of the data structure. If the structure of the specified database connection differs from that of the current database connection, the report cannot repopulate. For information, see "Changing Financial Reporting Database Connections" in Oracle Enterprise Performance Management Workspace User's Guide.

Assigning Multiple Database Connection to Grids

You can populate a grid with data from multiple database connections. After you define a grid's initial database connection and dimension layout, you can change the database connection for one or more rows or columns of the grid. You can define another database connection for each data row or data column.

You can preserve the members selected in the grid when changing database connections on a grid row or column. You must map all dimensions that are assigned to rows or columns in a grid from the current database connection to the new database connection. Dimensions on the point of view (POV) need not to be mapped.

➤ To assign multiple database connections to a grid:

1 Open a report.

2 In a grid, select one or more data rows or columns for which you want to change the database connection.

3 In the Row or Column Properties sheet, click the **Select Database Connection** button, .

4 In the **Select a Database Connection** dialog box, select a database connection from the **Database Connection** drop-down list, then Click **OK**.

> **Note:** If you want to create another database connection, select the **New Database Connection** button. For information on adding another database connection, see Chapter 11, "Managing the Explore Repository."

5   In the **Map Dimensions Between...** dialog box, map dimensions between the default database connection and the selected database connection. You do this by selecting a dimension from the pull-down list in the right column for each dimension in the left column.

6   **Optional**: Select an alias table for the new database connection.

7   Click **OK**.

Adding Auto Calculations to Data Rows and Columns

You can append auto calculations to the data rows and columns of your grids. For example, you might want to calculate the total of rows or columns that expand and contain multiple dimensions.

When you define an auto calculation for a data row or column, a row or column is inserted at runtime that contains the calculated value. This calculation goes against all members in a row or column and is displayed when you print or preview the report.

You can apply several formatting options. For each auto calculation, you can specify a heading for the calculated row or column and a group heading. You can specify the location of the calculation row or column in relation to the member, and you can insert blank rows before and after calculation rows and group headings. You can also specify page breaks within rows of calculation and after a calculation row.

You can apply several of the formatting options provided with auto calculation but exclude the auto calculation function for a specified cell, row, or column.

You can define different types of calculation for each dimension or member in the row or column using one of the following functions:

● Average—The average value of values in the segment in this dimension at runtime (ignores non-number values)

● Average All—The average value of values in the segment in this dimension at runtime (assigns 0 to non-number values)

● Count—The number of values in the segment in this dimension at runtime (ignores non-number values)

● Count All—The number of values in the segment in this dimension at runtime (assigns 0 to non-number values)

● Maximum—The largest value of the values in the segment in this dimension at runtime

● Minimum—The smallest value of the values in the segment in this dimension at runtime

● Product—This function multiplies all numbers or references in the segment in the dimension and returns the product at runtime

● Total—The sum of the values in the segment in this dimension at runtime

You can use the formatting options without having calculation done. This enables you to retain the member grouping without calculations such as totals.

● No Calculation—Calculation is not performed on the selected cell, row, or column. However, formatting provided with auto calculation is retained. You can apply No

Calculation to an auto calculation row, column, or cell or non-calculation row, column, or cell.

> **Note:** If errors or missing data exist for members, the previous operations include the member value in the subtotal, but the member value is treated as a zero value.

The following figure is an example of a grid where auto calculation is applied. In the grid, the columns Sales and Qtr1, Qtr2 and the rows Scenario and Product are hidden to achieve the desired presentation in the report:

➤ To add auto calculations to data rows or columns:

1 Open a report.

2 Select the heading cell of a row or column that contains multiple members.

3 In the **Heading Row** or **Column Properties** sheet, select **Auto Calculation**, then click **Setup**. The **Insert an Auto Calculation Row / Column** dialog box is displayed.

The following two figures illustrate the settings for the example report.

4   In the **Calculation** area, select a function for the type of calculation you want to perform. Select **No Calculation** to only include auto calculation formatting.

5   **Optional:** To add headings to the calculation or group rows or columns, take any of the following actions in the **Headings** area.

●   Select the Group Heading check box, then enter a custom heading to describe the row or column. To insert formulas in the headings, click the **Functions** button ![fx]. For more information, see "Using Text Functions to Display Information" on page 140.

>   **Note:**   When using the MemberName function, you must enter "current" for the row/column/page parameters.

>   **Note:**   The header is suppressed if the surrounding data is suppressed.

>   **Tip:**   You can suppress repeats on multiline headers by selecting the Grid Properties sheet, General category, and selecting the Suppress Repeats check box.

●   In the **Auto Calculation Heading** text box, enter a custom heading for the calculation row or column. To insert formulas in the headings, click the **Functions** button ![fx]. For more information, see "Using Text Functions to Display Information" on page 140.

6   **Optional:** To insert blank rows or columns before or after calculation rows or columns and group headings, select any check boxes in the **Insert Blank Row /Column** area.

7   To change the height or width of the inserted row or column, enter the unit in the **Row Height** or **Column Width** text box.

>   **Tip:**   You can specify whether to insert the auto calculation row or column before or after the expanded members of the row or column. Do this by displaying the Grid Properties sheet, then select the Position category.

8   Select **Allow Page Breaks Within** to allow a page break within the rows of auto calculation. When deselected, the heading cell and the row are kept together. If the row is too long to fit on a page, the heading cell and the row is moved to the next page. If the auto calculation row is longer than one page, the option defaults to Allow Page Break Within.

9   Select **Allow Page Breaks After Auto Calculation** to allow a page break after the calculation row.

10 Click **OK**.

11 To view the report, select **File then, Print Preview**. The example report resembles Figure 14.

>   **Note:**   See Figure 15 to view the same report with applied conditional formatting.

Figure 14   Example Report with Auto Calculation

```
Sales


Qtr1 Sales

East            20,621
West            31,674

SubTotal        52,295


Qtr2 Sales

East            22,449
West            33,572

SubTotal        56,021


GrandTotal      108,316
```

Applying Formatting to Auto Calculated Data Rows and Columns

You can use the conditional formatting feature to apply additional formatting to the auto calculation rows and columns, such as underline, bold, and indent. The conditional formatting feature contains two conditions specifically designed for auto calculation:

● Auto Calculation—Used to apply formatting to the auto calculated cells and auto calculation heading.

● Auto Calculation Group Heading—Used to apply formatting to the section headings.

For more information on conditional formatting, see "Applying Conditional Formatting on Grids" on page 182.

Figure 15, displayed below, is an example report that uses conditional formatting to specify font, alignment, and border and shading settings. The following conditions were applied to the example report by selecting the East, West Heading Cell and Calculated Data Cell:

● Format 1: IF (Auto Calculation Year is True, then Format Cells (double border top, Font = Ariel, Bold, Font size = 12)

● Format 2: IF (Auto Calculation Market is True, then Format Cells (single border top)

● Format 3: IF (Auto Calculation Group Heading Market is True, then Format Cells (Alignment = center, Font Style = italic)

● Format 4: IF (Auto Calculation Group Heading Year is True, then Format Cells (Bold, Font size = 12, Color = blue)

Figure 15   Print Preview of Example Report with Applied Conditional Formatting

➤ To apply formatting to calculated data rows and columns:

1   Open a report.

2   Select a cell or group of cells that is set up with auto calculation.

3   Select **Format then, Conditional Format.**

4   Select **Auto Calculation** or **Auto Calculation Group Heading** from the Property drop-down list located below **Condition 1: If**, then enter the conditions.

Figure 16   Conditional Formatting Applied to Specify an Auto Calculated Cell
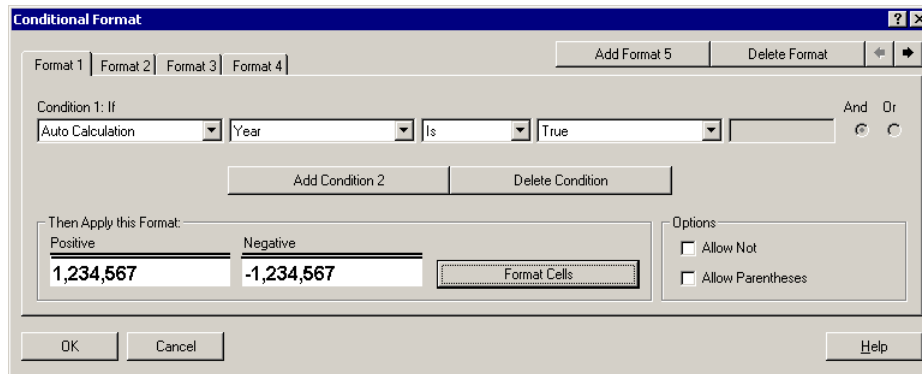
5   Click the **Format Cells** button to apply formatting to the calculated cell.

6   Click **OK** to accept the formatting than you specified for the calculated cell. For more information on formatting, see "Formatting Grids" on page 165.

Note: You can use conditional formatting to establish formatting for calculated cells. For more information, see "Applying Conditional Formatting on Grids" on page 182.

7 To view the report, select **File then, Print Preview**. The example report resembles Figure 15.

Defining Formula Rows or Columns

A formula consists of a combination of grid references, mathematical functions, and arithmetic operators. A grid reference uses values from the current grid or another grid in a calculation. You can define arithmetic formulas on formula rows, columns, cells, or a range of formula cells in a grid. For example, you might want to build a formula that adds one or more rows. Or, you might want to multiply two rows, add a third row, then display the result. For a list of mathematical functions you can use in formulas, see "Mathematical Functions" on page 202.

Note: By default, cells that contain missing data (#MISSING) are not treated as zero (0) in formulas, unless specified differently using the IfNonNumber property. In the case of a formula that uses division, an ERROR is returned.

Note: When using the Financial Management database connection, the results varies, based on the settings of the `MissingValuesAreZeroInFormulasInHFM` option in the `fr_repserver.properties` file. If the property is set to one (1), the #Missing value is treated as a zero. However, if the property is set to zero (0), the #Missing value is treated as missing which results in #missing or #error values. The default setting is one (1).

To specify mathematical properties, you can use dot notation. Dot notation is a syntax that specifies properties for a grid or another property. You specify a property using a period (.) followed by the property name.

The following syntax describes how to define formula rows or columns:

`gridname.`**`row\column[`**`x`**`]`**`.property`

Argument	Description
`gridname`	The name of the grid. Grid names cannot include spaces. For more information on grid references, see "Mathematical Functions" on page 202.
`x`	The row or column, number, and *property*.

For example, `mygrid1.row[3].sum` adds all elements in row 3 of mygrid1.

Note: When specifying the full gridname notation, you must also indicate the row, column, or cell.

The following example returns the sum of the *n*th column:

    `mygrid2.column[C].sum`

You can omit references to the current grid, row, column, or cell. The following example returns the absolute value of the cell located at the intersection of row 5 and column B in the current grid:

```
ABS([5,B])
```

➤ To define formula rows or columns:

1 Open a report.

2 Select a row or column in a grid.

3 Select **Insert then, Row then, Formula** or **Insert then, Column then, Formula**.

4 Select the formula row or column, or a range of formula cells.

5 In the drop-down menu from the formula bar, select a function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

6 Insert your cursor in the formula text box and enter the rest of the formula.

7 Repeat steps 4 through 6 as necessary to build your formula.

8 Select **File then, Print Preview** to see the results of your formula.

Defining Headings for Formula Rows and Columns

You can define a heading for a row or column. By default, the formula is shown as the heading for the row or column. You may also create a custom heading for the row or column.

➤ To define headings for formula rows and columns, select the heading cell, then do one of the following from the Headings area of the Row or Column Properties sheet:

- Select the **Show Formula** option. This is the default.
- Click the Custom Headings button. Enter text in the Custom Heading text box area.

  Note: You can also insert a text function in your custom heading.

Expanding Rows or Columns

In the designer, you can use the design-time row, column, and cell to reference the calculated rows, columns, or cells.

The syntax for row or column is:

```
AXIS[Segment(Range)].Property
```

The syntax for a cell is:

```
CELL[Row Segment(Range), Column Segment(Range)].Property
```

Reference	Definition
AXIS	A row or column containing the expanded cells identified by the given row and column templates. The default is row. For example, [3] refers to row 3 and [C] refers to column C. The following reference: [3].sum in a column formula is calculated as the sum of row 3.
	Optional.
CELL	The intersection of the expanded cells, given the row and column template coordinates, respectively. For example, the following reference: [2,C] is the single cell where row 2 intersects column C.
	Optional.
Segment	A value that represents a row or column ID in the designer. Referenced segments refer to design-time rows or columns, which might expand in the viewer. View-time rows and columns are the expanded rows and columns. Use numbers for row IDs and letters for column IDs.
	Note: If you are using an expanded formula row, the default segment is row. If you are using an expanded formula column, the default segment is column. For example, row [5] refers to expanded row 5. For more information on using segments, see "Expressing the Segment Argument" on page 130.
	Optional.
Range	The expanded cells used in the calculation of the function.
	Range refers to view-time expanded rows and columns. Calculations are performed after suppression. Sorting is performed after calculations. For more information on sorting and suppression, see "Conditional Suppression" on page 189 and "Sorting Rows, Columns, and Pages" on page 177.
	Use colons to refer to a range of expanded rows or columns. For example, (3:6) addresses rows 3, 4, 5, and 6. For more information on using ranges, see "Expressing the Range Argument" on page 132.
	Optional.
Property	A function applied to aggregate rows, columns, or cells. For more information on using properties, see "Property Arguments" on page 205.
	Optional.

Expressing the Segment Argument

The Segment argument is a value that represents a row or column ID in the designer. Referenced segments refer to design-time rows or columns, which might expand in the viewer. View-time rows and columns are the expanded rows and columns. You can use numbers for row IDs and letters for column IDs. You can refer to one or more segments in any standard formula. The following table explains the types of notation used for multiple segments in standard formulas.

Table 25   Segment Notation

Type	Notation	Description	Example
Single segment	[ ]	Single (design-time) segment	This expression points to segment 2: `row[2]` **Note:** Previous releases support this notation.
Nonconsecutive segment	[;]	Refers to multiple single rows or column segments.	This expression points to segment rows 2, 5, 7, 8 and 10: `row[2;5;7;8;10]`

Type	Notation	Description	Example
			Note: Use a semi-colon rather than a comma to delineate row or column references.
Segment Range	[:]	Refers to a range of rows or column segments.	This expression points to segment rows 2, 3, 4 and 5: row[2:5]

You can use any combination of the above.

Example:

The following example points to segment rows 1, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15 and 17:

```
row[1; 3; 5:10; 12:15; 17]
```

Example:

If the following expression references row segment 20, but the grid contains only 15 row segments, the formula works only on segment 4:

```
row[4; 20]
```

If you enter a larger starting segment than ending segment, the system internally switches them around.

Example:

The following example shows how the segments are internally switched:

```
row[6:3] becomes row[3:6]
```

Multiple references to the same segments are valid. This causes the same segments to be included twice in an expression.

Example:

The following example sums row 5 twice:

```
row[2;3;5;7;5].sum
```

Example:

The following example references row segments 2, 3, 4, 5, 6, 7, and segment 5 again. It includes segment 5 twice in the calculation of the average:

```
row[2:7;5].avg
```

Text segments are ignored.

Example:

The following example ignores row segment 3 if it is a text row:

```
row[1:5]
```

Expressing the Range Argument

The Range argument refers to view-time expanded rows and columns, on which calculations are performed after suppression. Sorting is performed after calculation is completed. The following table explains the expanded range notation:

Table 26 Range Notation

Type	Notation	Description	Example
None		The Range argument is optional.	This row expression points to all expanded rows in row `segment 2. row[2]` **Note:** This ensures compatibility with earlier releases.
Single Range	[segment (range)]	Refers to the single expanded row or column.	This expression points to expanded row 5 in segment 2: row[2(5)]
Consecutive Range Reference	[:]	Refers to a range of expanded rows or columns.	This expression points to expanded rows 5,6,7,8,9,10 in row segment 2: `row[2(5:10)]`
Nonconsecutive Range references	[,]	Refers to multiple single expanded rows or columns.	The following example points to expanded rows 5, 7, 8 and 10 in row segment 2: row[2(5,7,8,10)]

If a range is used, you can use any combination of the above range notations.

Example:

The following example points to expanded rows 5 through 10 in design-time row 2:

```
row[2(5:10)]
```

Note: If row segment 2 expands to 15 rows, the function operates on only expanded rows 5 through 10.

Example:

The following example identifies columns C through E in design-time column A:

```
column[A(C:E)]
```

Example:

The following example points to expanded rows 1, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15 and 17 in design-time row 2:

```
row[2(1,3, 5:10, 12:15, 17)]
```

Note: When the grid contains suppression properties, expanded rows and columns may be suppressed. For information on suppressing data, see "Conditional Suppression" on page 189.

If the Range argument refers to a number of expanded rows that is greater than the maximum number of rows expanded in the segment, the extra rows are ignored.

Example:

In the following example, expanded rows 6 through 10 are identified, but segment 1 contains only 3 expanded rows. In this situation, the function works only on expanded rows 6 through 8:

```
row[1(6:10)]
```

If none of the expanded rows in the Range exist, the entire axis reference is ignored.

Example:

The following example ignores the reference to 23 if segment 3 only contains 10 expanded rows:

```
row[3(23)]
```

Example:

If you enter a **larger starting range than ending range**, the system internally switches them around.

Example:

The following example shows how the range is reversed:

```
row[1(7:5)] becomes row[1(5:7)]
```

Multiple references to the same expanded rows or columns are valid. However, this may cause the same rows or columns to be included twice in an expression.

Example:

The following example sums expanded row 5 twice:

```
row[2(3,5,7,5)].sum
```

Example:

The following example specifies expanded rows 3, 4, 5, 6, 7, and row 5. It includes row 5 twice in the calculation of the average:

```
row[2(3:7,5)].ave
```

Identifying Multiple Segments with Ranges

The syntax for a range in a segment range is:

```
AXIS[Segment Start : Segment End (Range Start : Range End)]
```

where *Segment Start* and *Segment End* refers to multiple segments.

Example:

The following example points to expanded rows 5, 6, and 7 in row segments 1, 2, 3, and 4:

```
row[1:4(5:7)]
```

Example:

The following example points to expanded rows 5, 7, and 9 in row segments 1, 2, 3, and 4:

```
row[1:4(5,7,9)]
```

If the segment argument refers to segments that do not exist in the axis, the segments are ignored. This includes suppressed rows or columns.

Example:

The following example points to expanded rows 4, 6, 7,8, 9, and 10 in row segment 1 and 4, 5, and 6 in row segment 3 and all expanded rows in row segment 7:

```
row[1(4, 6:10); 3(4:6); 7]
```

Multiple Calculation Iterations

You can specify the maximum number of calculation iterations for all grids and cells in the `fr_repserver.properties` file to resolve dependencies within references in formulas. During the calculation process of a grid, it may be necessary to evaluate a cell multiple times due to reference precedence. This usually occurs in grids with references to other grids. The maximum iteration property indicates the number of times a formula cell can be evaluated before it is marked as unresolved. Setting the maximum iteration property avoids the possibility of cells, with circular referencing, being evaluated an infinite amount of times. Circular referencing occurs when one cell refers to another cell, which then refers to the original cell.

If there are no circular references and calculation cells are returning #Error, you can increase the maximum iteration property value. For more information, see Oracle Enterprise Performance Management Workspace Administrator's Guide.

Using the Formula Bar

The formula bar provides a central location for the administration of formulas and selection of members when setting up grids in Financial Reporting.

Note: You can type selected functions to pick members dynamically. See Table 13 on page 47 for a list of functions that can be used in the Formula Bar and Table 14 on page 49 for a list of functions that cannot be used in the Formula Bar.

The formula bar contains a text box for the entry of formulas and a drop-down list box of functions to choose from when building formulas. If you select a member in a grid, member selection is activated on the formula bar.

The formula bar is displayed below the toolbar so you can easily access its functionality. It is visible but disabled when you are not using grids.

The Financial Reporting formula bar is similar in functionality and appearance to the formula bar in Excel. You can use the formula bar to perform the following tasks on grids:

● Define, edit, and delete a formula in a cell, column, or row

● Modify member selection for a column or row

Example Report with Formulas

You can use the formula bar to create formulas that total data, average data, or perform other functions of your choosing. When creating formulas for rows that summarize data for the year, for example, you use the formula bar to select the functions and dimensions that return your result. The following example illustrates this information:
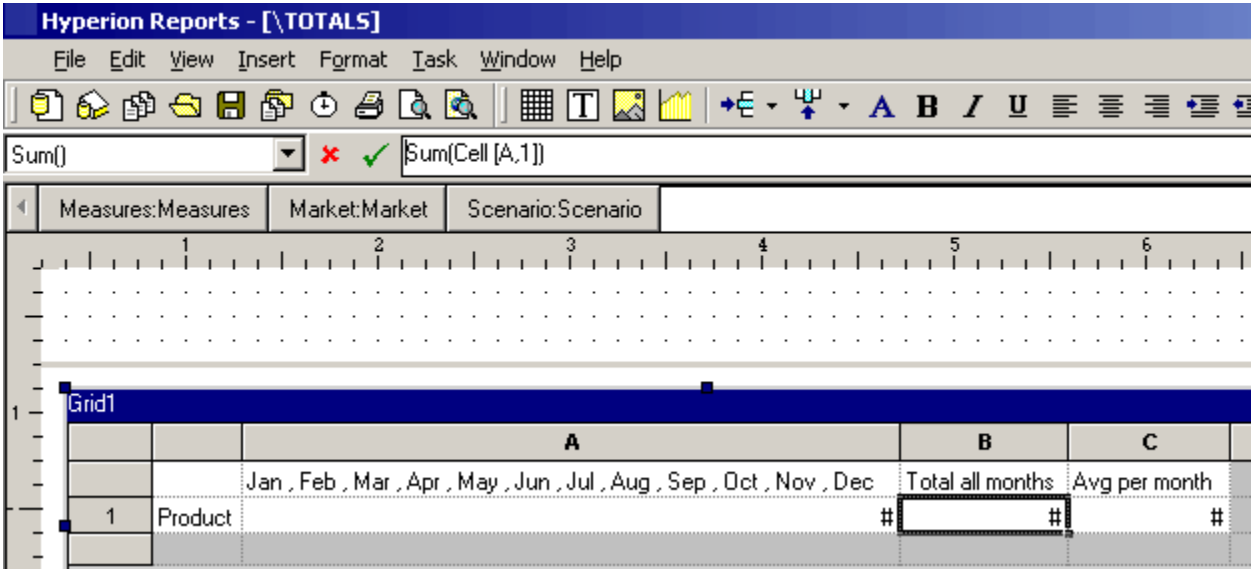
● Monthly total figures for the Product dimension

● A total for all months, calculated using the Sum function

● An average amount per month, calculated using the Avg function

Note: Use custom headings to create titles for the Total and Average columns. This is described in Chapter 4, "Building Reports."

To create this example, you would create a grid in the designer with Product on the rows and Year on the columns. Double-click Year to bring up member selection. Place all twelve months in the selected pane and remove Year. Click **OK**.

After you select the members, insert two formula columns: one for the annual total and another for the average monthly amount.

In our example, the first formula column that falls outside the months of the Year member contains a Sum function. This function adds the figures for each month. Since all months are defined in one cell only, the reference is to that cell location. The formula is built in the formula bar:

```
Sum(Cell [A,1])
```

The second formula column calculates the average of the months for the Year member. Because there are 12 months in a year, the Avg function adds all monthly totals and divides the total by 12. The formula is:

```
Average(Cell [A,1])
```

In general, there are two ways to specify a data formula in a grid, a row/column formula, or a cell formula:

- Row/Column - apply one formula to the entire row or column, relative to each cell in that row or column. You define a formula by clicking on the formula row or column header to highlight the entire row or column, then entering the formula in the formula bar. There are some performance benefits when applying row/column formulas.

- Cell - apply a formula only to cells in a formula row or column. You define a formula by clicking on the cell, selecting Use a Custom Formula from the properties sheet, and entering the formula in the formula bar. Also, if the cell intersects a formula row and formula column, you can select to use the row formula or the column formula as the cell formula. For more information, see "Calculating at the Cell Level" on page 139.

Therefore, if a formula repeats for each cell in a row or column, use a row/column formula. If different formulas are performed on each cell, use a cell formula.

➤ To access the formula bar:

1 Open or create a report.

2 Select a dimension heading or formula row/ column in the grid to enable the formula bar.
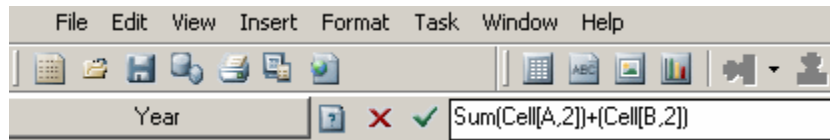
Creating Formulas Using the Formula Bar

When you select a cell, column, or row containing a formula specification, you can apply a unique formula to that cell.

For example, the custom formula depicted above adds the value of the cell located at A,2 to the value of the cell located at B,2.

Tip: See the following list to optimize formulas:

- Use row/column formulas as opposed to cell formulas whenever possible.

- Use reference properties instead of functions when possible. Rows, columns, or cell references can have a property associated with it. For example, the row reference: `[1:5].sum` produces the same result as using the Sum function; `Sum([1:5])`. However, the first formula executes faster since it is being used as a reference property.

- Avoid using cross-axis references and consider using a cell reference if possible.

- Use parentheses only when necessary. Improper use of parentheses can result in unnecessary evaluation iterations within the evaluation routine of the calculation engine.

➤ To create a formula using the formula bar:

1 Open or create a report.

2 Insert a grid.

3 Insert a formula row or column and select the formula cell. Alternatively, you can apply a formula to the entire column or row by selecting it.

> **Note:** When you use a cell formula within a row or column formula, the cell formula should reference the cells exactly (intersection) and not the row/column only.

4 Create a formula for the cell using one of the following methods:

- Type the formula directly into the formula bar.

- Use the drop-down menu on the formula bar, shown below, to select the function to be used in the formula. For guidance on creating formulas, see "Defining Formula Rows or Columns" on page 128. For a description of available mathematical functions, see "Mathematical Functions" on page 202.

> **Tip:** When using the formula bar, you can access Function help by clicking the Help button.
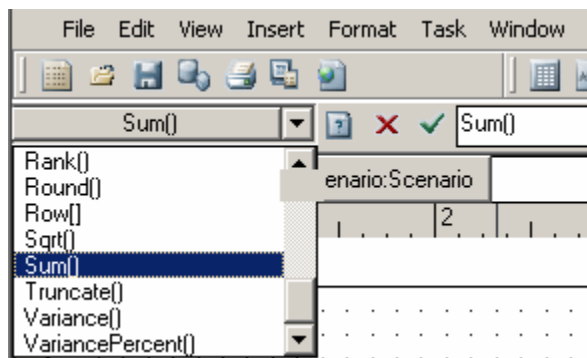
5 Validate the formula using the checkmark, ✔, on the formula bar.

Editing Formulas Using the Formula Bar

You can use the formula bar to modify a formula within a cell in a grid. The ability to edit a formula with ease is essential, as formula syntax is likely to change for reporting purposes.

➤ To edit a formula using the formula bar:

1 Open a report that contains a grid.

2 Select a formula cell, formula row, or formula column that contains or uses a formula. The associated formula is displayed in the formula bar.

3 Modify the formula in the formula bar. You can use the drop-down list of functions, to select a formula.

4 Validate the formula by clicking the checkmark, ✔, in the formula bar.

The validated formula is displayed in the formula bar.

Deleting Formulas

You can delete a formula from a grid if you no longer want to use the formula in the grid. You use the formula bar to delete the formula from a cell, formula row, or formula column.

➤ To delete a formula:

1 Select the cell and highlight the formula in the formula bar.

2 Click the **Delete** button, ✖.

3 Verify the deletion of the formula by performing the following steps:

    a.   Click the checkmark, ✔, in the formula bar.

    b.   Click another cell within the grid to reset the formula bar.

    c.   To verify deletion of the formula, click the cell from which you deleted the formula.

Modifying Member Selection Using the Formula Bar

When working with members in a grid, you can use the formula bar to modify the selected members.

The following example shows a textual modification of member selection using the formula bar.

Note: The entry of member names in the Formula Bar is not case-sensitive.

First, you select the heading cell in the grid. The dimension is displayed in the button on the Formula Bar. Next, you can use the Formula Bar to dynamically enter the member function for the selected dimension.

Note: A member function can be entered dynamically on data heading cells. For more information on member functions and syntax, see "Assigning Members Using Functions" on page 47.

➤ To modify member selection using the formula bar:

1 Open or create a report.

2 Select a heading cell of a data row or column in the grid.

3 On the formula bar, click the dimension button, then use the **Select Members** dialog box to select or remove members.

The new members are displayed in the grid. For information on using member selections, see Chapter 2, "Selecting Members for Report Designers."

Note: When you select a member in the grid, the dimension button on the formula bar is activated. You must indicate a member that exists within the current dimension.

● Modify the member name(s) in the text box on the formula bar.

● Dynamically enter a member function for a dimension using the formula bar. For member function syntax, see Table 13 on page 47.

Note: You cannot combine the use of numerical functions with member functions; that is, `Sum(Children of (Product) (Inclusive))`

4 Click ✔ to accept the member entry.

The grid is set to obtain data for the new member/member function.

Accessing Property Sheet Features

When you select a report component, a corresponding property sheet is displayed on the right side of the design area. When you select another component, the category and the property sheet features change. For example, when you select a cell, the **Cell Properties** sheet is displayed. You can use the property sheet to make modifications to the selected component.

In general, the property sheet enables you to set various options for the currently selected report component. For more information, see Chapter 1, "Getting Started with Financial Reporting."

Calculating at the Cell Level

A cell in a formula row or column can contain a formula. You can create a custom cell-level formula on cells in a formula row or column. When you select a formula cell, the Cell Properties sheet allows you to choose a calculation preferences:

● If the cell is an intersection of a formula row and formula column, you can choose whether calculation is based on the row formula, the column formula, or a new custom formula.

● If a cell is located in a formula row, you can choose whether calculation is based on a row formula or a new custom formula.

● If a cell is located in a formula column, you can choose whether calculation is based on a column formula or a new custom formula.

The following table shows an example of a cell that is calculated to display the % variance. Cell D4 displays the % variance between the sum of Jan and the sum of Feb, specifically, ((356-350)/350) *100=1.71%. A cell level formula gives the intended result by placing a custom formula in the cell D4. The formula needed to get the correct result is (([B]-[A])/[A])* 100.

Table 27   Reason for Using Cell Level Calculation

		A	B	C	D
	Total Corp	Jan	Feb	Var	%Var
1	**Cola**	100	105	5	5.00%
2	**Root Beer**	200	203	3	3.00%
3	**Grape**	50	48	(2)	(4.00%)
4	**[1].sum**	**350**	**356**	**6**	**1.71%**

➤ To calculate at the cell level:

1 Open a report.

2 Select a formula cell or cells in which you want to enter a formula.

3 In the **Calculation order** area of the Cell Properties sheet, select one of the following options:

- Select **Use the row formula** if you want the row calculation applied to the cells.

- Select **Use the column formula** if you want the column calculation applied to the cells.

- Select **Use a custom formula** if you want to add a new formula, then perform the following actions:

a. Go to the formula bar and select a function from the function drop-down menu.

b. With your cursor in the formula text box, complete the formula.

c. Select **File then, Print Preview** to see the results of your formula.

Note: You can select multiple contiguous formula cells in a formula row or column to change the calculation order.

Using Text Functions to Display Information

You use text functions to display report information. You can display information about a report, such as its description, information about a database that is associated with a grid, and a piece of data from your database connection.

You can use text functions in text boxes, data rows or columns, formula rows or columns, or Pages headings. Enclose the formula in double angle brackets (<<) and (>>) to distinguish different text functions. The font for the text function can be formatted like regular text. The text functions and their syntax are defined in "Text Functions" on page 208.

Note: You must format the entire text function, including the angle brackets, with the same font properties in the text box.

➤ To use text functions to display information:

1 Open a report, then select one of the following items:

- Select a text box.

- Select a heading cell, then Custom Heading from the property sheet.

- Select the **Pages** drop-down list in a grid, then Custom Heading from the property sheet.

2 Click the **Insert Function** button. The **Insert Function** dialog box is displayed.

3 To select the desired function, perform an action:

- Double-click the function in the **Available Functions** list to add it to the **Selected Function** list.

- Select a function from the **Available Functions** list and click the **Add** button, ⬜, to add it to the **Selected Function** list.

4 In the Select Function area, make your changes to the function's parameters, then click **OK.**

Note: A report designer has the option to enable or disable error messages for text functions that are displayed in the grid or text object. The default is to display error messages. To disable this feature, from the Grid Properties sheet or the Text Properties sheet, deselect the **Show Text Function Errors** option.

5 Select **File** then, **Print Preview** to run the report and display the data produced by the function.

Freezing Grid Headers

You can select a grid for which you want the row and column heading labels to display when scrolling an HTML report in Workspace.

➤ To freeze the row and column headings of a grid:

1 Select the grid for which you want to freeze the row and column headings.

2 On **Grid Properties – General** category, select **Freeze Grid Headers**.

3 To unlock rows and columns, select the grid and clear **Freeze Grid Headers.**

Note: If you want to view the report within the entire Workspace area, you must expand the grid size in Reporting Studio.

Browser behavior when freezing grid headers

Note the behaviors specific to using Internet Explorer (IE) and Firefox (FF):

- **Scrolling**. In IE, the row and column headings are locked; in FF, only the column headings are locked.

- **Grid height and width**. The height and width set by the designer is visible in HTML preview for both IE and FF. Scrollbars are only shown when all rows or columns do not display. When Freeze Grid Headers is turned on, the auto-size property is ignored.

- **Horizontal scrolling**. When the width of the grid exceeds the width of the design, the horizontal scrollbar is shown. However, the behavior of the horizontal scrollbar is different in the two browsers. In IE, the row headings are adjusted so that they are always shown; in FF, the horizontal scrollbar will scroll all the columns, including the headings. The vertical

- **Vertical scrollbar position**. In IE, the vertical scrollbar is shown at the right-most position in the table. In FF, the scrollbar appears underneath the final column heading, cutting into the final column. To accommodate this behavior, an additional column is added to the grid so that the last column is not covered up by the scrollbar.

- **Scrolling speed**. Scrolling speed is faster in FF because the scrolling is built in and does not require JavaScript as IE does.

6

Defining the User POV

Every data value in a report is derived from the intersection of a member from each dimension in an Oracle Essbase, Planning Detail, or Financial Management database connection. Financial Reporting enables a designer to place these dimensions on the report grid or user point of view (POV). Report viewers can change the member selected for dimensions on the user POV. This enables report viewers to customize the reports to fit their needs. The user POV can also be used in books. For more information on selecting the user POV as a member in the book POV, see Chapter 14, "Working with Books and Snapshot Books."

In a report, the member specified for a dimension in the user POV is used for all grids with that dimension on the user POV. For example, if you select the Budget member for the Scenario dimension, all grids in the report with scenario in the user POV use Budget when you retrieve data. The user POV is not displayed if all of the dimensions are placed on the grid.

The following criteria are used to show dimensions on the user POV bar:

- Dimensions not currently defined on a row, a column, or a page

- Dimensions on a row, a column, or a page that are flagged for the current POV

- Dimensions without a member selected on a grid POV

- Attribute dimensions dragged to the POV area in the Dimension Layout dialog box

Setting Up the User POV from the Report Designer

You can set up the user POV for a database connection while designing reports. This limits the members available on the user POV for that type of database connection. The user POV setup specified remains in force for all grids that uses that type of database connection. For more information on member selection, see Chapter 2, "Selecting Members for Report Designers." For information on setting up the user POV in the Report Designer workspace, see Oracle Enterprise Performance Management Architect Administrator's Guide.

➤ To set up the user POV in the Report Designer:

1 **Open a report that contains a grid for which you want to set up the POV.**

2 Select **Task then, Set Up User POV**.

Figure 17   Set Up User Point of View Dialog Box
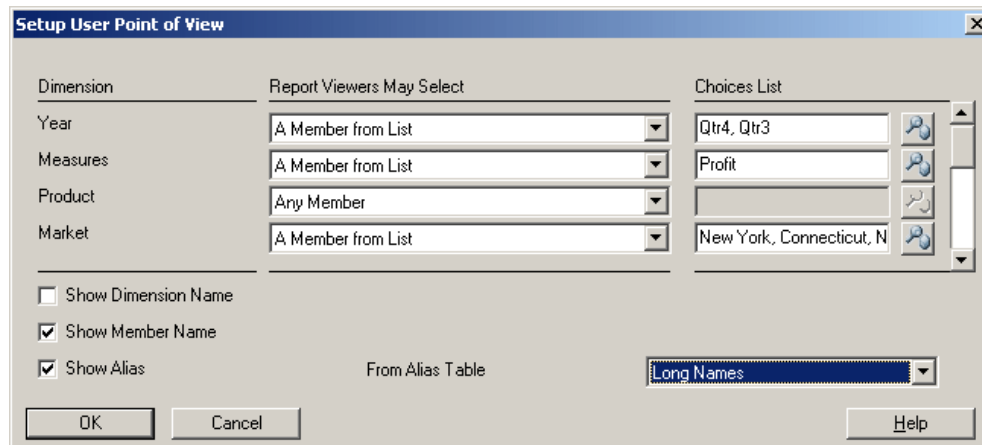
3 Select **Any Member** or **A Member from List** for a dimension in the **Report Viewers May Select** column.

4 When the **Report Viewers May Select** column is set to **A Member from List**, click [icon]. The **Select Members** dialog box is displayed.

5 Select a member from the **Select Members** dialog box, then click **OK**.

Note: For more information on selecting members, see Chapter 2, "Selecting Members for Report Designers."

6 Select the **Show Dimension Name and Show** Member Name check boxes to display the dimension name with the member name.

7 Select the Show Alias check box to display alias names, then select an Alias Table from the **From Alias Table** drop-down list.

Note: If Financial Management is the database connection, Show Descriptions is displayed instead of Show Alias.

8 Click **OK**.

Selecting Members for the user POV from the Report Designer

The user and grid POV enables report viewers to customize reports by selecting members for dimensions. The following rules apply:

● Only one member can be selected for a dimension on the POV.

● The default member for a dimension is the top member.

● For an attribute dimension, you can specify None. In this case the attribute dimension is not used in the report.

➤ To select a member for the user POV:

1 Open a report with dimensions displayed in the user POV.

2 On the user POV, click the dimension for which you want to select a member. The Select Members dialog box is displayed.

3 Select the member to run for this report, then click **OK**. The member is displayed on the user POV.

4 Optional: If you do not want the attribute dimension to be used in the report select None.

> Note: The following figure shows the member selection options for an attribute dimension.

Figure 18   Attribute Dimension Member Selection

7

Providing for Detailed Data and Documents in Reports

Providing Expansions and Related Content includes the following topics and tasks:

Expansions and *Related Content* are features that enable the designer to specify detailed levels of data in a report. You can design your report to allow end users to view detail data residing in the same report using Expansions or in a linked report using Related Content.

For example, you might want to provide the detail of a Market dimension by displaying the areas that comprise a market, such as East, West, North, and South.

- **Using Expansion.** You can set up viewing of same-report detail data by enabling expansion of summary rows and columns. A report set up with expansion enables end users to select a summary-level row or column and view its related detail in the same report.

- **Using Related Content.** You can select a data cell and set up links to objects in Financial Reporting, Web Analysis, Application Builder J2EE^{tm}, and URLs. A report set up with Related Content enables end users to move between documents in different applications.

You can view a report that has expansion and Related Content enabled during the design phase by selecting File, then Web Preview.

> **Note:** The report designer must save the report as a Report type to view expansion and Related Content in the Report Designer workspace. Reports saved as snapshots lose this capability.

Setting Up Expansions to Access Detail Data Within Reports

You can design a report to display detail rows and columns of a grid at the request of the end user. You do this by enabling the expansion of a dimension that has parent-child relationships among its members. For example, if you enable the Time dimension to expand, users can expand a row that displays quarters into months.

Users access detail rows and columns by selecting summary rows and columns from reports that are displayed.

➤ To set up access to detail data within a report:

1 **Open a report.**

2 **Select the row or column headings for which you want to enable expansion.**

3 **Select the Allow Expansion check box in the Heading Row or Heading Column Properties sheet.**

> **Note:** When Hybrid Data is available for a base-level member in Oracle Essbase, an expansion arrow is displayed next to the base-level member and you can expand into Hybrid Data. Expansions are not allowed on rows with line-item-detail or supporting detail, or on columns containing a row with line-item-detail. For more information on displaying line item details, see "Displaying Line Item Detail for Financial Management" on page 116

4 **Double-click the dimension to select members to expand. For more information on selecting members, see Chapter 2, "Selecting Members for Report Designers."**

Positioning Expansion Rows and Columns

You can specify whether expanded items are displayed before or after the dimension's summary-level row or column.

➤ To position expansion rows and columns:

1 **Open a report.**

2 **Click the grid for which you want to specify expansion positions.**

3 **On the Grid Properties sheet, select the Position category.**

4 **Do one of the following in the Position of Expansions box:**

- To display expansions after the summary-level row or column, click **After Parent**. This is the default.

- To display expansions before the summary-level row or column, click **Before Parent**.

Attaching Cell Documents in a Report

Cell documents that are attached at the data source can be accessed and printed to reports. The attached documents, (Microsoft Word, Excel, or PowerPoint documents, PDF or .txt

documents) print at the end of a PDF or snapshot report. The documents is accessed in the HTML client when drilling into a cell through related content. In addition, footnotes can be inserted into a text object or text cell of the report that lists information about the attached cell documents by selecting the ListOfCellDocuments option from the property sheet.

To include cell documents in a grid's report, they must exist in Oracle Essbase (Linked Reporting Objects) or Financial Management (cell attachments). The data cell must be selected with the RetrieveCellDocument option. All cell documents have a POV associated with the data cell to which they are attached.

Note: In Oracle Essbase, Linked Reporting Objects are attached through the Excel Add-in. In Financial Management, cell documents are attached through the Financial Management Web client. For more information, refer to the respective product's documentation.

A data cell can contain multiple cell documents. If a data cell contains cell documents in the Financial Management or Oracle Essbase data source, a designer can extract those documents, based on the given cell's POV. Cell documents can be attached to reports contained in books and snapshot books.

Supported File Microsoft Office File Types

The following document types are supported as cell documents:

- Microsoft Word files (*.doc, *.rtf), versions 2000, 2002, and 2003

- Microsoft Excel files (*.xls, *.cls), versions 2000, 2002, and 2003

- Microsoft PowerPoint files (*.ppt, *pps), versions 2000, 2002 and 2003

- PDF files (*.pdf)

- Text files (*.txt)

Supported Print and Print Preview Options

The following table describes the support matrix of cell document output for Reporting Studio and Financial Reporting.

Report Output Type	Support	Comments
Reporting Studio Print and Print Preview	None	- The Print or Print Preview commands do not print cell documents. - The ListOfCellDocuments function returns the FileName and Description parameters, but not the PageNumber parameter.
Financial Reporting Export to PDF — in Workspace	Microsoft Office file types, PDF and .txt files	A PDF file is generated. Only supported file types are included.

Report Output Type	Support	Comments
		Non-supported cell documents are not included in the PDF. Ignored documents are logged in the FRPrintSrv.log file. ● The ListOfCellDocuments function returns the FileName and Description parameters for all cell documents, including non-supported documents. The PageNumber parameter is only displayed for the supported Microsoft Office documents.
Financial Reporting PDF Preview — in Workspace	Microsoft Office file types, PDF and .txt files.	● The PDF file is shown in Workspace. ● A PDF file is generated. Only supported file types are included. Non-supported cell documents are not included in the PDF. Ignored documents are logged in the FRPrintSrv.log file. ● The ListOfCellDocuments function returns the FileName and Description parameters for all cell documents, including non-supported documents. The PageNumber parameter is only displayed for the supported Microsoft Office documents.
Financial Reporting HTML Preview — in Workspace	All file types	● All cell documents in HTML preview are hyperlinks. When you click a cell document hyperlink, the Related Content dialog is displayed. All cell documents associated with the corresponding data cell are displayed. ● When you click a document in the Related Content dialog box, the browser's File Download dialog is displayed where you can choose to open or save the cell document. When you choose Open, the cell document displays in a new browser. The associated file type for the cell document must be installed on the user's computer. ● Depending on the user settings on the browser, the cell document may be opened automatically in a new browser window.

Report Output Type	Support	Comments
		● The ListOfCellDocuments function returns the FileName and Description parameters, but not the PageNumber parameter.

In Reporting Studio, you must first save the reports as a snapshot if you wish to print-preview the contents of cell documents.

Reports containing cell documents can be saved through Reporting Studio as Snapshot output. You can use the Save option to save the report as a snapshot in the repository. The cell documents are attached to the end of the report.

In Workspace, you can view reports containing cell documents in PDF or HTML output:

● PDF output. You use the Export option to save the report in a PDF file outside the repository. The cell documents are attached to the end of the report.

● HTML output. You use the Save or Save As option to save the report into the repository. The cell documents are stored with hyperlinks to the report.

➤ To attach cell documents:

1 In Reporting Studio, create or select a report that uses a Financial Management or Oracle Essbase data source in the database connection.

2 Select a data type cell in a grid. On the **Cell Properties** sheet, select the **Retrieve Cell Documents** check box.

Note: For optimum retrieval performance, select Retrieve Cell Documents only for cells with attachments to include in the report.

3 If cell documents exist for the selected cell, they are appended to the report when printed.

Considerations

Please make note of the following items when working with Cell Attachment:

● Include the correct supported extensions for files.

● Files which are corrupt or improperly uploaded to the ADM provider (through Financial Management client or Oracle Essbase Add-in for Excel) will not print.

● We do not support Microsoft files containing macros or that trigger UI components requiring user input. Some MS files with macros perform operations when the file is opened which include the launching of dialogs requiring user input. Files that display dialogs or UI components requiring user input may not be available to print. Additionally, this may also hold up the completion of the PDF generation process. The server's administrator may need to kill the application through Task Manage to resume printing activities. Because the application is launched under the SYSTEM account, it may not be visible since the process was not initiated by the login account.

● Documents containing file extensions that are not properly registered to print will fail.

Printing Cell Documents

You can use the Page Setup dialog box - Page Tab, to print cell documents with consecutive page numbers. The starting page of the first cell document is determined by the length of the report. Each document prints on a new page. If you do not select to print consecutive numbers on your cell documents, the page numbering reverts to the setting of each document.

For information on setting your print option for cell documents, see "Changing the Page Setup" on page 196.

Note: Ghostscript installed on the Financial Reporting print server is required in order to print PDF files. See the Chapter 15, "Administrative Tasks for Financial Reporting" chapter for supported Ghostscript versions.

Note: Text files are inserted into a Word template before the actual printing occurs. For information on customizing the template, see the Chapter 15, "Administrative Tasks for Financial Reporting" chapter.

Note: In Financial Management, when you upload files for attachments to cell, the file name truncates to 20 characters. You can change the document's name. Make sure to retain the file name extension (.doc,.xls).

Printing a List of Attached Cell Documents

You can use the ListOfCellDocuments text function to display a list of all cell documents and attributes such as description and start page number that are retrieved in the report. The function can be entered into a text object, text cell, or text cell heading. See "ListOfCellDocuments" on page 233 for information on this function.

Setting Up Links to Related Content

Related Content allows a designer to set up links to Web Analysis, Oracle's Hyperion® Interactive Reporting, Financial Reporting, and custom links to your own URL.

Changing the Related Content Server for Multiple Reports or Grids in the Repository

After migrating content from another server, you can use Workspace to change the server for selected reports, grids, or both in the repository by specifying a new URL or a substitution variable. You may want to change the related content servers; for example, you might do this when moving your reports and grids from a development server to a production server.

For instructions on changing the related content server in the repository, see the *Oracle Enterprise Performance Management Workspace User's Guide*

Creating Links to Related Content

You can design a report that provides access to another report or a URL through a hyperlink. You can create numerous links through a data cell on the report design. Links can be created to reports through your local Financial Reporting server, or remote Web Analysis, and J2EE servers, if they are registered through Shared Services or on the `RelatedContent.properties` file. End users can click a cell with Related Content links, then select a linked report from a Related Content menu.

When using Related Content on a report, the system sets the point of view (POV) of the report to that of the selected cell. For example, if the Gross Margin row of the Canada column is selected, the POV for the account is set to Gross Margin and the POV for the entity is set to Canada before the linked report is displayed.

Note: The POV context is not passed when you link to books through Related Content.

You can define Related Content for data cells within a row or column. You can specify the same report for a group of cells by selecting the desired cells in the grid and then defining the Related Content. Also, based on the type of Related Content selected, you can modify properties, such as their label and URL and default display options.

Object-level security is not enforced when you select Related Content, which enables you to select any report among the entire contents of each repository. However, object-level security is enforced when the report is requested for viewing.

➤ To create a link to Related Content:

1 Select a report for which you want to specify Related Content.

2 Select the rows, columns, or data cells for which you want to provide a link to Related Content.

3 From the Property sheet, select the Add **Related Content** check box, then click the **Setup** button. The Add Related Content dialog box is displayed.

Each Hyperion server repository is listed as a node in a tree view. The local Financial Reporting repository is listed with the repositories from the remote servers: Hyperion J2EE, and Web Analysis. The remote servers are obtained from the `RelatedContent.properties` file or Shared Services.

4 You can link a folder for Related Content, which enables an end user to select from the complete contents of the folder, or expand the contents of a folder and select a report. To make a selection, perform any of the following actions:

   ● To select a folder, highlight the folder in the **Available** list, then click the arrow button to move the folder to the **Selected Related Content** area.

   ● To select a report object, expand the folder by clicking the node (+), highlight a report object, then click the Add button, , to move the report to the **Selected Related Content** area.

5 You can modify the properties of the selected report object while you add the link or after you add the link:

- To modify properties while selecting a report object, select the **Show Properties dialog when adding content from Hyperion sources** check box. As you select a report object to link, the Related Content Properties dialog box is displayed.

- To modify properties after selecting report objects, highlight the report object in the **Selected Related Content** list, then click the **Properties** button.

  For information on changing properties, see the "Modifying the Properties for Related Content" on page 154.

6 Select as many additional links as needed.

> **Note:** For information about changing the properties of the links, see "Modifying the Properties for Related Content" on page 154.

7 To change the position of a report object within the **Selected Related Content** list, select the object, then click the Up arrow ⌃ or Down arrow ⌄ to move the report object up or down, respectively.

8 Click **OK**.

Removing Access from Related Content

You can remove a link from your report to deny Related Content to end users.

➤ To remove access to a linked report:

1 Select a report that contains links to Related Content.

2 Select the rows, columns, or data cells from which you want to remove a link for Related Content.

3 From the property sheet, select the **Add Related Content** check box, then click the **Setup** button. The **Add Related Content** dialog box is displayed.

4 Highlight the report object to remove in the **Selected Related Content** list and click the Remove arrow ◁ button.

5 Click **OK**.

Modifying the Properties for Related Content

You can modify properties of a selected report object. Based on the type of report object selected, you can modify such properties such as its label or URL, and you can set default display options.

➤ To modify properties for linked objects:

1 Create a link to a related content in the **Add Related Content** dialog box. For information on creating a link, see "Creating Links to Related Content" on page 153.

2 In the Add **Related Content** dialog box, select a report object in the Selected Related Content list, then click the **Properties** button to display the Related Content Properties dialog box.

Related Content Properties Dialog box

The items in the Related Content Properties dialog box that are displayed for editing depend on the report type you selected. For example, for Financial Reporting, all display options are provided for a report, snapshot, book, and snapshot book. However, for a custom link, only the label and a URL fields are available.

The following items are available for editing:

- Label - Enables you to change the name of the report object link.
- URL tabs - Displays the URL of the linked object which may be modified if needed.
- Display Options:
  - In the Provide list. For Financial Reporting, select the formats that can be viewed by the end user; HTML and / or PDF. For Web Analysis, select whether the report can go to the Java Client, Workspace, or both.
  - In the Default list. Select the format to link with the report name as the primary selection. The format not selected is listed as the secondary selection.

➤ Click **Save As Default** to update your current selections.

Using Smart View for Office

Smart View provides a common Microsoft Office interface for the following Hyperion products:

- Oracle Essbase
- Financial Management
- Planning
- Financial Reporting
- Interactive Reporting
- SQR Production Reporting[tm]
- Web Analysis

The centralized interface enables simultaneous use of multiple Hyperion products, and improves integration with Microsoft Office (2000, 2002, and 2003). The Smart View implementation provides the following Workspace functionality:

- Exports the current page of the current data object to Excel, Word, or PowerPoint
- Exposes Financial Management and Oracle Essbase functions in Excel, Word, and PowerPoint content
- Notifies you when you can upgrade to new releases of Hyperion Smart View.
- For more information on using the capability, see *Oracle Enterprise Performance Management Workspace User's Guide*

8

Previewing and Printing Reports

You can preview and print reports and Snapshot reports from Reporting Studio or a Web browser through Workspace. As you preview or print a report, the data is refreshed with new data, calculations, and formatting.

Snapshot reports contain data retrieved at the time the report is saved as a snapshot. The data in a snapshot report remains the same; changes in the database connection since the snapshot was last saved are not reflected when it is previewed or printed.

> **Note:** For viewing and printing options provided through the Workspace. See *Oracle Enterprise Performance Management Workspace User's Guide.*

Responding to Prompts when Previewing

If the report is designed with prompts, those prompts are displayed when you preview the report. You must respond to the prompt and provide the requested information by selecting members from the prompt list. You can also edit the prompts manually. If the prompts contain alias names, you can edit the alias names by converting to member names. For more information on defining prompts, see Chapter 2, "Selecting Members for Report Designers."

➤ To respond to a prompt when previewing:

1 From Studio Explore, open a report that has prompts.

2 Under the **Selection** column in the **Respond to Prompts** dialog box, perform an action:

● If the member is known, enter the member name in the text box for the respective prompt. If the text box is disabled, the prompt contains alias names. To edit the text box, select the

Edit Member Names check box. If multiple members are provided for the prompt, members must be separated by commas.

> **Note:** Selecting the Edit Member Names check box displays the member names in the text box, not the alias names. Edit the member name associated with that alias.

- Click the **Go to Member Selection** button. The **Select Members dialog** box opens. The default member is listed in the right panel - selected area. Click the Add to Selected arrow and Remove from Selected arrow located in the center panel of the dialog to move members between the panels.

  For more information on defining members, see Chapter 2, "Selecting Members for Report Designers."

3 **Select OK.**

4 **Optional:** To undo changes made to prompts, click **Reset from the Respond to Prompts dialog box.**

5 Click **Run.** The report or book is displayed.

Previewing the Current User POV Settings

In Workspace, a user can preview the user POV before running a report and make changes to the user POV from. For example, it may save time for users to verify that the members on the user POV are appropriate before running the report instead of after the output is displayed.

For information on how a user can preview the user POV settings for a report or book from Workspace, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Setting Preview Preferences

Using Workspace, you can set preview preferences. You can preset how to view a report or book. The default settings for opening a report or book are PDF Preview or HTML Preview. For detailed information on this option, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Previewing Reports in a Web Browser

You can use the Web Preview feature in Studio Explore or the Designer to preview reports in a Web browser through Workspace.

➤ To preview a report in a Web browser, open any type of report and click the **Web Preview** button on the toolbar. Workspace provides HTML and PDF preview and printing options.

For information on viewing reports and books using Workspace, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

Previewing Reports in Reporting Studio

You can preview a report to view the contents before saving changes or printing. You can zoom in or zoom out, scroll through the report, or print the report. When you preview a report, the data in the report is refreshed. Data in snapshot reports are not refreshed.

Books are previewed using a Web browser through Workspace. For information on previewing books and reports, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

➤ To preview a report:

1 From Studio Explore, highlight a report or snapshot.

2 Select **File then, Print Preview.**

3 **Optional:** Do one of the following tasks:

- Select **Print** to print the report.

- Select **Next Page** to display the next page of the report.

- Select **Prev Page** to display the previous page of the report.

- Select **Two Page** to preview two pages side-by-side.

- Select **Zoom In** to magnify the size of the page on the screen.

- Select **Zoom Out** to decrease the size of the page on the screen.

- Select **Close** to close the Print Preview window.

- Use the **Page Up** or **Page Down** keys on your keyboard to scroll up or down, respectively.

4 Click **Close.**

Printing Reports

You can print any type of report. When you print a dynamic report, the data is refreshed. Data in snapshot reports is not refreshed. You can print a report in Explore or design area.

Books and snapshot books are printed through Workspace. For more information on printing books and snapshot books, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

➤ To print a report:

1 From Studio Explore, open a report.

Respond to prompts that are displayed and make necessary changes.

2 Select **File** then, **Print.**

Printing Tips for Report Designers

The following topics describe how report objects are printed on a page. You can place report objects anywhere in a report. However, the printed results are determined by the report properties and data.

Note: When printing reports containing overlapping objects, objects may not print as displayed in the designer, requiring you to rearrange the objects in your report. For more information, see Chapter 4, "Building Reports."

The following areas are described for designing reports from the Reporting Studio:

- "Positioning and Alignment" on page 160
- "Printing Text Boxes" on page 160
- "Printing Grids" on page 161
- "Printing Page Dimension Headings" on page 161
- "Printing Page Members" on page 161
- "Printing Headers and Footers" on page 162

Positioning and Alignment

You can set relative positioning on autosized report objects. This is an advanced positioning mechanism that gives you precise control over how report objects are positioned relative to one another. If none of the report objects in your report is autosized, then the relative positioning is ignored.

If you set the position of a report object to relative, all report objects within the design shift so that the distance between the autosized report object and fixed report objects remain the same.

For example, GridA is autosized and has horizontal positioning set to Center, therefore, GridA is printed in the center of the page. ChartA is linked to GridA, and has its vertical position set to Relative and is placed one inch from the bottom edge of GridA. ChartA is printed one inch from the bottom of Grid A.

If the alignment for ChartA is not set to relative, it is printed on the absolute coordinates in the layout of the grid, so it might overwrite Grid A.

Note: Vertical and horizontal positioning are not maintained after changes are made to the report.

Printing Text Boxes

You can set the autosize property for a text box. When you print a report, the height of a text box increases or decreases to accommodate all text that is entered in the text box. The width of the text box does not change.

Note: When you autosize, the maximum number of lines for viewing is 27. To view all lines of text, deselect **Autosize**.

If the autosize property is not set when you print a report, the report is affected in these ways:

- The text box is printed at the height and width of the grid.
- Text that does not fit in the text box is truncated.

Printing Grids

You can set the autosize property for a grid. When the autosize property is set and you print the grid, the height and width of the grid increase or decrease to accommodate all data in the grid.

When the autosize property is not set, the grid is printed at the height and width specified. If a row or column does not fit on a page, it is printed on subsequent pages. The columns are printed first using as many pages as needed, followed by the rows.

You use the positioning properties of the grid to align the grid on the page. Manually positioning the grid to the right or bottom of the page does not ensure that the grid will print on the right or bottom of the report.

When a grid is set to autosize, and does not fit on one page, it is printed on subsequent pages. The columns are printed first, starting on the left margin of the next page, followed by the rows, which are printed starting at the top of the next page.

Printing Page Dimension Headings

You can specify a page dimension heading for a grid using the Page Properties sheet. When you print a report, the page dimension heading is printed every time the page member changes.

The following list describes how the page dimension heading is printed:

- The text is left justified at the left edge of the grid.
- The text is autosized vertically, and the width is set to the width of the grid.
- The heading is printed above the first row in the grid each time the page member changes.

Printing Page Members

When you print a report, a new page is generated every time a page member changes. Using the Page Properties sheet, you can specify how to print the page using one of the following options:

- New Page, Top - The new page is printed at the top of the page. Use this option when a chart is linked to a grid and you want to ensure the chart and grid print next to one another every time the page member changes.
- New Page, Same - The new page is printed at the grid location specified. This option is used for the following situations:

❍ The grid has horizontal and/or vertical alignment properties set and you want the grid to print in the same position on each page. For example, if you set the grid position to Center/Middle, it is printed in the center of each page.

❍ When a chart is linked to a grid and you want to ensure the chart and grid print next to one another every time the page member changes.

● Same Page - The new page is printed immediately after the data from the previous page.

Note: If a chart is linked to a grid, the chart is printed once; not every time the page member changes.

Printing Headers and Footers

You can place an autosized text box in the header. However, if the text box height expands beyond the header, it prints beyond the header boundary.

You can place an autosized text box in the footer. However, if the text box height expands beyond the footer, the text is truncated.

Note: If an object is placed near the top or bottom of the page, it might overlap the header or the footer.

9   Formatting Reports

Formatting reports enables you to specify how report components, such as text boxes, grids, images, and charts, appear in your reports. For example, you can specify fonts and add borders. When you format a report, you define the properties of the components. The formatting you apply affects the printed and online report presentation.

Note: Each object has default formatting properties. You can use the default format properties if you do not want to format your report.

For general information about report objects, including overlapping objects, see Chapter 4, "Building Reports." For information about formatting charts, see Chapter 3, "Customizing Charts."

Formatting Text Boxes

You can format the text in text boxes using the following attributes:

● "Specifying Fonts for Text Boxes" on page 163

● "Aligning Text in Text Boxes" on page 164

● "Adding Borders and Shading to Text Boxes" on page 165

Specifying Fonts for Text Boxes

You can change the font of text in a text box.

➤ To specify a font:

1 Open a report and select text within a text box.

2 Select **Format then, Font**.

3 Specify the font, font style, size, and color.

4 To place a line through the selected text, select **Strikeout**.

5 To place a line beneath the selected text, select **Underline**.

6 Click **OK**.

Aligning Text in Text Boxes

You can align text in text boxes horizontally. You can also increase or decrease the margin of text in text boxes using the indent option.

The following table explains the text alignment and indentation option settings:

Table 28   Text Alignment and Indentation Options

Setting	Task
Alignment	Select Left, Center, or Right to specify the horizontal alignment for text in text boxes. For example, if you select Center, the text is aligned in the center of the text box.
Indent	Select the number of spaces to indent the text to the right for left-aligned text.
	Note: Indent functionality is limited to left-aligned text.

➤ To align text in a text box:

1 Open a report and create a text box or select an existing text box.

2 In the **Text Properties** property sheet, select one of the following from the **Position Object on Report - Horizontal** drop-down list.

● Select **None** to position the printed text at its current location regardless of whether report objects above it or to its left change in size.

● Select **Relative** to position the printed text relative to report objects to its left.

● Select **Left** to position the text box on the left side of the report.

● Select **Center** to position the text box in the center of the report.

● Select **Right** to position the text box on the right side of the report.

3 Select one of the following from the **Position Object on Report - Vertical** drop-down list.

● Select **None** to position the printed text at its current location regardless of whether report objects above it or to its left change in size.

● Select **Relative** to position the printed text relative to report objects above it.

● Select **Top** to position the text box at the top of the report.

● Select **Middle** to position the text box in the middle of the report.

● Select **Bottom** to position the text box on the bottom of the report.

Adding Borders and Shading to Text Boxes

You can add a border around a text box, and you can shade the area inside a text box.

➤ To add borders, shading, or both to a text box:

1 Open a report and select a text box.

2 In the **Text Properties** sheet:

- To place a border around the text box, select the **Show Border** check box.
- To add shading to the text box, select a shade from the **Shading** drop-down list.

Formatting Grids

Reporting Studio enables you to perform a variety of formatting options when working with grids. You can use the following functionality to format grids in the designer:

- "Expanding the View of a Grid" on page 165
- "Formatting Numbers in Grids" on page 166
- "Aligning Text in Grids" on page 168
- "Modifying Font Options" on page 170
- "Adding Borders or Shading" on page 171
- "Replacing Text" on page 173
- "Inheriting Cell Formatting" on page 174
- "Copying Cell Formatting" on page 175
- "Hiding Rows, Columns, or Grids" on page 176
- "Sorting Rows, Columns, and Pages" on page 177
- "Applying Conditional Formatting on Grids" on page 182

Expanding the View of a Grid

You can expand the view of a grid to the size of the Report Designer workspace. This is especially helpful when your grid contains many rows and columns. The expanded view enables you to locate cells more easily.

➤ To expand the view of a grid:

1 Right-click the title bar of the grid.

2 Select **Zoom**.

3 To return to the original view, right-click the title bar of the grid and deselect **Zoom**.

Formatting Best Practices

Cell formatting has precedence over row/column formatting and grid formatting. Cell formatting allows you to make exceptions to row/column formatting and grid formatting. Row/column formatting has precedence over grid formatting. Row/column formatting allows you to make exceptions to grid formatting. Therefore, the correct sequence in formatting a report is to first format the grid, then apply different formatting to rows/columns, then apply specific cell formatting.

Note: Conditional formatting takes precedence over all other formatting and replaces formatting previously set at the grid, row/column, or cell level. For example, if you use conditional formatting to change cell colors, yet want to retain a specific number of decimal places applied with regular formatting, you must specify both formats using conditional formatting.

Formatting Numbers in Grids

You can format how numbers are displayed in a grid. You can specify the following options for an entire grid or for individual cells, rows, or columns:

● Positive number symbols, including prefixes and suffixes

● Negative number symbols, including prefixes and suffixes and an option to display negative numbers in red

● Grouping and Decimal Symbols can be determined by the user's preferences settings or defined explicitly on the cells in a grid

➤ To format numbers in a grid:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select a cell.

3 Select **Format** then, **Cells.**

4 Select the **Number** tab.

Figure 19   Number Tab in the Format Cells Dialog Box
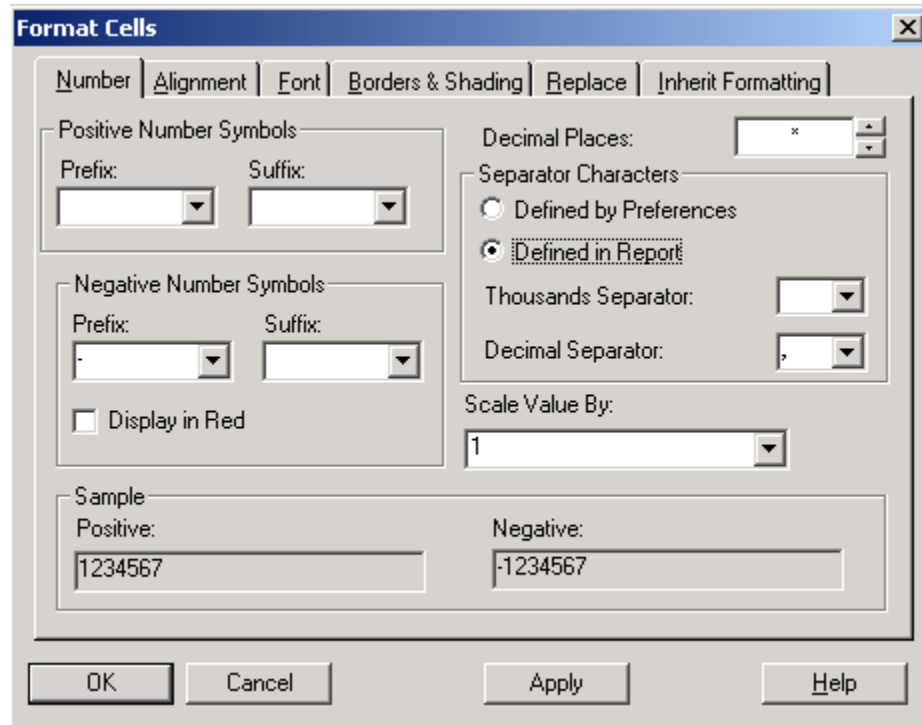
Note: You can view the results of your number format option selections in the Sample section at the bottom of the Number tab.

5 **Optional:** Specify a prefix or suffix for positive numbers by selecting a symbol from the **Prefix** or **Suffix** drop-down list, or type a user-defined symbol into the Prefix or Suffix fields. A prefix symbol is placed to the left of each positive value. A suffix symbol is placed to the right of each positive value.

Note: You can use a prefix or suffix to reverse the sign of an account member without inserting another row or column. When using conditional formatting, you specify an account row and set the condition. Then, in the Positive Number Symbols Prefix fields, enter the negative (-) symbol and click OK twice. The negative (-) symbol is displayed in front of the numbers for that row.

6 **Optional:** Specify a **prefix** or **suffix** for negative numbers by selecting a symbol from the **Prefix** or **Suffix** drop-down list box or type a user-defined symbol into the Prefix or Suffix fields. A prefix symbol is placed to the left of each negative value. A suffix symbol is placed to the right of each positive value.

7 **Optional:** To display negative values in red, select the **Display in Red** option. By default, this option is deselected.

8 Select the number of decimal places to apply to a number from the **Decimal Places** drop-down list box. The default ranges are from 0 to 9.

9 Select one of the following for Grouping and Decimal Symbols:

● **Defined by Preferences** if you want to use the symbols specified in the user's **Preferences** dialog box. This enables you to determine which symbols are used.

- **Defined in Report** if you want to specify thousands and decimal separators for the current report:

  - ○ Select a character for separating thousands in values from the **Thousands Separator** drop-down list. For example, you can select comma (,) to display a value (1,000) or you can select period (.) to display a value (1.000). The options are: comma (,), period (.), underscore (_), and Space. Alternatively, you can specify another symbol in the drop-down by highlighting the field and typing another symbol.

  - ○ Select a character to represent decimal points (for example, 1,000.06) from the **Decimal Separator** drop-down list box. The options are: comma (,), period (.), underscore (_), and Space. Alternatively, you can specify another symbol in the drop-down by highlighting the field and typing another symbol.

10 Select or enter a number from the **Scale Value By** drop-down list box by which to multiply values for scaling purposes. The default scaling option is 1, which does not scale values. If you select .001 instead, a value of 2,000 is displayed as 2. The options are: percentages, tens, hundreds, thousands, ten thousands, hundred thousands, millions, or billions. Alternatively, you can specify an amount in the drop-down box.

11 Click **Apply** to apply the number formatting you specified for the selected cells.

12 Click **OK** to save the number formatting and close the dialog box.

Aligning Text in Grids

You can specify options for aligning and indenting text in selected cells. You can select options for horizontal and vertical alignment. You can also specify the number of character spaces to indent text from the margins of selected cells.

➤ To align text in grids:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the cells you want to format.

3 Select **Format** then, **Cells** to access the Format Cells dialog box.

4 Select the **Alignment** tab to specify alignment for the selected cells.

Figure 20   Alignment Tab in the Format Cells Dialog Box
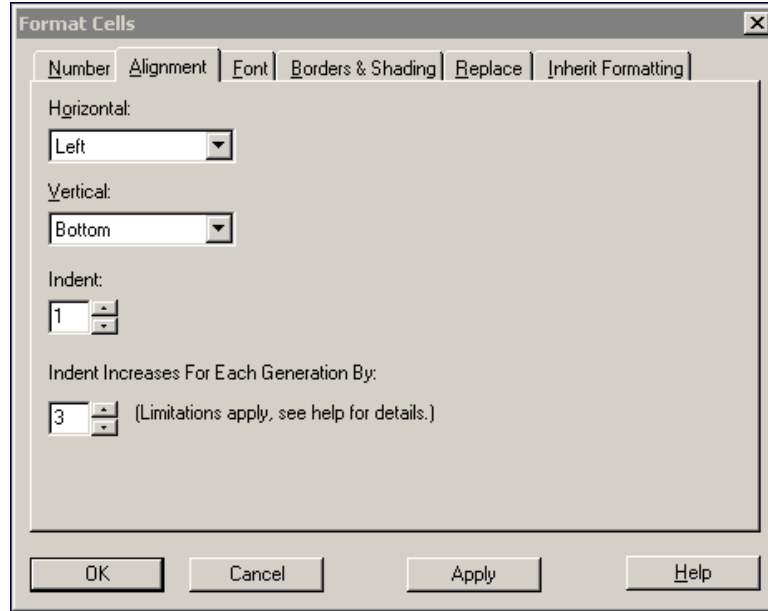
5   From the **Horizontal** drop-down list, select an alignment option. The options are Left, Center, and Right.

6   From the **Vertical** drop-down list, select an alignment option. The options are Top, Middle, and Bottom.

7   To indent the heading and the associated text, data, or formula cells in the row, from the **Indent** value box, select the number of spaces to indent the values from the left cell margin.

Note: This control is enabled only if you selected Left from the Horizontal drop-down list.

8   To indent the row headings of each generation of a selected member:

a.   Confirm that you selected a row with the desired heading cell from the **Indent Increases for Each Generation By** value box.

Note: You can specify a reverse indentation (from right to left) by using a negative number in the format property.

b.   Select the number of spaces to indent the text This number is added to the number in the **Indent** value box if it contains a value; for example: If **Indent** contains a 2 and **Indent Increases For Each Generation By** contains a 4, the output would resemble the following example:

Value	Result
East Hartford (2+4+4+4=14)	120
West Hartford (2+4+4+4=14)	130
Hartford (2+4+4=10)	250
Springdale (2+4+4+4=14)	140
Glenbrook (2+4+4+4=14)	112

Value	Result
Stamford (2+4+4=10)	252
CT (2+4=6)	502
NY (2+4=6)	406
East (2)	908

Note: For Planning Details, you must select **Show Supporting Detail** to view detail items. Also, for all database connections including Planning Details, you must select a member relationship that returns members on multiple levels; for example: Children of ...(Inclusive), Descendants of..., Descendants of ...(Inclusive), Parents of...(Inclusive), Ancestors of, Ancestors of...(Inclusive), and AllMembers. This control is enabled only if you selected Left from the Horizontal drop-down list.

9 Click **Apply** to apply the text alignment options to the cells.

10 Click **OK** to confirm the text alignment options you specified and close the dialog box.

Modifying Font Options

You can specify the font, font style, font size, font color, strikeout lines, and underlining for text in selected cells. A preview of the text displays in the dialog box as you modify the font options.

➤ To modify font options:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the cells you want to format.

3 Select **Format** then, **Cells** to access the Format Cells dialog box.

4 Select the **Font** tab and perform one or more of the following actions:

- Select a font from the **Font** list box.

- Select a font style from the **Font Style** list box. The options are: Regular, Bold, Italic, or Bold Italic.

- Select a font size from the **Size** list box.

- Select the **Strikeout** check box in the **Effects** section to apply strikeout lines. For example, if you apply the strikeout option to a cell that contains the word "SubTotal," the word is displayed as SubTotal.

- Select the **Underline** check box in the **Effects** section to underline text. For example, if you apply the underline option to a cell that contains the word "SubTotal," the word is displayed as SubTotal.

- Click the **Select** button in the **Effects** section to select a color to apply to the selected cell.

Figure 21   Font Tab in the Format Cells Dialog Box
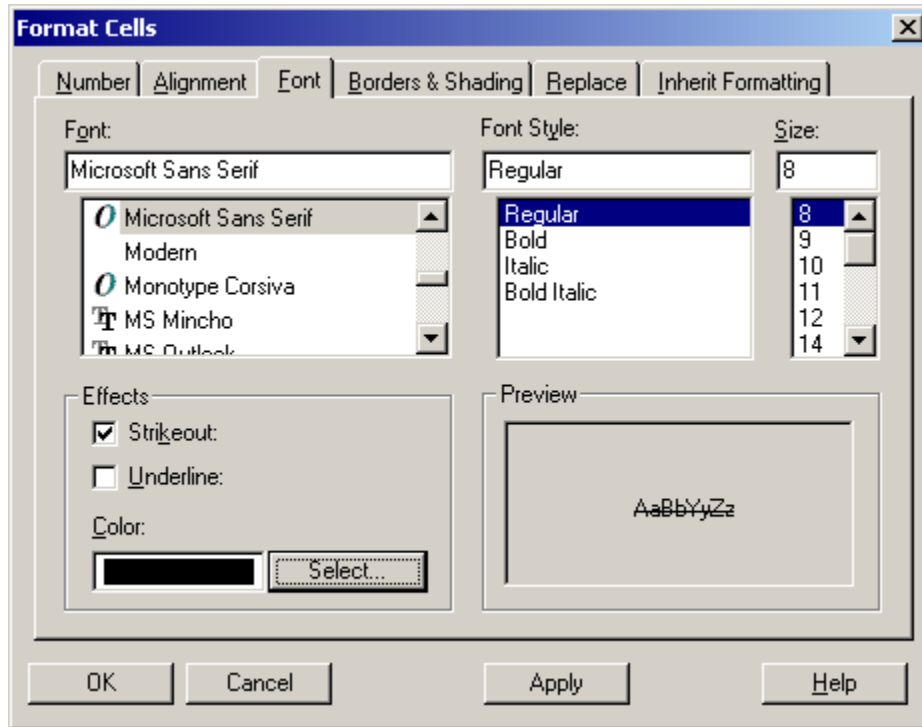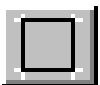
5   Click **Apply** to apply the font options you selected.

6   Click **OK** to confirm the font options you specified and close the dialog box.

Adding Borders or Shading

You can apply borders and shading to add emphasis to selected cells, rows, or columns in grids in your reports. You can specify a border style and then apply it to any sides of the selected area. You can also select a shading color to apply shading to your selection.

The following table describes the buttons for indicating border placement options for cells:

Table 29   Border Placement Options

Button	Task
	Click to remove the borders from each selected grid, cell, row, or column.
	Click to place a border around the outside edge of each selected grid, cell, row, or column.
	Click to place a border along the top of each selected grid, cell, row, or column.

Button	Task
	Click to place a border along the bottom of each selected grid, cell, row, or column.
	Click to place a border along the left side of each selected grid, cell, row, or column.
	Click to place a border along the right side of each selected grid, cell, row, or column.

➤ To add borders or shading to cells in a grid:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the items you want to format: a grid, or one or more cells, rows, or columns in a grid.

3 Select **Format** then, **Cells** to access the Format Cells dialog box.

4 Select the **Borders & Shading** tab.

Figure 22   Borders & Shading Tab in the Format Cells Dialog Box
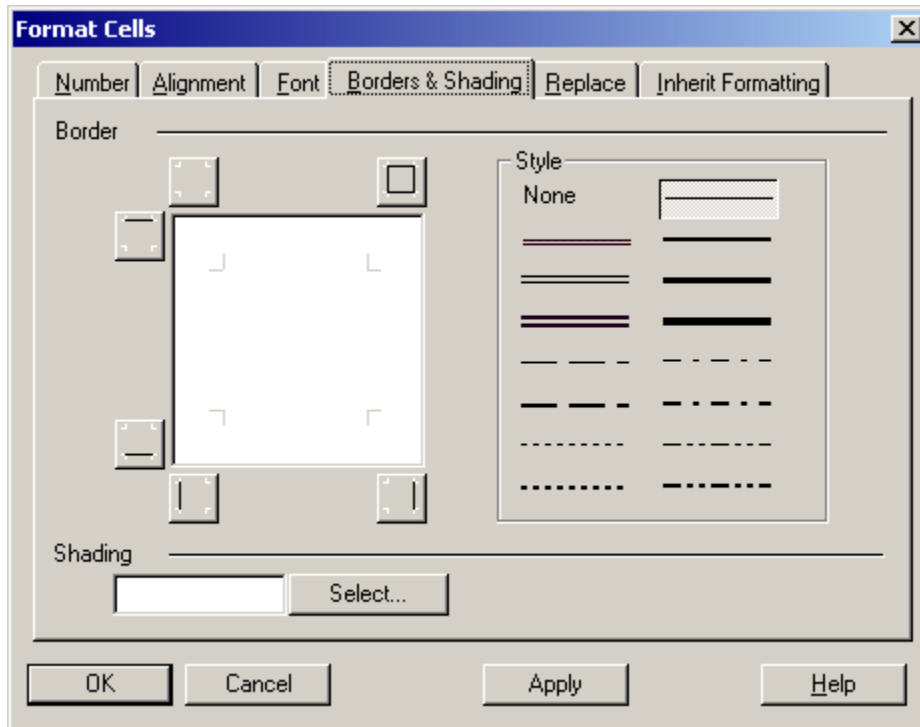
5 To specify border options, perform the following steps:

a. In the **Style** box, click the preferred line style for the borders.

b. Click one or more of the border placement buttons. For a description of the border placement buttons, see Table 29 on page 171.

6   To add shading, click the **Select** button and choose a color to apply shading.

7   Click **Apply** to apply the border and shading options you selected.

8   Click **OK** to confirm the border and shading options you selected and close dialog box.

Replacing Text

When working with cells in a grid, you can replace values in a cell with different text. This replaces all text in all selected cells with the replacement text you specify.

➤   To replace a value in a grid selection:

1   Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2   Select the cells you want to format.

3   Select **Format** then, **Cells** to access the Format Cells dialog box.

4   Select the **Replace** tab.

Figure 23   Replace Tab in the Format Cells Dialog Box
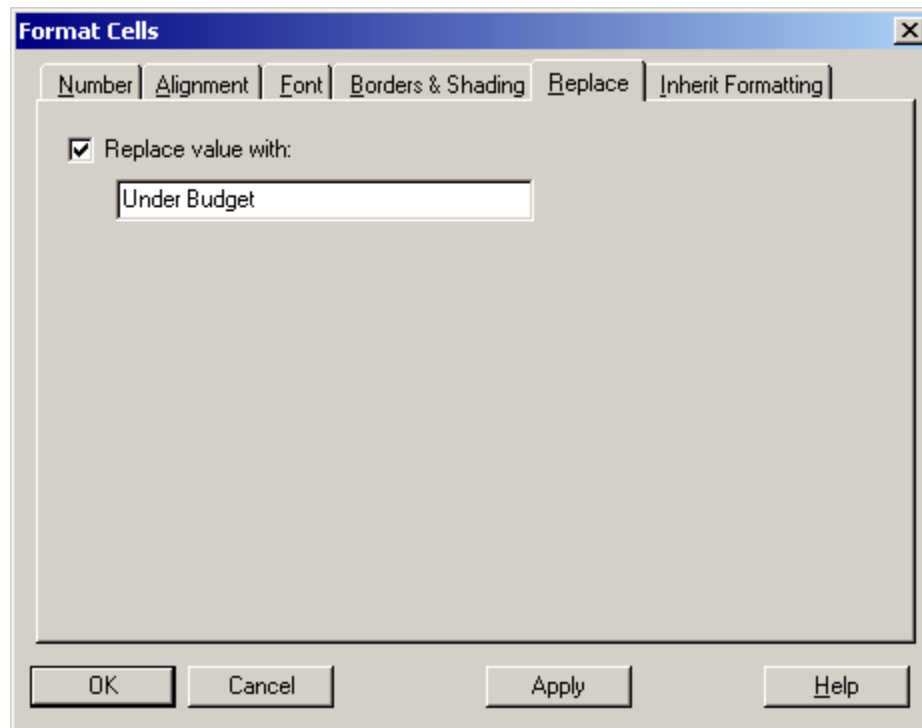
5   Select the **Replace value with** check box to enable the text box, then enter the replacement text in the text box.

Note: If the check box is selected and no text is entered in the text box, the selected cells are displayed as blank in the report.

6   Click **Apply** to apply the text replacement to your selected cells.

7 Click **OK** to confirm the replacement of the specified text string.

Inheriting Cell Formatting

When formatting cells in a grid, you can inherit formatting from a cell and apply it to another cell. The following formatting options can be inherited in a grid: number, alignment, font, borders and shading, and replace.

Note: If you are working with a row and column template in the current grid, you must establish your format inheritance options before saving a row and column template. For more information, see "Creating a Row and Column Template" on page 110.

➤ To inherit cell formatting:

1 Open a report that contains a grid, or create a new grid with formatted rows or columns.

2 Select the cells to which you want to apply inherited formatting.

3 Select **Format** then, **Cells.**

4 Click the **Inherit Formatting** tab.

Figure 24   Inherit Formatting Tab in the Format Cells Dialog Box
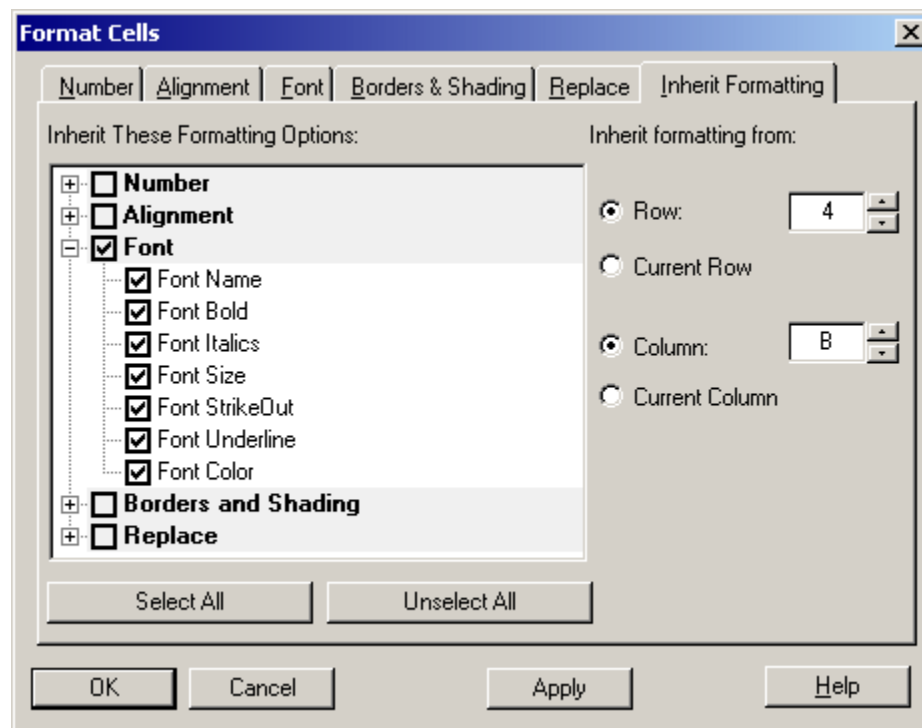
5 In the **Inherit These Formatting Options** area, expand the plus (+) symbols and click the box to select the formatting options to inherit, including number, alignment, font, borders and shading, and replace text, as illustrated in Figure 24.

Note: To select all formatting options, click **Select All**. To deselect all formatting options, click **Unselect All**.

Tip: To specify the row or column from which you want to inherit formatting, you must first specify the options you want to inherit (number, alignment, font, borders and shading, and replace).

6 In the **Inherit formatting from** area, select the row or column from which to inherit formatting, using the up and down arrows. Choose from the following inheritance options:

- Select the current row and another column

  Tip: Use the up and down arrow keys to make your selection.

- Select the current column and another row

- Select another row and another column

  Note: You can only inherit from a cell that does not have previously defined inheritance. For example, if you format column A and then inherit formatting into column B, you cannot then inherit formatting from column B into column C. You can, however, format column A, select columns B and C, and inherit formatting for column B and C from column A.

7 Click **Apply**.

8 Click **OK**.

Note: If you have inherited formatting and then modify the format of the cell to which you inherited formatting, the inheritance you established no longer applies. For example, if you inherit the font name property in cell A4 from cell B4 and you subsequently modify the font name in cell A4, the format inheritance no longer exists. This breaks the formatting link that was previously established between the two cells.

Copying Cell Formatting

You can copy cell formatting from a cell or range of cells and apply it to a destination cell or range of cells in a grid using Format Painter.

Note: Format Painter does not copy inherited formatting or conditional formatting.

➤ To copy cell formatting:

1 Create a grid in a report, or open an existing report containing a grid.

2 Format a cell or range of cells using grid formatting. For more information, see “Formatting Grids” on page 165.

3 Select the cell or range of cells containing the formatting to copy.

4   Click 🖌.

5   Select the destination cell or range of cells to apply the copied formatting. The formatting is changed when you release the mouse.

Hiding Rows, Columns, or Grids

You can hide rows, columns, or an entire grid so that their values are not displayed when you print or view a report. You might want to hide a grid, for example, if you include a chart based on the grid data and want to display only the chart on the report. When the grid is hidden, the grid's title bar changes from blue to gray.

The data and calculations in rows or columns are evaluated, regardless of the formatting that is applied to them.

➤ To hide a grid:

1   Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2   Select a grid.

3   In the Grid Properties property sheet, select **Suppression category**.

4   Select the **Hide Grid** check box.

➤ To hide a row or column:

1   Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2   Select a row or column.

3   Select the **Hide Always** check box.

   Note: You can specify whether the data values of hidden row or column are taken into account during suppression. For information on this option, see the topic below: Controlling the Evaluation of Suppression in Hidden Rows or Columns".

Controlling the Evaluation of Suppression in Hidden Rows or Columns

When evaluating suppression, you can include or ignore the values and calculations in a hidden row or column. This option is enabled only when the Hide Always check box is selected for the row or column.

➤ To specify if hidden rows or columns are taken into account during suppression:

1   Select a hidden row or column.

2   Perform an action:

- To include values and calculations, deselect the **Suppression Ignores Row** or **Column** check box. This is the default setting.

- To ignore values and calculations, select the **Suppression Ignores Row** or **Column** check box.

Note: Hidden cells are ignored when suppression is evaluated unless they are specifically referenced using conditional suppression. For more information, see "Conditional Suppression" on page 189.

Sorting Rows, Columns, and Pages

You can sort a range of consecutive rows or columns in a grid based on the values in a specified column or row. You can also sort columns, rows, and pages based on their headings. If you select a range of columns, the system sorts the columns based on the values in a specified row. If you select a range of rows, the system sorts the rows based on the values in a specified column. If the column or row by which you sort contains multiple members, the sort is based only on the values of the first member.

You can sort columns or rows in ascending or descending order. When you sort in ascending order the lowest number, the beginning of the alphabet, or the earliest date appears first in the sorted list. When you sort in descending order, the highest number, the end of the alphabet, or the latest date appears first in the sorted list.

You can sort only multiple ranges of columns or rows. Suppressed rows or columns are not sorted.

➤ To sort a range of rows and columns:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Set up sorting for the grid:

   a. Select a grid to display **Grid Properties** sheet.

   b. Select the **General** category.

   c. Select **Sort**, and click **Setup** to display the **Sort Dialog** box.

Figure 25   Sort Dialog Box
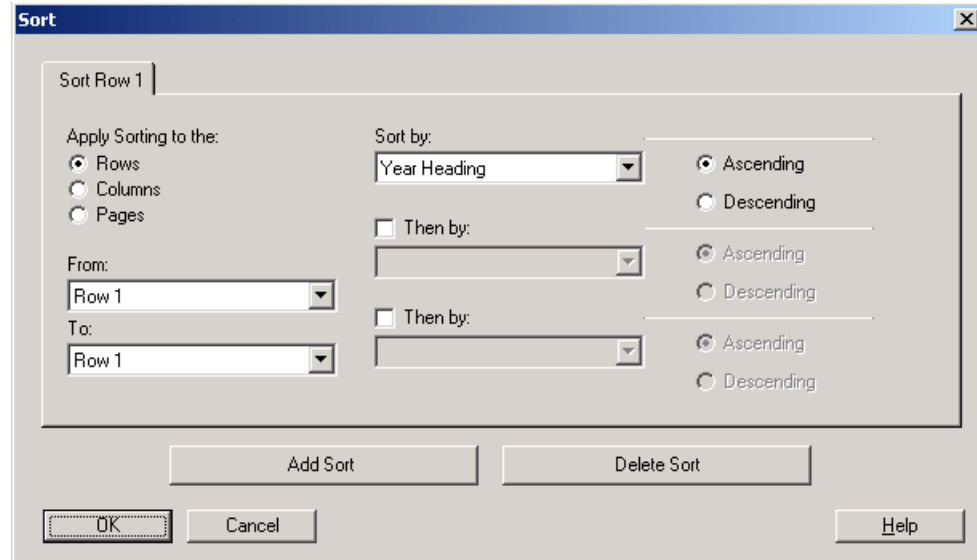
3   From **Apply Sorting to the**, select Rows, Columns, or Pages.

Note: For the Pages option, you can only select headings from the Sort by: drop-down menu. All other options are disabled.

4   For Rows or Columns, use **From** and **To** to select the range of columns or rows to sort.

Note: When auto calculations is enabled, the outermost layers contains the grand total of all rows in the calculation. Sorting on the outermost layer is ignored. Also, when you select sort with auto calculation set on multiple layers, you must sort on all heading layers which have auto calculations.

5   In the Sort by area:

a.   From the first drop-down list, select the headings or row or column on which to base the sort, then select **Ascending** or **Descending** sort order.

b.   **Optional:** In the **Sort by** area, set up one or two additional sorts:

i.   For each additional sort, select the **Then by** check box.

ii.   From the second or third drop-down list or both, select the headings or row or column on which to base the sort.

iii.   For each additional sort, select the **Ascending** or **Descending** sort order.

6   Optional: To set up additional sorts:

a.   Click **Add Sort**. A tab is added to the **Sort** dialog box.

b.   In the tab, repeat steps 3 through 5 for the new sort.

7   Optional: To delete a sort:

a.   Click **Delete Sort**.

b.   From the drop-down list, select the sort to delete.

8 Click **OK.**

About Conditional Formatting

You can use conditional formatting to apply specified formatting to cells in a grid. For example, suppose you define the criterion "current cell value = 0" and then define a format to change the color of the cell font to blue if the criterion is met. If the data returned for this cell has a value of 0, then the font color is changed to blue.

Note: Conditional formatting takes precedence over all other formatting and replaces formatting previously set at the grid, row or column, or cell level. For example, if you use conditional formatting to change cell colors, yet want to retain a specific number of decimal places applied with regular formatting, you must specify both formats using conditional formatting.

Note: When you select multiple cells, the default formatting is derived from the upper left cell of the selected group of cells.

After you define the conditions and add the formats, you return to the report.

The current grid is displayed. Each cell with conditional formatting contains a colored dash, shown in cell D2 below, as an indication that a conditional format is applied to this cell. This is illustrated in below.

You can apply conditional formatting to enhance your reports. For example, you can underline any values greater than 1000. You can also set up more complex conditional formatting. For example, if the account type equals expense and the current cell value is greater than 1000, apply bold to the cell. In addition, if the value of a Cola cell is less than 1000, then set the background color of the cell to lime green. You can accomplish this type of formatting by specifying additional conditions and formats, as in the following example:

From the Conditional Format dialog box, select Account Type from the Condition 1: If drop-down list box.
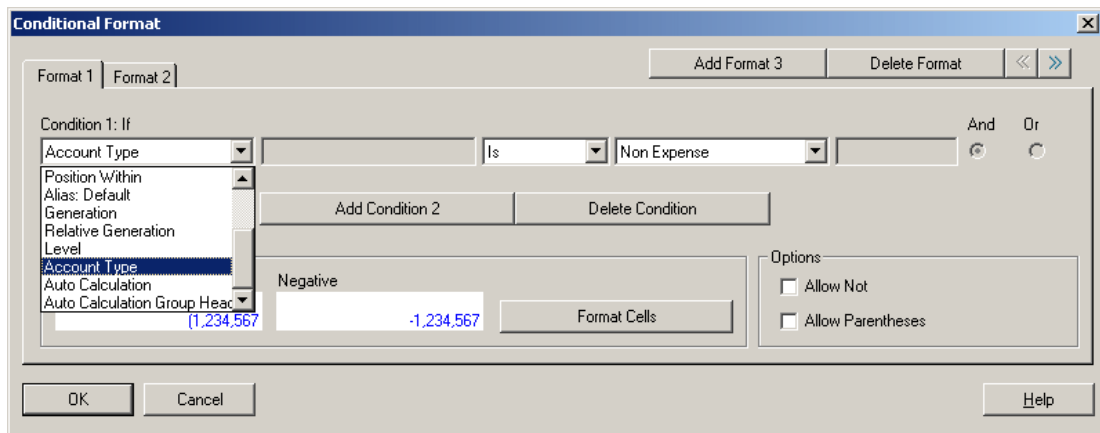
Then, select Expense from the Comparison Options drop-down list box. Click Format Cells to apply bold formatting to the selected cell, leaving all other font properties unchanged.
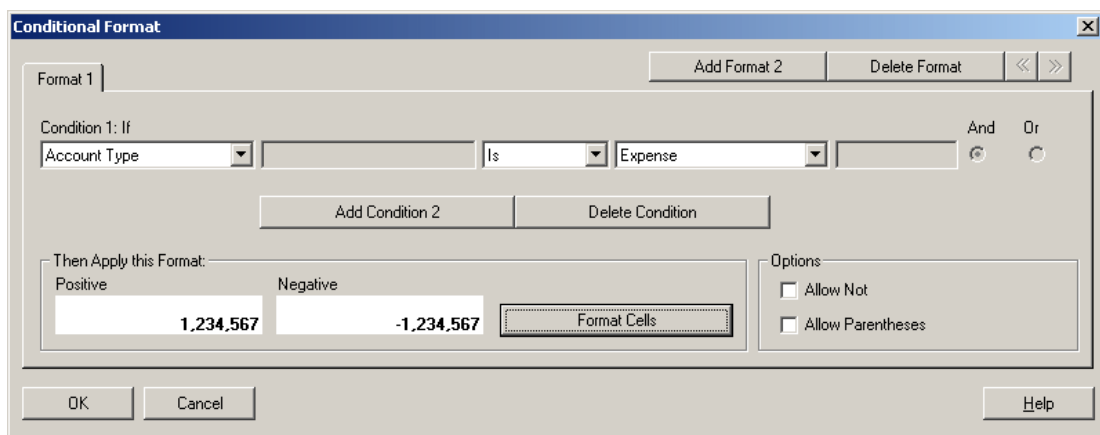
Next, add a second condition to the selected cell. Click the Add Condition 2 button, setting the Condition 2: If statement to Current Cell Value. Set the operator value to > (greater than), leaving the comparison value set to Number. Set the numeric value to 1000, as illustrated below:
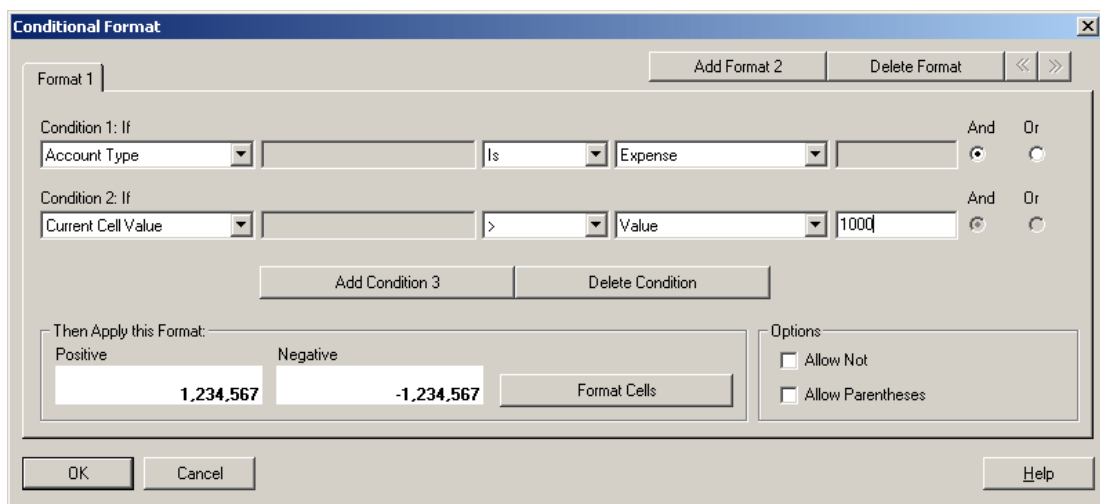
Note: Click Delete Condition to delete a condition.

Next, add another Format by clicking the Add Format 2 button. Establish three conditions as follows to set the background color to lime green when a Cola cell has a value < 1000:
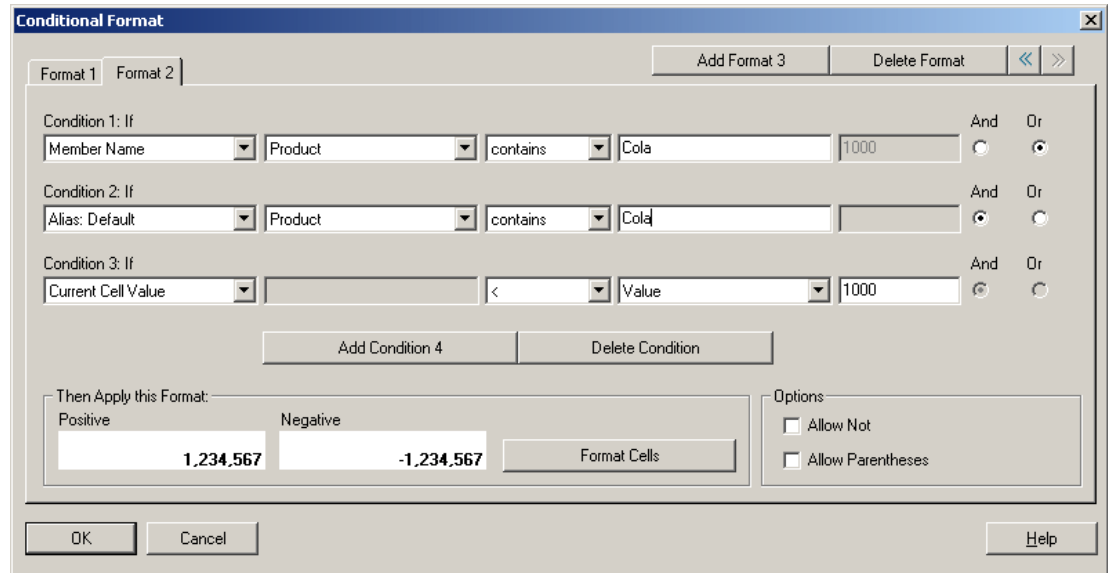
Note: Use And and Or to combine or differentiate the conditions.

After you establish the conditions, you can select the check box for Allow Parentheses in the Options box.

The following scenario performs the following operation:

```
Condition 1 and Condition 3
or
Condition 2 and Condition 3
```

For this example, if a cell has the label Cola associated with it using the Alias:Default and the cell value < 1000, the background is set to lime green. If a Member Name contains Cola and the cell value is < 1000, the background is set to lime green.

Note: The manner in which you use conditional formatting can impact performance depending on the size of the report. Performance is also contingent on the criteria used and the frequency of use (every cell). Each or all of these factors combined can affect performance. Data value comparisons are the fastest. Criteria such as data value, Member Name, and Member Alias/Description are faster because they are part of the metadata or data query. Avoid criteria such as Generation, Level, Account Type, and Attribute Value whenever possible, as performance is slower because those criteria are not part of the regular metadata or data query.

Applying Conditional Formatting on Grids

You can apply conditional formatting when working with grids in the Report Designer. First, you establish a condition for the selected cells. Then you specify formatting for values that meet that condition.

➤ To apply conditional formatting:

1 Create a grid in a report, or open an existing report containing a grid.

2 Select the cells to which you want to apply conditional formatting.

3 Select **Format** then, **Conditional Format** to access the Conditional Format dialog box.

4 From the **Select Property** drop-down list box, select a property.

Note: Your property selection determines the options that are available in the drop-down list boxes.

The following table lists each conditional formatting property with the applicable data sources.

Property	Data Source Usage
Cell Value	Oracle Essbase Planning Details Financial Management SAP BW Microsoft Analysis Services
Row Value	Oracle Essbase Planning Details Financial Management SAP BW Microsoft Analysis Services
Column Value	Oracle Essbase Planning Details

Property	Data Source Usage
	Financial Management
	SAP BW
	Microsoft Analysis Services
Current Cell Value	Oracle Essbase
	Planning Details
	Financial Management
	SAP BW
	Microsoft Analysis Services
Member Name	Oracle Essbase
	Planning Details
	Financial Management
	SAP BW
	Microsoft Analysis Services
Position Within	Oracle Essbase
	Financial Management
	Planning
	Microsoft Analysis Services
	SAP BW
	The Position Within property allows designers to format the first or last row or column of a data segment with multiple members or a member function. For example, to set the condition of the top row in a multiple member row or column, the conditions would resemble the following example:
	`Condition 1: If`
	Position Within Row Is Top Row, then
	Format Cells = $.
Description	Financial Management
Alias	Oracle Essbase
	Planning Details
	SAP BW
	Microsoft Analysis Services
Generation	Oracle Essbase
	Planning Details
	SAP BW
	Microsoft Analysis Services
Relative Generation	Oracle Essbase
	Planning Details

Property	Data Source Usage
Level	Oracle Essbase
	Planning Details
Account Type	Oracle Essbase
	Planning Details
	Financial Management
Auto Calculation	Oracle Essbase
	Planning Details
	Financial Management
	SAP BW
	Microsoft Analysis Services
Auto Calculation Group Heading	Oracle Essbase
	Planning Details
	Financial Management
Attribute Value	Oracle Essbase
Line Item Detail	Financial Management
Supporting Detail	Planning Details
Expand Level — Specify a condition which is dependent on the expand level of a row or column dimension (how many times a dimension has been expanded).	Oracle Essbase
	Planning Details
	Financial Management
	SAP BW
	Microsoft Analysis Services

5 From the **Reference Value** drop-down list box, select a value corresponding to the property value you selected from the Select Property drop-down list box.

6 Select an operator:

- = (is equal to)
- < > (less than or greater than)
- > (greater than)
- < (less than)
- > = (greater than or equal to)
- < = (less than or equal to)
- equals (is equal to)
- not equals (is not equal to)
- starts with
- ends with

- contains

- Is

> **Note:** The full list of operators may not be displayed at the same time, as they rely on previous formatting selections.

7   Select one of the following comparison options:

- **Number**—Enables the assignment of a certain value to a cell.

- **Cell Value**—Returns the cell location; for example, A, 3.

- **Row Value**—Returns the number of the row.

- **Column Value**—Returns the letter of the column.

- **Zero**—Assigns zero value for condition.

- **No Data**—Indicates no data value for selection.

- **Invalid**—For a Financial Management data source only, indicates an inactive or invalid value.

- **Error**—Assigns the condition as an error.

- **String**—Enables the definition of a string for the condition.

- **0, 1, 2**—Indicates the number of levels or generations in the selected dimension.

> **Note:** The options in the drop-down list depend on your property selection.

8   To add another condition, click the **Add Format 2** button. Repeat step 4 through step 7 to continue adding conditions.

> **Note:** The number on this button changes to as many as 7 as you add conditions.

9   Select **And** to combine this condition with the next condition, or select **Or** to distinguish this condition from the next condition.

10 Click **Format Cells** to assign a format to the condition. For more information, see "Formatting Grids" on page 165.

11 Use the **Allow Not** and **Allow Parentheses** check boxes, located in the **Options** section of the Conditional Format dialog box, to establish logic for conditions:

- **Allow Not** enables you to negate a condition.

- **Allow Parentheses** enables you to define precedence, or order of consideration for conditions, and specify the set of conditions as intended.

12 When you finish adding conditions for Format 1, perform an action:

- To return to the grid in your report, click **OK**.

- To add another format to your selection, click **Add Format 2**. For more information, see "Adding Conditional Formats" on page 186.

Deleting Conditions

You can delete a condition if it is no longer applicable to the grid, cell, row, or column. This functionality enables you to delete a single condition rather than an entire format, which can hold as many as seven conditions. For information on deleting formats, see "Deleting Conditional Formats" on page 187.

➤ To delete conditions:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid with conditional formatting applied.

2 Select a grid or one or more cells, rows, or columns in a grid to which conditional formatting is applied.

3 Select **Format** then, **Conditional Format**.

4 In the **Conditional Format** dialog box, click the **Delete Format** button. Use the drop-down list to select the condition to delete.

5 Click **OK**.

Adding Conditional Formats

You can specify as many as seven formats when applying conditional formatting. For each format, you can create as many as seven conditions.

Additional formats are added to enable the application of multiple formats when different conditions are met. After a condition, or conditions, is formatted, you can add another format that is tied to the cell.

For example, you can create one format that contains row and column numerical conditions to be applied to the selected cell. Then, you can create another format that specifies text color, shading, or alignment for the selected cell.

➤ To add a format:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the cells you want to format.

3 Select **Format** then, **Conditional Format** to access the **Conditional Format** dialog box.

4 Add a condition to the cell, as described in "Applying Conditional Formatting on Grids" on page 182.

5 Click the **Add Format #**, where # is the number of the next format to be added.

6 Specify conditions to be included in the format.

7 To add more conditions and formats, repeat step 4 through step 6 as needed.

8 When completed, click **OK**.

Changing the Order of Conditional Formats

After you add multiple formats, you can change the order in which the conditions are evaluated and formats are applied to the selected cells. For example, suppose you specified a blue format for cells with a value of zero. In the second format, you specified a column value equal to the cell value and a row value equal to a specific number. Then, you specified a third format for the selected cell.

Using the arrows in the upper right corner of Conditional Format dialog box, you can change the order in which the formats are applied to a selected cell. The order of the formats is significant, because formats are absolute. The conditions created in the first format take precedence over the other formats and conditions.

➤ To change the order of the conditional formats:

1 Create a grid in a report in the Report Designer or open an existing report containing a grid.

2 Select the cells whose format order you want to modify.

3 Select **Format** then, **Conditional Format.**

4 Add three formats, as described in "Adding Conditional Formats" on page 186.

5 Select the format tab whose order you want to change.

6 Do either of the following:

   ● To move a formatted tab to the left, click the **Move Left** button, ⟪.

   ● To move a formatted tab to the right, click the **Move Format Tab Right** button, ⟫.

7 Click **OK** to return to the grid.

Deleting Conditional Formats

You can delete a format when the conditions it contains are no longer applicable. For example, if a format contains six conditions and you delete the format, you delete all six conditions contained in that one format.

➤ To delete a format:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select a cell containing a numerical value with conditional formatting.

   Note: Cells with conditional formatting are indicated with a colored bar.

3 Click **Format** then, **Conditional Format.**

4 Click **Delete Format.** From the drop-down list, select the format number you want to delete.

5 Click **OK** to return to the grid.

Changing Row Height and Column Width

You can change row heights and column widths in grids. You can apply these changes to the entire grid or to specific rows or columns.

➤ To change row height and column width:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the rows or columns to format.

3 Perform an action:

- To specify the row height, select a row and enter a value in the **Row Height** field on the **Row Properties** property sheet.

  Tip: You can also use the arrows to increase or decrease the value.

- To specify the column width, select a column and enter a value in the **Column Width** field on the **Column Properties** property sheet.

  Tip: You can also drag the handle of a row or column in the grid to the desired size. If you make a row or column too small to see, when the pointer becomes a split line, drag the row or column handle until the row or column is visible.

Merging Cells into One Cell

You can combine two or more cells into one cell in a grid. For example, you can combine several cells to create one data cell, text cell, or formula cell. When you merge cells, the value and format of the upper-left cell is placed into the resulting merged cell. When the merged cell is separated into individual cells, all resulting cells inherit the formatting of the previously merged cell.

Note: Text automatically wraps within a grid's cell. When print previewing PDF reports in Workspace, text cells with long text are automatically merged into the next cell to the right, if that cell is empty. When previewing HTML reports, text cells are not automatically merged. You may want to use the Merge feature, along with increasing the column width, to expand the area for text to display (the rows height automatically adjusts to display all text).

➤ To merge cells:

1 Open a report that contains a grid.

2 Select the cells to merge.

3 Right-click the selected cells, then select **Merge**.

  Tip: To change the formatting of the merged cell, such as changing the alignment and font selection, select **Format** then, **Cells**.

➤ To separate a merged cell into individual cells:

1 Open a report that contains a grid.

2 Select the merged cell.

3 Right-click the selected cell, then select **Merge**. The resulting cells inherit the formatting of the previously merged cell.

Conditional Suppression

You can suppress the display of rows, columns, or grids using one or both of the following methods:

- Use the Basic option to suppress rows, columns, or grids based upon If Zero, If Missing, and If Error. For procedures, see "Using the Basic Option in Conditional Suppression" on page 191.

- Use the Advanced option to suppress rows, columns, or grids based on a variety of attributes. For example, you can specify that if a row contains cells with values below 100, the entire row is suppressed. For more information on using this type of conditional suppression, see "Using the Advanced Option in Conditional Suppression" on page 192.

Behavior of Conditional Suppression

Conditional suppression behaves in the following manner:

- If an entire row or column meets the criteria specified for conditional suppression, the entire row or column is hidden; if only some of the cells in a row or column meet the criteria specified for conditional suppression, the row or column is not hidden.

- Suppressed data is not included in calculations. For example, if you suppress rows 23 and 24 and then calculate a sum for rows 10 through 30, the sum does not include the values in rows 23 and 24.

    Note: When evaluating suppression, you can include or ignore the values and calculations in hidden rows and columns. This option is enabled only when the Hide Always check box is selected for the row or column. For instructions on this option, see "Controlling the Evaluation of Suppression in Hidden Rows or Columns" on page 176. Regardless of the setting you select, you can evaluate suppression based on hidden cells when you specifically reference the cells by using the Advanced Options method for conditional suppression.

- Hidden cells are ignored when evaluating suppression of a row or column unless they are specifically referenced. The output of the report is based on the condition used. The following example is a report with hidden columns.

		A	(Hidden B Column)	C
		East	West	South
1	Cola	Missing	Missing	Missing
2	Root Beer	Missing	61	Missing
3	Diet	61	Missing	Missing

The above report design is used to describe three conditional suppression scenarios.

Note: In the following 3 examples, column B is hidden and rows 1, 2, and 3 are selected for conditional suppression.

The first example describes the results when specifying suppression based on missing data. Note that because the condition does not reference the hidden column or a specific cell in the hidden column, the hidden column is ignored:

```
Suppress Row If: Data Values in Current Row = No Data
```

	East	South
Diet	61	Missing

The following example describes the results when specifying suppression based on the data cells in the hidden column B. Note that since the condition specifies the hidden column B, Root Beer is not suppressed because cell B2 contains data:

```
Suppress Row If: Data Values in Column B = No Data
```

	East	South
Root Beer	Missing	Missing
Diet	61	Missing

The following example describes the results when specifying suppression based on a specific cell in hidden column B. Note that since the specified hidden cell, B2, contains data, all rows are displayed:

```
Suppress Row If: Data/Formula Value in Cell B,2 = No Data
```

	East	South
Cola	Missing	Missing
Root Beer	Missing	Missing
Diet	61	Missing

- When you use conditional suppression based on attributes, you can suppress formula rows or columns based on the suppression status of other data rows or columns. You can suppress text rows or columns based on the suppression status of other rows and columns.

Note: You cannot suppress data rows or columns based on the values of formula rows or columns.

The following table describes whether suppression is valid when referencing another suppressed data, formula, or text row or column.

If the Row / Column Type you are suppressing =	And if suppression is based on Row / Column of Type =		
Data	**Formula**	**Text**	
Data	Available	Not Available	Not Available
Formula	Available	Not Available	Not Available
Text	Available	Available	Not Available

Using the Basic Option in Conditional Suppression

Use basic conditional suppression to suppress data in rows or columns based on If Zero, If Missing, Is Error. Basic conditional suppression can be combined with advanced suppression options. See "Using the Advanced Option in Conditional Suppression" on page 192.

➤ To suppress data:

1 Create a grid in a report in the Report Designer, or open an existing report containing a grid.

2 Select the grid, rows, or columns to which you want to apply suppression.

3 In the Row or Column Properties sheet, click the **Basic Options** button.

   Note: If you selected a grid, first select the Suppression category in the Grid Properties property sheet.

4 Select one or more of the following options:

   ● Select **If Zero, Suppress** to hide the rows or columns where all cell values equal zero.

   ● Select **If Missing, Suppress** to hide the rows or columns where all cells are empty.

   ● Select **If Error, Suppress** to hide the rows or columns where data cannot be retrieved or calculated because of errors.

5 **Optional:** To replace #ZERO, #MISSING, or #ERROR values in a row or column that cannot be hidden, take one or more of the following actions:

   Note: You must have a grid selected and select the Suppression category in the Grid Properties property sheet.

   ● To replace zero (#ZERO) values in cells, type a value in the **Zero Values** text box.

   ● To replace no data (#MISSING) in cells, type a value in the **No Data** text box.

   ● To replace erroneous data (#ERROR) in cells, type a value in the **Error** text box.

6 To select all options and specify customized suppression criteria, select **Advanced Options**.

Using the Advanced Option in Conditional Suppression

The Advanced Option is used to suppress rows or columns in a grid based on specified attributes or values. Conditional suppression can be simple or complex, and can contain a maximum of seven conditions. Advanced conditional suppression can be combined with basic suppression options. See "Using the Basic Option in Conditional Suppression" on page 191.

When you define conditions, you can include the Not operator to suppress rows or columns that do not meet the condition (that result in false), and parenthesis to enclose and separate conditions from other conditions. Conditional suppression may be based on data or formula values.

➤ To apply conditional suppression:

1 Create a report, or open an existing report containing a grid.

2 Select the rows, columns, or grid to which you want to apply suppression.

3 In the property sheet, click **Advanced Options**, then click the **Setup** button to display the Conditional Suppression dialog box.

> **Note:** If you selected a grid, first select the **Suppression** category in the Grid Properties property sheet.

Conditional Suppression displays a **Basic Options** label above the suppression options. Basic options use OR operators:

- Basic Options:None—Basic options not selected with Advanced options.
- If Zero, Suppress OR ...—If Zero selected with Advanced options.
- If Zero OR Missing, Suppress OR ...—IfZero and If Missing selected with Advanced options.
- If Zero OR Error, Suppress OR ...—If Zero and If Error selected with Advanced options.
- If Zero OR Missing OR Error, Suppress OR ...—If Zero, If Missing and If Error selected with Advanced options.
- If Missing, Suppress OR ...If Missing selected with Advanced options.
- If Missing OR Error, Suppress OR ...If Missing and If Error selected with Advanced options.
- If Error, Suppress OR ...If Error selected with Advanced options.
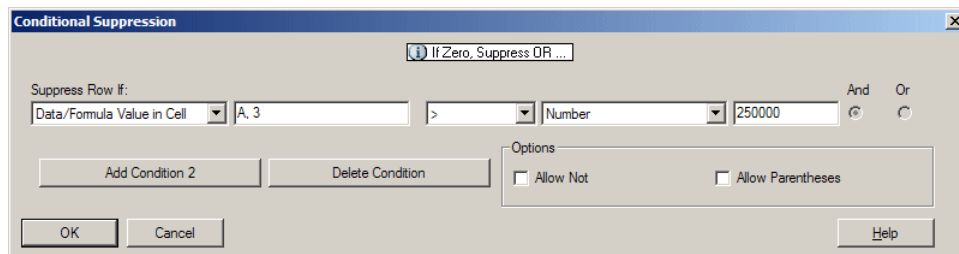
4 From **Suppress Row** or **Column If**, select a property.

The property selected determines which options are available in the drop-down lists for your expression. The following table lists each property with the default reference, operator, and comparison values. The default values are displayed automatically and can be changed.

Property	Data Source Usage
Data/Formula Value in Cell	Oracle Essbase Financial Management Planning Details SAP BW
Data Values in Row	Oracle Essbase Financial Management Planning Details SAP BW
Data Values in Column	Oracle Essbase Financial Management Planning Details SAP BW
Data Values in Current Row	Oracle Essbase Financial Management Planning Details SAP BW
Member Name	Oracle Essbase Financial Management Planning Details SAP BW
Description	Financial Management
Alias - Default	Oracle Essbase Planning Details SAP BW
Generation	Oracle Essbase Planning Details SAP BW
Level	Oracle Essbase Planning Details
Account Type	Oracle Essbase Financial Management

Property	Data Source Usage
	Planning Details
Auto Calculation	Oracle Essbase
	Financial Management
	Planning Details
	SAP BW
Line Item Detail	Financial Management
Attribute Value	Oracle Essbase
Supporting Detail	Planning Details

5 From the **Reference Value** drop-down list box, select a value corresponding to the property value you selected from the Suppress Row or Column If drop-down list box.

6 Select one of the following operators, if applicable:

Note: The available operators depend on your property selection.

- < > (less than or greater than)
- > (greater than)
- > = (greater than or equal to)
- < (less than)
- < = (less than or equal to)
- not equals (is not equal to)
- starts with
- ends with
- contains
- Is

7 Select one of the following comparison options, if applicable:

Note: The available comparison options depend on your property selection.

- **Number**—Enables the assignment of a certain value to a cell.
- **Cell Value**—Returns the cell location; for example: A, 3.
- **Row Value**—Returns the number of the row.
- **Column Value**—Returns the letter of the column.
- **Zero**—Assigns zero value for condition.
- **No Data**—Indicates no data value for selection.

- **Invalid**—For a Financial Management data source only, indicates an inactive or invalid value.

- **Error**—Assigns the condition as an error.

- **string**—Enables the definition of a string for the condition.

- **1, 2, 3,...**—Indicates the number of levels or generations in the selected dimension.

- **Non Expense**—Assigns the condition as a nonexpense.

- **Expense**—Assigns the condition as an expense.

- **True**—Assigns a True value to the condition.

8 To add another condition, click the **Add Condition 2** button.

> **Note:** The number on this button is increased to as many as 7 as you add conditions.

9 To combine the current condition with the following condition, select one of the following operators:

- Select **And** if both combined conditions must be met.

- Select **Or** if only one of the combined conditions must be met.

10 **Optional:** In the **Options** area, add one of the following logic options to your condition:

- Select **Allow Not** to allow suppression only if the condition is not met.

- Select **Allow Parentheses** to define precedence, or order of consideration for the conditions, then specify the set of conditions as intended.

11 To add another condition, click the **Add Condition 3** button.

12 Click **OK** to return to the grid in your report.

Deleting Conditional Suppression

You can delete conditional suppression if it is no longer applicable. This functionality enables you to delete one condition at a time, which can hold as many as seven conditions.

➤ To delete conditional suppression:

1 Open a report that contains a grid with conditional suppression.

2 Select the rows, columns, or grid to which conditional suppression is applied. The **Advanced Options** button in the property sheet is selected.

3 In the property sheet, click **Setup** to display the Conditional Suppression dialog box.

> **Note:** If you selected a grid, first select the Suppression category in the Grid Properties property sheet.

4 In the **Conditional Suppression** dialog box, click **Delete Condition.** In the drop-down list, click the condition to delete. Repeat to delete additional conditions.

5 Click **OK.**

Formatting Images

You can format the display of images in your report. For example, once you place an image, you can stretch the image, insert a page break before the image, and specify horizontal and vertical positions for the image.

➤ To format images in a report:

1 Open a report and select an image to format.

2 To expand or shrink the image to fill the size of the image boundary on the Report Designer workspace, select **Stretch** on the Image Properties property sheet.

Tip: To resize the image manually, click and drag a handle. If the stretch option is not selected, only the box around the image is resized.

3 **Optional:** To set the horizontal positioning of a printed image, do one of the following tasks in the Horizontal drop-down list box:

   ● To position the printed image relative to an object to its left, select **Relative**.

   ● To position the printed image to the left side of the report, select **Left**.

   ● To position the printed image in the middle of the report, select **Center**.

   ● To position the printed image to the right of the report, select **Right**.

   ● To position the printed image at its current location regardless of whether report objects to its left change in size, select **None**.

4 **Optional:** To set the vertical positioning of a printed image, do one of the following tasks in the Vertical drop-down list box:

   ● To position the printed image relative to an object above it, select **Relative**.

   ● To position the printed image on the top of the report, select **Top**.

   ● To position the printed image to the middle of the report, select **Middle**.

   ● To position the printed image to the bottom of the report, select **Bottom**.

   ● To position the printed image at its current location regardless of whether report objects above it change in size, select **None**.

5 To start the image on a new page when it is printed, select the **Page Break Before** check box.

6 To move the image, click the image and, with all borders activated, drag it to another location.

Note: Do not click and drag the borders of the image, because this stretches the image vertically or horizontally. Be sure to click the entire image.

Changing the Page Setup

You can alter page settings that control how your reports are printed or viewed. You can change the paper size, page orientation, heading display settings, default width and length for the report,

and create a custom size for the work area. You can also specify whether cell documents print with consecutive page numbers or print the page settings on each document.

➤ To change the page setup:

1 Open a report and select **File then, Page Setup**.

2 Select the **Page** tab.
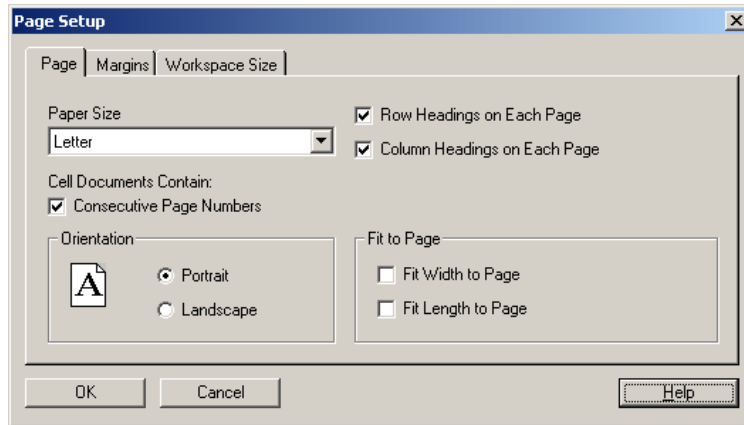
3 Select **Letter, Legal, Ledger, A4 or A3** to specify the paper size.

4 When you print a report with Cell Document attachments enabled, the file attachment page numbers can be renumbered to reflect the page numbers of the report. For example, a nine page report with a five page Word document attached can renumber the Word document output to reflect the page number 10 to 15. To print consecutive page numbers on cell documents, select **Consecutive Page Numbers**. To print the page numbers as specified on each cell document, clear **Consecutive Page Numbers**. To learn more about cell documents, see "Attaching Cell Documents in a Report" on page 148.

5 Select **Portrait** or **Landscape** to set the orientation.

6 Set the display of row and column headings on your report:

   a. To display the row heading on every page of the report, select the **Row Headings on Each Page** check box. Clear this check box to display the row heading only once, on the first page of the report.

   b. To display the column heading on every page of the report, select the **Column Headings on Each Page check box**. Clear this setting to display the column heading only once, on the first page of the report.

   Note: The default selections include row headings and column headings on each page.

7 **Optional:** Enable the following options to fit the length or width of your report on one page.

   ● To scale the width of the report so that it fits on one page, select the **Fit Width to Page** check box. Deselect this setting to retain the original dimensions specified in the Design mode.

   ● To scale the length of the report so that it fits on one page, select the **Fit Length to Page** check box. Deselect this setting to retain the original dimensions specified in the Design mode.

Note: If you select Fit Width to Page, you cannot insert a column page break. If you select Fit Length to Page, you cannot insert a row page break.

8   Select the **Margins** tab and enter values in the margin text boxes. You can specify a value for the top, bottom, left, and right margins. To adjust the margins, use one of the following methods:

- Use the up and down scroll arrows to adjust the margins of your report by increments of 100th of an inch.

- Type the margin settings for your report, in inches.

   Note: The Margins tab shows a preview of your report using the margins you specify.
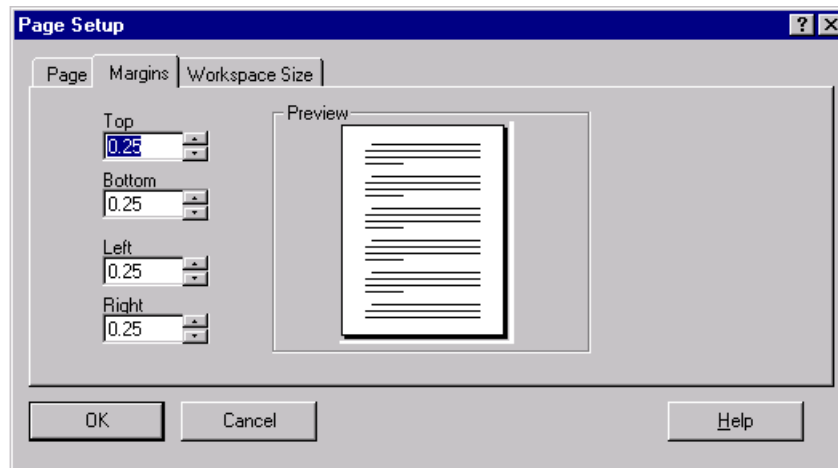
9   **Optional**: Select the **Workspace Size** tab and then select the **Use a Custom Workspace Size** check box to specify dimensions for the workspace that are different than the paper size specified on the Page tab. To specify a workspace size, use one of the following methods:

- Use the up and down scroll arrows to adjust the report workspace size by increments of 100th of an inch.

- Type a width and height for your workspace, in inches.

   Note: Neither the height nor the width can exceed 20 inches.

Page Setup

Page | Margins | Workspace Size

☑ Use a Custom Workspace Size

Width
8.5

Height
11

OK   Cancel   Help
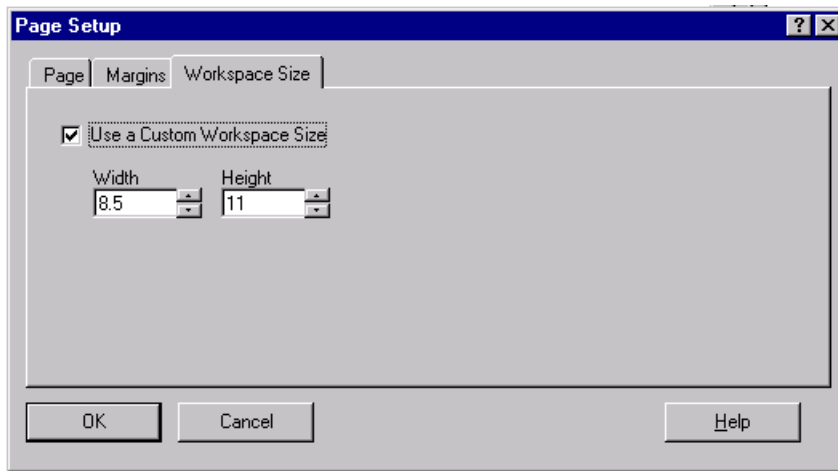
10 When you are finished modifying the **Page Setup** options, click **OK**.

10

Using Functions

You use functions to create formulas. A formula is a series of functions and operators that produce data shown in a report. Financial Reporting functions are organized into two groups: mathematical functions and text functions. This chapter provides information about how to use functions.

Mathematical Functions

You use mathematical functions to perform calculations on numeric values or data from a grid. This section lists the mathematical functions and an explanation of the syntax. Mathematical functions, formulas, and their syntax are not case-sensitive. The following table lists the mathematical functions:

Table 30   Mathematical Functions

Mathematical Function	Description
Abs	Returns the absolute value of numeric values or references.
Average	Returns the average of a group of numeric values or references.
AverageA	Returns the average of a group of numeric values or references. The calculation includes #missing and #error cells only for rows or columns that are not suppressed.
Count	Returns the number of values in a group of numeric values or references.

Mathematical Function	Description
CountA	Returns the number of values in a group of numeric values or references. The calculation includes missing and error cells only for rows or columns that are not suppressed.
Difference	Returns the absolute value of a numeric value or reference subtracted from another numeric value or reference.
Eval	Evaluates an expression. Eval is useful for embedding expressions as function arguments.
IfThen, If	Returns one value if a condition equals true, and another value if a specified condition equals false.
Max	Returns the maximum value of a group of numeric values or references.
Min	Returns the minimum value of a group of numeric values or references.
Mod	Returns the remainder, modulus, from a division formula.
PercentOfTotal	Returns the result of a numeric value or reference divided by another numeric value or reference, multiplied by 100.
Pi	Returns the number 3.14159265358979, to 15 digits.
Product	Multiplies all numbers or references and returns the product.
Random	Returns a random number between 0.0 and 1.0.
Rank	Returns the highest or lowest value of a specified column or row.
Round	Rounds a number up or down by specified digits.
Sqrt	Returns the square root of a numeric value, row, column, or cell.
Sum	Returns the sum of a group of numeric values or references.
Truncate / Trunc	Removes the specified number of digits from numeric values.
Variance / Var	Evaluates the difference between the specified values based on the account type for the current account.
VariancePercent / VarPer	Evaluates the difference, in percent, between the specified values based on account type for the current account.

The syntax for mathematical functions is as follows:

```
FunctionName(arguments)
```

Table 31   Mathematical Functions

Variable	Description
FunctionName	The name of a mathematical function.
arguments	A numeric value, a row, column, or cell reference, or an embedded function.

Arguments

Mathematical functions accept numeric values, row, column, or cell references, or embedded functions as arguments. There are four types of arguments:

- Numeric Arguments
- Property Arguments
- Row, Column, or Cell Reference Arguments
- Embedded Functions as Arguments

Numeric Arguments

The syntax for a numeric argument is

```
(numeral1, numeral2,...numeraln)
```

where numerals *1* through *n* are any numbers including decimals and negative values. For example, the expression Average(10,20,30) returns the value 20.

Row, Column, or Cell Reference Arguments

The row, column, or cell argument identifies a row, column, or cell in a grid. The syntax is:

```
FunctionName(GridName.GridElement[segment(range)].Property)
```

Table 32   **Argument Components**

Argument	Description
GridName	The name of a grid. For example: Difference (grid1.row[5], grid2.row[5]) returns the difference of two rows on grid1 and grid2. Optional: If GridName is not specified, the default is the current grid where the formula is entered.
GridElement	One of the following keywords: row, col, column, or cell. For example, Max(row[1], row[2], row[3]) returns the maximum value of three rows. The keyword row and column or col is optional. The cell reference requires that row and column segment IDs be specified. For example, cell[2, A] refers to the cell that is the intersection between row 2 and column A. The keyword cell is optional. For example, [5,B] refers to the cell which is the intersection between row 5 and column B. Cell references can use the [row, col] syntax or [col, row] syntax. Optional. If a GridElement is specified, letters represent columns and numbers represent rows; for example: Max ([1,A], [2,A], [3,A])
segment	A row, column, or cell reference number of a grid. For an expanded row or column, you must specify the segment. For example, row[2] addresses row segment 2. Segments are enclosed in square brackets [ ]. Required.
range	The rows, columns, or cell that are expanded from the specified segment. If *range* is specified, the system calculates the formula using only the specified range. For example, row[2(3:5)] uses only the 3rd through 5th rows of expanded segment 2. Optional: When *range* is not provided, all expanded cells are used.

Argument	Description
	Note: If a segment expands to only one row or column, do not use the range argument.
property	One of the following keywords: average, averageA, count, countA, max, min, product, and sum. The property is used to aggregate the expanded rows, columns, or cells specified.
	Hyperion recommends that property is *not* specified when a reference is an argument. By not specifying the property, the function calculates the reference in the most appropriate way. For example, the following expression returns the average of the cells within rows 1 and 2:
	`Average(row[1], row[2])`
	Whereas the following example first calculates the average of row[1], then the average of row[2], adds these 2 results, then divides by 2:
	`Average(row[1].average, row[2].average)`
	The default property for a row, column, or cell reference which is *not* used as a function argument is the sum property. For example, the following expression's default property is sum: `row[2]`.
	For more information on properties, see "Property Arguments" on page 205.
	Optional.

Because segment is the only required part of a reference, the following references are the same:

```
Grid1.row[1].sum
[1]
```

AverageA and CountA include #missing and #error cells in the calculation. For example, if row 1 is a segment row that expands to Qtr1 = 100, Qtr2 = 200, Qtr3 = #missing, and Qtr4 = 400, the following function returns the value four (4):

```
row[1].CountA
```

All other functions exclude #missing data or #error cells. For example, the previous example of row 1 that expands to Qtr1 = 100, Qtr2 = 200, Qtr3 = #missing, and Qtr4 = 400, returns three in this example:

```
row[1].Count
```

Property Arguments

Property arguments are a way to consolidate expanded references to a single value which is then used in the calculation. You use property arguments to perform calculations on an aggregate row, column, or cell. The next sections explain the following property arguments:

- Aggregate Property Argument
- Reference Property Argument

Aggregate Property Argument

An aggregate row, column, or cell contains multiple rows, columns, or cells, respectively.

The aggregate property argument is the last argument in the following mathematical function syntax:

```
FunctionName(GridName.Gridelement[segment(range)].property)
```

You apply aggregate properties to a row, column, or cell reference. The following table lists the aggregate properties:

Table 33   Aggregate Properties

Properties	Description
Average	Returns the average of a row, column, or cell. The calculation excludes #missing and #error values.
AverageA	Returns the average of a row, column, or cell. The calculation includes #missing and #error values.
Count	Returns the number of values in a row, column, or cell. The calculation excludes #missing and #error values.
CountA	Returns the number of values in a row, column, or cell. The calculation treats #missing and #error values as zero (0).
Max	Returns the maximum value of a row, column, or cell.
Min	Returns the minimum value of a row, column, or cell.
Product	Returns the product of rows or columns.
Sum	Returns the sum of a row, column, or cell.

When used as a mathematical function argument, the default for property is the same as the function. In the following example the default property is Average:

```
Average(row[2])
```

When not used as a mathematical function argument, the default for property is sum. In the following example the default property is the sum of an aggregate row:

```
row[2]
```

Reference Property Argument

A reference property argument specifies how to treat formula reference results and is used in conjunction with the other properties.

There is one reference property argument: `IfNonNumber/IFFN`.

IfNonNumber specifies a replacement of #Missing and #Error values with a specific numeric value. The syntax is:

```
AXIS[segment(range)].IfNonNumber(arg).AggregateProperty
```

Argument	Description
AXIS	One of the following keywords: row, column, or cell. Optional.
Segment(range)	Indicates any valid axis reference, such as a row number, column letter.
IfNonNumber	Indicates how to treat missing or error data within the Axis Ref.

Argument	Description
(arg)	Indicates what number to use if missing or error data is encountered within the AxisRef.
AggregateProperty	The aggregate function is used for aggregate segments. For more information on AggregateProperty, see "Aggregate Property Argument" on page 205. Optional.

For example:

If cell[1,A] = 3 and

cell[1,B] = #Missing,

The expression:

```
cell[1,A] / cell[1,B]
```

returns #Error.

The expression:

```
cell[1,A] / cell[1,B].ifNonnumber(1)
```

replaces cell[1,B] with 1 and returns a 3.

Note: If you use suppression for #Missing or #Error in a grid, and the grid contains a formula row or column that uses the IfNonNumber property, #Missing and #Error remain suppressed.

Note: When using a Financial Management database connection, and the `MissingValuesAreZeroInFormulasInHFM` option in the `fr_repserver.properties` file is set to one (1), the #Missing value is zero regardless of the setting of the IfNonNumber property. However, if the file is set to zero, the IfNonNumber property behaves as described.

Embedded Functions as Arguments

You can embed functions as arguments within a function.

Example:

In the following example, the function Average is embedded in the function Sum:

sum(row[3:5], avg(row[4:6], 40, 50), row[7; 9], 70, 80)

- Row segments 3, 4 and 5
- The average of row segments 4, 5 and 6, with the numbers 40 and 50
- Row segments 7 and 9
- The numbers 70 and 80

Text Functions

Text functions return report information, such as the report name or the report description. You use text functions in grids or in text objects. You enclose text functions in braces as follows:

<< **TextFunction** (*arguments*) >>

You can use spaces between arguments. All of the arguments are enclosed in quotes, except for numeric arguments.

Note: Arguments related to date formatting are case-sensitive.

You apply text functions to a grid by creating a text row or column, or a heading cell, and then inserting the text function.

Text Function Consideration

When a parameter within a text function contains non-alphanumeric characters, we recommend that it be enclosed within quotes. For example, the parameter "NYC, New York" within the function <<MemberName("Grid1", NYC, New York)>> should be re-stated as <<MemberName("Grid1", "NYC, New York")>>.

The following table lists the text functions:

Table 34 Text Functions

Text Function	Description
Annotation	Returns the requested information about an annotation within a given grid object. Users can define what information about an annotation to return. Multiple syntax are supported.
CalcStatus	Returns the calculation status of a cell in a Financial Management database connection.
CellText	Retrieves the textual content from a Financial Management or Oracle Essbase database connection as follows: ● With Financial Management, retrieves textual content associated with a cell. ● With Planning, retrieves cell annotations associated with a cell. ● With Oracle Essbase, retrieves the textual content from a Linked Reporting Object (LRO) from a Oracle Essbase cell (CellText only applies to a Cell note LRO).
DataSource	Returns the server name, application name, database name, or alias table of a grid.
Date	Returns the date and/or time that an online report is populated with data.
Footnote	Returns the requested information about footnotes within a given report object.
GetCell	Returns a data value from a cell in a grid.
GetHeading	Returns text headings in a grid.

Text Function	Description
GridDimension	Returns the name of a dimension on a grid axis, based on a numeric index or the position of the current cell.
HFMCurrency	Returns the ID of the currency property for a cell in a Financial Management database connection.
ListOfCellDocuments	Returns a list of all cell documents that are selected in a report.
MemberAlias	Returns the alias of the member assigned to a dimension in the grid row, column, or page. Available only for Oracle Essbase and Planning Details.
MemberDescription	Returns the description of the member assigned to a dimension in the grid row, column, or page. Available only for Financial Management.
MemberName	Returns the name of the member assigned to a dimension in the grid row, column, or page.
MemberProperty	Returns the value of member properties within a text cell or text object for a Oracle Essbase, Planning Details, or SAP BW database connection.
MemberQualifiedName	With a Oracle Essbase data source, returns the qualified non unique name of the member assigned to a dimension in the grid row, column, or page. **Note:** This function is supported only for Oracle Essbase 9.0 or later releases.
Page	Returns the current page number in a printed report. This is used in only a text object.
PageCount	Returns the total number of pages in a printed report. This is used only in a text object.
PlanningAnnotations	Retrieves the textual annotations associated with a Planning unit. You can limit your annotations by specifying up to five attribute parameters: author, title, date, text and PlanningUnit. You can also specify certain annotations among all annotations returned.
ProcessManagementStatus	For Financial Management database connection only. Returns the status of a specified cell.
ReportAuthor	Returns the user name of the creator of the report.
ReportCreated	Returns the date the current report was created.
ReportDesc	Returns the text description of the current report.
ReportFolder	Returns the path of the folder where the report is located.
ReportModified	Returns the date the current report was last modified.
ReportModifiedBy	Returns the user name of the last user to save the report.
ReportName	Returns the name of the current report.
ReportRunBy	Returns the name of the user who is running the report.
xbrlContext	Returns the value of the specified of XBRL context property in a column heading.
xbrlLineItem	Returns the value of the specified XBRL line item property in a row heading.

Current / Cur Keyword

You can use the Current keyword with certain text functions to make the formulas more dynamic, more useful, and less redundant. The Current keyword can replace required parameters in text functions. Hard-coded parameters produce the same results, whereas the Current keyword can produce dynamic values. For example, when you use Current for the Page parameter in a multiple page grid, it produces the value for each page.

You can use any form of the Current keyword; current, or cur. Current keywords are not case-sensitive.

Note: The Current keyword is only supported with text functions that are entered in text cells or heading cells of a grid; not text objects. A text cell is the intersection of a text row and/or text column. A heading cell is part of a row, column, or page heading.

Example1

In the GetCell function, many of the parameters are or may be relative to the current cell in which the function is entered. Therefore, the Current keyword can be readily applied to this function. The GetCell function uses the following syntax:

`<<GetCell ("GridName", Row, Column, Page)>>`

In the following example, the hard-coded parameters for the GetCell Function returns the same cell value of Grid 1, cell1A, page1 across multiple pages:

`<<GetCell ("Grid1", 1, A, 1)>>`

The next example uses the Current keyword with the GetCell function. The cell where the function is entered displays different values for each page. Notice that the Current keyword is also applied to the grid name. If the grid name is changed, the text formula is still correct.

`<<GetCell ("current", 1, current, current)>>`

Example 2

When you use the Current keyword in a cell that expands, the results are relative to the expanded cell.

The following example uses GetCell functions in an expanded cell (Column A expands to columns Qtr1, Qtr2, Qtr3 and row 1 expands to rows East and West). Text Row 1 uses the Current keyword for the Column parameter; Text Row 2 uses a hard-coded value for the Column parameter.

Name	Description
	Qtr1, Qtr2, Qtr3
East, West	#
Text Row 1	<<GetCell(cur, 1, cur, cur)>>
Text Row 2	<<GetCell(current, 1, A, 1)>>

The results are indicated in the following table.

Name	Quarter	Quarter	Quarter
	Qtr1	Qtr2	Qtr3
East	5,120	4,502	7,304
West	3,405	2,300	4,462
Text Row 1	5,120	4,502	7,304
Text Row 2	5,120	5,120	5,120

- Text Row 1 uses the Current keyword for the Column parameter which results in the update of the current column of each expanded cell (Qtr1, Qtr2, Qtr3). Also, since the Current Keyword is used for the Page parameter, the values in Text Row 1 update each page relative to the current page of the grid.

- Text Row 2 uses a hard-coded value for the Column parameter (A) which results in the same value of 5,120 for all quarters. A hard coded reference to a Column parameter returns the same top left value of the column and row.

The following table describes only the text functions that support the Current keyword, along with examples and usages.

Table 35   Text Functions that Support the Current Keyword

Text Function	Example
`<<DataSource("GridName.Axis[ID]",InfoType)>>` Parameters where Applicable: - `GridName`: supported in all cells - `InfoType`: not applicable	`<<DataSource(current, "server")>>` **Note:** The current grid name is used.

`<<GetCell("GridName",Row,Col,Page)>>`
 	
Parameters where Applicable:
- `Row`: supported in all cells
- `Col`: supported in all cells
- `Page`: supported in all cells
- `GridName`: supported in all cells
	`<<GetCell(cur, 1, cur, current)>>`
	
	`<<GetCell(cur, 1(3), cur, current)>>`
	
	Note: The value from the third (expanded) row of row 1 is shown.
	
	`<<GetCell(cur, cur, A, current)>>`
	
	`<<GetCell(cur, cur, A(B), current)>>`
	
	Note: The value from the second (expanded) column of column A would be shown.

Use the following in a data row or column heading:
 	
`<<MemberName("DimName")>>`
 	
Use the following in a non-data row or column heading:
	`<<MemberName(current)>>`
	
	`<<MemberName("current", Row/Col/Page, "current")>>`

Text Function	Example
`<<MemberName("GridName",Row/Col/Page,"DimName")>>` Parameters where Applicable: ● `DimName`: Heading cells only	**Note:** Returns the name of the member of the data row, column, or page that corresponds to the dimension where the heading cell, is located. This can be used with the `<<MemberDimension>>` function to create custom headings for a grid.

Use the following in a data row or column heading:
For Oracle Essbase:
`<<MemberAlias("DimName")>>`
For Financial Management:
`<<MemberDescription("DimName")>>`
 	
`<<MemberDesc("DimName")>>`
Use the following in a non-data row or column heading:
`<<MemberAlias("GridName",Row/Col/Page,"DimName")>>`
 	
Parameters where Applicable:
 	
● `DimName`: Heading cells only
	`<<MemberAlias(cur)>>`
	
	`<<MemberDescription(current)>>`
	
	`<<MemberDesc(cur)>>`
	
	`<<MemberAlias("current", Row/Col/Page, "current")>>`
	
	Note: Returns the name of the description (HFM) or Alias (Oracle Essbase) of the data row, column, or page that corresponds to the dimension where the heading cell is located. This can be used with the `<<MemberName>>` function to create custom headings for a grid, or customized text in a text box object.

`<<CalcStatus(`**`"GridName", Row, Col, Page`**`)>>`
 	
Note: The parameters allowing current keyword are highlighted in bold
	`<<CellText(`**`"GridName", Row, Column, Page`**`)>>`
	
	`<<CellText(`**`"GridName", Row, Column, Page,`** `MemberOverride)>>`

`<<GridDimension(`**`"GridName", "Axis", index`**`)>>`
 	
`<<HFMCurrency(`**`"GridName", Row, Col, Page`**`)>>`
 	
Note: The parameters allowing current keyword are highlighted in bold
	`<<MemberAlias(`**`"DimName"`**`)>>`
	
	`<<MemberAlias(`**`"GridName", "DimName"`**`)>>`
	`<<MemberAlias(`**`"GridName", Row│Col│Page, "DimName"`**`)>>`
	
	`<<MemberDesc(`**`"DimName"`**`)>>`
	
	`<<MemberDesc(`**`"GridName", "DimName"`**`)>>`
	
	`<<MemberDesc(`**`"GridName", Row│Col│Page, "DimName"`**`)>>`
	
	`<<MemberName(`**`"DimName"`**`)>>`
	
	`<<MemberName(`**`"GridName", "DimName"`**`)>>`
	
	`<<MemberName(`**`"GridName", Row│Col│Page, "DimName"`**`)>>`
	
	`<<MemberQualifiedName(`**`"DimName"`**`)>>`
	
	`<<MemberQualifiedName(`**`"GridName", "DimName"`**`)>>`
	
	`<<MemberQualifiedName(`**`"GridName", Row│Col│Page, "DimName"`**`)>>`

Text Function	Example

	`<<MemberProperty(`**`DimensionName`**`, Property)>>`
	
	`<<MemberProperty("`**`GridName`**`", `**`DimensionName`**`, Property)>>`
	
	`<<MemberProperty("`**`GridName`**`", `**`Row`**`|`**`Col`**`|`
	`Page``, `**`DimensionName`**`, Property)>>`
	
	`<<PlanningAnnotations("`**`GridName`**`", `**`Row`**`, `**`Column`**`, `**`Page`**`, Attributes)>>`
	
	`<<PlanningAnnotations("`**`GridName`**`", `**`Row`**`, `**`Column`**`, `**`Page`**`, Attributes, Range)>>`

`<<ProcessManagementStatus("`**`GridName`**`", `**`Row`**`, `**`Column`**`, `**`Page`**`)>>` **Note:** The parameters allowing current keyword are highlighted in bold	
`<<ListOfCellDocuments("`**`GridName`**`", Information)>>` **Note:** The parameters allowing current keyword are highlighted in bold	

`<<GridDimension("GridName","Axis",Index)>>`
 	
Parameters, where Applicable:
 	
● `GridName`: supported in all cells
● `Axis`: Heading cells only
● `Index`: Heading cells only
	`<<GridDimension(cur,"Page",1)>>`
	
	`<<GridDimension(cur,cur,cur)>>`
	
	Note: The dimension name corresponding to the heading cell is shown.

`<<GetHeading("GridName",Page,Ref,Offset)>>`
 	
`<<GetHeading("GridName",Page,Ref, "Delim")>>`
 	
Parameters where Applicable:
 	
● `GridName`: supported in all cells
● `Page`: supported in all cells
● `Ref`: supported for in all cells, but should not be used in heading cells*
● `Offset`: Heading cells only
● `Delim`: not applicable
	`<<GetHeading(cur, cur, A, " - ")>>`
	
	`<<GetHeading(cur, cur, 1, " - ")>>`
	
	Note: In the above examples, all headings in column A and row 1 are shown for the current page.
	
	`<<GetHeading(cur, cur, A, cur)>>`
	
	Note: The heading in column A is shown for the dimension that corresponds to where the heading cell with the formula is located.
	
	`<<GetHeading(cur, cur, cur, " - ")>>`
	
	Note: If used within a row text cell, the result is all of the headings in the current column separated by a " - ". This allows users to repeat column headings after a manual page break.

*Usage of the current keyword for the parameter "reference" is limited. The current keyword cannot be used in the GetHeading function when it is entered as a "custom heading" in a row or column because circular reference is created. You can use the current keyword as the third parameter within a cell that is part of a text row or column which is not in the heading area of the grid. For example, if you add the following formula in cell A3 where row 3 is a text row: "<<GetHeading(cur,cur,cur,1)>>", the result is the first heading of column A. You

Text Function	Example

can use the GetHeading function within a heading cell. However, the "reference" parameter should not use the "current" keyword. For example, when you enter in the heading cell of column B"<<GetHeading(cur, cur, A, cur)>>", the column A heading is returned.

List of Functions

Abs

Abs is a mathematical function that returns the absolute value of a numeric value, row, column, or cell. The absolute value of a number is that number without a negative sign. A negative number becomes positive, while a positive number remains positive. The function syntax is:

Abs (argument**)**

where *argument* is one of the following values:

Argument	Description
numeric	A numeric value. For example, Abs (- 20) returns the value 20. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property`. For a definition of the syntax, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following expression includes a numeric argument and returns the value 30:

```
Abs ( -30 )
```

The following example returns the absolute value of the value in row 1:

```
Abs(row[1])
```

The following example calculates the absolute value of the sum of column E:

```
Abs( column[E].sum )
```

The following example points to expanded rows 1 through 3 within design segment 3 of Grid1:

```
Abs( Grid1.row[3(1:3)])
```

Annotation

Annotation returns the requested information about an annotation within a grid object. Users can define what information about an annotation should be returned. The syntaxes are:

- `<<Annotation("GridName", Row, Col, Page, Attributes, Reference, Attachments)>>`

- `<<Annotation"GridName", Row, Col, Page)>>`

- `<<Annotation("GridName", Row, Col, Page, Attributes)>>`

- `<<Annotation("GridName", Row, Col, Page, Attributes, Reference)>>`

- `<<Annotation("GridName", Row, Col, Page, Attributes, Attachments)>>`

Where:

- "*GridName*" is the name of the grid containing the annotations. The "current" keyword is supported when Attribute is used in a grid's text cell or custom heading.

- "*Row*" is the row number on the grid. The "current" keyword is supported in when Attribute is used in a grid's text cell or custom heading.

- "*Col*" is the column reference (letter) on the grid. The "current" keyword is supported when Attribute is used in a grid's text cell or custom heading.

- "*Page*" is the page number within the grid. The "current" keyword is supported when Attribute is used in a grid's text cell or custom heading.

- "*Attributes*" (optional) identifies the information to be returned from the annotation. They may include the keyword All (default value) or a combination of one or more of the following keywords: Title & Description & Author & Date & Category. Attribute keywords can be arranged in any order of output. Each attribute must be separated with an ampersand (&).

- "*Reference*" (optional) is a keyword noting which annotations will be returned, where:.
  - `All` (default) returns the initial annotation and all replies.
  - `Top <n>` returns the initial annotation and first <n> replies.
  - `Bottom <n>` returns the initial annotation and the last <n> replies. The initial annotation is always shown and the number <n> does not include the initial annotation.
  - `BottomOnly <n>` returns the last <n> replies. The initial annotation shown for 4 or less <n> replies; the initial annotation with 5 or more <n> replies is not shown.
  - `First` returns the initial annotation only.
  - `Replies` returns all replies. The initial annotation is not shown.

- "*Attachments*" (optional) is a boolean (true/false) value indicating whether attachments associated with the annotation should print with the report where:
  - `True` means that attachments will print at the end of the report.
  - `False` means that no attachments will print.

Examples

The following are valid examples for using the Annotation function.

- `<<Annotation("Grid1", cur, A, cur, All, All, true)>>`

- `<<Annotation("Grid1", cur, A, cur, Title & Description & Author & Date & Category, Top 10, true)>>`

- `<<Annotation("Grid10", 284, AB, cur, Title & Description & Date & Category, Bottom 10, false)>>`

- `<<Annotation("Grid1", cur, A, cur, Title & Description & Author, BottomOnly 4, false)>>`

- `<<Annotation("Grid Name", 1, A, 1, All)>>`

- `<<Annotation("Grid Name", 1, A, 1, All, First)>>`

- `<<Annotation("Grid Name", 1, cur, cur, All, Replies)>>`

- `<<Annotation("Grid Name", 1, cur, cur)>>`

- `<<Annotation("Grid Name",1, cur, cur, Desc, Replies)>>`

- `<<Annotation(cur, cur, A, cur, Desc)>>`

- `<<Annotation(cur, 3, ABC, cur, title & Desc, true)>>`

- `<<Annotation("folder1\folder2\Grid2", 3,A,cur, Title & Description, true)>>`

- `<<Annotation("current", 294, AB, cur, Title & Description, Top 19)>>`

- `<<Annotation(current, 39, AB, cur, Title & Description & Author, Bottom 40)>>`

Average

Average is a mathematical function that returns the average of a group of numeric values, rows, columns, or cells. Average excludes #missing and #error cells when obtaining the average.

Note: The calculation does not include missing values regardless of whether they are suppressed or not.

The function syntax is:

```
Average(arguments) or Avg(arguments)
```

where *arguments* is one or more of the following values:

Argument	Description
numeric	A numeric value. For example, Average (10, 20, 30) returns the value 20. Numeric values can include decimals and negative values. For more information on numerics, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For a definition of the syntax, see "Row, Column, or Cell Reference Arguments" on page 204. For example Avg(Grid1.row[4(3:5)]) returns the average of grid1, row segment 4, range 3 through 5.

Argument	Description
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following expression returns the value 20:

```
Avg( 10, 30, 20)
```

The following example returns the average of all numbers that are part of three aggregate rows:

```
Average( row[1], row[6], row[8] )
```

The following example calculates the average of three aggregate columns; E, G, and I. The calculation produces three numbers, then calculates the average of the three numbers:

```
Avg(column[E].avg, column[G].avg,column[I].avg)
```

The following example calculates the average of two columns; E on the current grid and E on grid2. The calculation includes all expanded columns:

```
Avg( column[E], grid2.column[E] )
```

The following example calculates the average of aggregate row 3 and divides the average by 100:

```
Avg(row[3])/100
```

AverageA

AverageA is a mathematical function that returns the average of a group of numeric values, rows, columns, or cells. AverageA includes #missing and #error cells, which are treated as zero values when obtaining the average.

Note: #missing and #error are included only for rows or columns that are not suppressed.

The function syntax is:

```
AverageA(arguments) or AvgA(arguments)
```

where *argument*s is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, AverageA (10, 20, 30) returns the value 20. Numeric values can include decimals and negative values.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: GridName.GridElement[segment(range)]. Property. For a definition of the syntax, see "Row, Column, or Cell Reference Arguments" on page 204.

Argument	Description
	For example, AvgA(Grid1.row[4(3:5)] returns the average of grid1, row segment 4, range 3 through 5.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Example

In the following example, if a grid has 4 rows with the values 10, 20, 30, and, #error. The following formula in the 5th row returns the value 15:

```
AverageA([1:4])
```

CalcStatus

CalcStatus is a text function that returns the calculation status of a cell for a Financial Management database connection. You can use the CalcStatus function in report headers, rows, and columns.

The function syntax is as follows:

<<CalcStatus("*GridName*", *Row*, *Col*, *Page***)>>**

Argument	Description
GridName	The name of a Financial Management grid. This value must be enclosed in quotation marks
Row	Numeric value representing the row number of the grid. The first row in a grid has an index of 1, the second row has an index of 2, and so forth.
Col	A letter representing the column ID of the grid. The first column ID is A, the second column ID is B, and so on.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of 1, the second page dimension has an index of 2, and so forth.

The following calculation status values can be returned from Financial Management:

- OK
- OK - No data
- OK - System Changed
- Needs Subcalculate
- Needs Translation
- Needs Consolidation
- Needs Consolidation No Data
- Locked

Example

The following syntax displays the calculation status of the cell that is in row 21, column B on page 1 of Grid1:

```
<<CalcStatus("Grid1",21,B,1)>>
```

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

CellText

CellText is a text function that retrieves the textual content from any of the following database connections:

- A Financial Management cell.

- Planning cell annotations.

- A Linked Reporting Object (LRO) from a Oracle Essbase cell (CellText applies only to a Cell note LRO). For more information, see the *Hyperion Essbase Database Administrator's Guide*.

The row, column, and page arguments apply to the intersection in a grid that contains the linked text or note. The function syntax is:

<<CellText("GridName", Row, Column, Page**)>>**

Another flavor of the CellText function provides an override of the grid's "natural" point of view (POV) to a member selection when a cell does not exist in a grid. The function syntax is:

<<**CellText**("*GridName", Row, Column, Page, MembeOverride*)>>

See "CellText Function with MemberOverride" on page 220 for details.

Argument	Description
GridName	The name of a grid. This value must be enclosed in quotation marks
Row	Numeric value representing the row number of the grid. The first row in a grid has an index of 1, the second row has an index of 2, and so forth.
Column	A letter representing the column of the grid. The first column in a grid has an index of A, the second column has an index of B, and so forth.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of 1, the second page dimension has an index of 2, and so forth.
MemberOverride	A string of dimensions and corresponding member selections that overrides the CellText POV. See "CellText Function with MemberOverride" on page 220 for details.

Note: If the row or column parameters refer to a segment that expands, the top-left expanded cell is used. You can refer to any expanded cell using the "range" notation.

Example

You want to display the text linked to a specific cell in a grid. To do this, first run the report and display it by selecting File, then Web Preview. Note the name of the grid, the page dimension that is selected, and the runtime row and column.

The following example shows a report with the linked text in the cell that is in row 21, column B of a grid and is on the first page dimension. The syntax is:

```
Note re: allocation for Y2002 <<CellText("mygrid",21,B,1)>>.
```

Tip: To view result-time rows and columns, select View, then Row & Column Headers in Web Preview, then preview the report by clicking the Web Preview button.

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

CellText Function with MemberOverride

The *MemberOverride* parameter can consist of one or more dimensions. It uses the following format:

DimensionName = MemberName, DimensionName = MemberName

where:

DimensionName is the name of an override dimension

MemberName is the name of the override member for the dimension.

Follow these guidelines when you specify member overrides:

● If you specify two or more member overrides, separate them with a comma (,) or a semicolon (;) and enclose each dimension and member name in quotation marks (" "), as in the following example:

```
"Entity"="Acme","Period"="Q1"
```

● If you specify only one member override, do not include the separator character.

● Dimension names and member names must be enclosed in quotation marks (" ") if they contain any of the following characters: ; , = ( ) < >.

● For a single member override, the parameter may be enclosed in quotation marks (" "). For example, the CellText function is properly evaluated if you use the following member override statement with it:

```
"Scenario=Budget"
```

The following table provides examples of ways to use the *MemberOverride* parameter in the CellText function:

Table 36 Examples of Using the MemberOverride Parameter

Example	Description
`<<CellText(cur, cur, A, cur)>>`	Existing syntax with no dimension override.
`<<CellText(cur, cur, A, cur, Scenario=Budget)>>`	New syntax with one dimension override.
`<<CellText("Grid Name", 1, A, current, Value = "Entity Currency")>>`	One dimension override using quotation marks in the member name
`<<CellText("Grid Name", 1, A, cur, Value = Entity Currency)>>`	No quotation marks in the member name (which contains a space)
`<<CellText("Grid Name", 1, A, cur, "Value= $USD" = Entity Currency)>>`	Quotation marks surrounding dimension name which contains an equal sign
`<<CellText(Grid1, 1, cur, cur, Value = Entity Currency, Scenario=Actual)>>`	Two-dimension override that uses a comma separator
`<<CellText(Grid1, 1, cur, cur, Value = Entity Currency; Scenario=Actual)>>`	Two-dimension override that uses a semi-colon separator
`<<CellText("Current", 34, BB, cur, "Value"= Entity Currency, Scenario=Actual; Period = Qtr3)>>`	Three-dimension override that uses comma and semicolon separators
`<<CellText(cur, 1(3), A(B), cur, 300 = ABC , "Americas, Value=(in $USD);" = "Entity Currency (USD)" , Scenario=Actual)>>`	Four-dimension override

Count

Count is a mathematical function that returns the number of values in a group of numeric values, rows, columns, or cells. Count excludes #missing and #error when obtaining the count. The function syntax is:

```
Count (arguments)
```

where *argument*s is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Count (10, 20, 30) returns the value 3. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.

Argument	Description
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following example returns the count of three rows, 1, 6, and 8:

```
Count(row[1], row[6], row[8])
```

The following example returns the count of 3 columns:

```
Count( column[E], column[G], column[I] )
```

The following example calculates the count of two columns located on different grids:

```
Count( grid1.column[E], grid2.column[E] )
```

The following example calculates the count of the cell located at row 4, column D:

```
Count(cell[D,4])
```

The following example calculates the count of aggregate row 3 in grid 5:

```
Count(grid5.row[3])
```

CountA

CountA is a mathematical function that returns the number of values in a group of numeric values, rows, columns, or cells. CountA includes #missing and #error cells when obtaining the count only for rows or columns that are not suppressed. The function syntax is:

CountA(arguments**)**

where *arguments* is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, CountA(10,20,30,50) returns the value 4. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: CountA(GridName.GridElement[segment(range)]).property For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Example

In the following example, if a grid has 4 rows with the values 10, 20, 30, and, #error. The following formula in the 5th row returns the count of four rows:

```
CountA([1:4])
```

The following example returns the count of four rows:

```
CountA(row[1], row[6], row[8] row[where data yields #error])
```

DataSource

DataSource is a text function that returns the server name, application name, database, or alias table name of a grid. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

<<DataSource("_GridName.Axis[ID]_**",**_InfoType_**)>>**

Argument	Description
GridName	Any grid in your report, enclosed in quotes. Required.
Axis[]	A pointer to a design segment of the grid. Axis can be one of the following keywords: row, col, or column, and they are not case-sensitive. For example, `<<DataSource("Grid1.Row[1]",DB)>>` addresses the row axis. Optional. When not provided, the grid's default information is returned. You use Axis[ID] when a grid has multiple database connections.
ID	Indicates the design-time, row number, or column letter from which the database connection information is retrieved. If ID points to an invalid or non-existent row or column ID, the grid default settings are used. Also, if a grid does not have a secondary database connection, the grid default settings are used. For example, `<<DataSource("Grid1.Col[A]",DB)>>` addresses Column A. If axis is used, then ID is required.
InfoType	One of the following keywords: ● _Server_ returns the server name. ● _App_ returns the application name. ● _DB_ returns the data base name. ● _Alias_ returns the alias table name. To return the alias, the grid must have the alias table enabled. By default, the alias table is disabled. ● _Name_ returns the database connection name associated with the specified grid. Required.

Note: All arguments are case insensitive.

Example 1:

The following lines use the DataSource function to insert data source information in your report:

```
This report uses the <<DataSource("Grid1", App)>>
with the <<DataSource("Grid1",DB)>> database
```

```
located on the <<DataSource("Grid1",Server)>> server
and uses the <<DataSource("Grid1", Alias)>> alias table.
```

Example 2:

The following shows the database name of the data source associated with the heading where the function was entered:

```
<<DataSource(cur, DB)>>
```

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

Date

Date is a text function that returns the date and time that an online report is populated with data, or the date and time that a snapshot report is saved. The date and time is retrieved from the report server and corresponds to the country where the report server is located. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

<<**Date** ("format")>>

where *format* is a list of characters enclosed in quotes that define the format of the date and time.

The following table lists all *format* date and time characters:

Note: The date and time format characters are case-sensitive.

Table 37   Date and Time Format Characters

Format Characters	Meaning	Data Type	Example
G	era designator	text	AD
M	month in year	text or number	If the month is July: M displays: 7 MM displays: 07 MMM displays: Jul MMMM displays: July
d	day in month	number	10
h	hour in am/pm (1-12)	number	11
H	hour in day (0-23)	number	22
m	minute in hour	number	30
s	second in minute	number	25
S	millisecond	number	978
E	day in week	text	E: Tue EE: Tuesday

Format Characters	Meaning	Data Type	Example
D	day in year	number	189
F	day of week in month	number	<<Date("dd-MMM-yy 'is the' F 'th ' E 'of' 'MMM")>> displays: 24-Dec-02 is the 4th Tue of Dec
w	week in year	number	27
W	week in month	number	2
a	am/pm marker	text	PM
k	hour in day (1-24)	number	23
K	hour in am/pm (0-11)	number	If the time is 3:37PM: 3
z	time zone	text	Pacific Standard Time
y	year	number	2002,02
'	literal text	text	<<Date(" D'th day of 'yyyy")>> displays: 105th day of 2002
' '	two single quotes to produce one single quote	text	<<Date("k:mm 'O''Clock' a")>> displays: 6:15 O'Clock PM **Note:** Use 2 single quotation marks to produce a single quote or an apostrophe as in O'Clock (O''Clock).

The number or count of format characters determines the exact format:

- For text, less than four pattern letters means use short or abbreviated form, if it exists.
- Four or more pattern letters means use full form.
- M or MM means use the month as a number.
- MMM means use the three-letter abbreviation for the month.
- MMMM means use the full name of the month.

For example, if the date is April 24:

`<<Date("dd-M-yy")>> displays 24-4-02`

`<<Date("dd-MM-yy")>> displays 24-04-02`

`<<Date("dd-MMM-yy")>> displays 24-Apr-02`

`<<Date("dd-MMMM-yy")>> displays 24-April-02`

For numbers, the number of pattern letters is the minimum number of digits. Shorter numbers are padded with zeros. Year is a special case. If you use "yy", the last two digits of the year are displayed, but if you use "yyyy," the four-digit year is displayed.

For example, if the month is February:

`<<Date("MM-yyyy")>>` displays `02-2002`

All upper and lower case alphabet characters are considered patterns, regardless of whether they are designated format characters.

If you want literal text, you must enclose that text within single quotes. If you want to use a single quote in literal text, you must enclose the text within single quotes and use two single quotes for the apostrophe.

For example, the format to print 4 o'clock is:

```
<<Date("hh 'o''clock' ")>>
```

Examples:

The following table demonstrates some common date and time format options. Insert any of these in a report in locations that allows text.

Date Format	Result
<<Date("d/M/yy")>>	23/3/02
<<Date("d-MMM-yy")>>	23-Mar-02
<<Date("EEEE, MMMM dd, yyyy")>>	Tuesday, March 23, 2002
<<Date("h:mm:ss a")>>	12:52:05 PM
<<Date("h:mm:ss a zzzz")>>	12:52:05 PM Eastern Standard Time
<<Date("EEEE, MMMM dd, yyyy G 'time:' h:mm:ss a zzzz")>>	Tuesday, March 23, 2002 AD time: 12:52:05 PM Eastern Standard Time
<<Date("hh 'o''clock' a, zzzz")>>	12 O' Clock PM, Eastern Standard Time **Note:** You must use two single quotation marks to produce one single quotation mark in the text of your formatted result.

Difference

Difference is a mathematical function that returns the absolute value of the difference of a numeric value, row, or column subtracted from another numeric value, row, or column. This is also known as the variance. The function syntax is:

Difference(arg1, arg2)

where *arg2* is subtracted from *arg1* and are expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Difference (3, 5) returns the absolute value 2. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204. The following example returns the difference of two rows on grid1 and grid2: Difference(grid1.row[1], grid2.row[6])
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Note: The Difference function returns the absolute value of arg2 subtracted from arg1, whereas the minus sign in subtraction negates a number.

Examples:

The following example returns the absolute value of 8:

```
Difference(3, -5)
```

The following example calculates the difference of two aggregate columns:

```
Difference( column[E], column[G] )
```

The following example calculates the difference of two columns that are located on different grids, grid1 and grid2:

```
Difference(grid1.column[E], grid2.column[E])
```

Note: You can type the text label "Difference" or "Variance".

Eval

Eval is a mathematical function that evaluates an expression. You use Eval as an embedded function argument to consolidate multiple expressions into one expression. The function syntax is:

Eval(*expression*)

where *expression* is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.

Argument	Description
row, column, or reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.
operators	Use any of the supported arithmetic operators (+, -, *, /, ^, %, and so on).

Example

The following example divides row 1 by row 2 and then rounds the data to 4 places:

```
Round(Eval([1]/[2]),4)
```

Footnote

The Footnote text function, used in Text Objects only, returns the requested information about footnotes within a given report object. This function will print information about any footnotes which occur in the object specified, or in all the objects in the report if the first parameter is set to "all". When a grid is referenced, all the footnotes on the grid are printed. The partial POV footnotes are printed (once each) first, followed by any full POV footnotes. The full POV footnotes are printed in order based on the location of the cell from top left to bottom right, page by page. Multiple syntax are supported.

The function syntax are:

Footnote("ObjectName", Attributes, Reference, Attachments)

Footnote("ObjectName")

Footnote("ObjectName", Attributes)

Footnote("ObjectName", Attributes, Reference)

Footnote("ObjectName", Attributes, Attachments)

Argument	Description
ObjectName	The name of a report object containing the footnotes. If "all" is used, the function returns all available footnotes from all objects in the report. The ObjectName parameter will update when a grid object is renamed.
Attributes (optional)	Identifies the information to be returned from the footnote. This may include the following keywords: • **All** (default value) • A combination of one or more of the Attribute keywords; **Title & Description (Desc) & Author & Date & Category** The Attribute keywords may be arranged in the preferred order of output. Each attribute must be separated with an ampersand (&).
Reference	a keyword denoting which annotations will be returned where:

Argument	Description
	• **All** (default value)—shows the initial annotation and all replies
	• **Top <n>** —shows the initial annotation and first replies. The initial annotation is always shown, and the number does not include that initial annotation
	• **Bottom**—shows the initial annotation and the last number of replies specified in **Bottom <n>**. The initial annotation is always shown, and the **Bottom** number does not include that initial annotation
	• **BottomOnly <n>**—shows the last replies. The initial annotation is not shown unless there are less replies than the **BottomOnly <n>** number. For example, BottomOnly 5 for an annotation with 5 replies do not show the initial annotation, but for an annotation with 4 replies, the initial annotation is shown.
	• **First** shows the initial annotation only
	• **Replies** shows all the replies except the initial annotation
Attachments (optional)	A boolean (true/false) value indicating whether any attachments should be printed with the footnote where:
	• **True**—attachments will print along with the report, at the end
	• **False** (default value)—attachments will not print

Examples

<<Footnote("Grid1", All, All, true)>>

<<Footnote(All, All, All, true)>>

<<Footnote(All, All, Bottom 2, true)>>

<<Footnote(All, All, BottomOnly 20, true)>>

<<Footnote(All, All, First, true)>>

<<Footnote(All, All, Replies, true)>>

<<Footnote("Grid1", Title & Description & Author & Date & Category, All, true)>>

<<Footnote("Text1", Title & Description & Date & Category, Top 10, false)>>

<<Footnote("Image1", Title & Description & Author, Bottom 4, false)>>

<<Footnote("Text1", Title&Description&Author, BottomOnly 12)>>

<<Footnote("Image1", Title&Description&Author, First)>>

<<Footnote("Grid2", Title&Description&Author, Replies)>>

<<Footnote("Grid Name")>>

<<Footnote(all, All)>>

<<Footnote(cur, Description)>>

<<Footnote(cur, title & Description, true)>>

<<Footnote(cur, title & Author & Description, false)>>

<<Footnote("folder1\folder 2\Grid1", title & Description&Category, Top20)>>

<<Footnote("folder1\folder 2\Grid1", title & Description&Category, Bottom 2)>>

<<Footnote("folder1\folder 2\Chart2", title & Description, Top 20, False)>>

<<Footnote("current", title & Description, All)>>

<<Footnote("current", title & Description, first)>>

<<Footnote(All, Title&Description&author, Top 40, true)>>

GetCell

GetCell is a text function that returns a data value from a grid. The row, column, and page arguments apply to the grid.

Note: When referencing a cell containing Planning, GetCell returns a string value instead of a number.

The function syntax is:

<<**GetCell**("GridName", Row, Column, Page)>>

Argument	Description
GridName	The name of a grid or the Current keyword.
Row	Numeric value representing the row number of the grid. The first row in a grid has an index of one, the second row has an index of two, and so forth. The Current keyword can also be used.
Column	A letter representing the column of the grid. The first column in a grid has an index of A, the second column has an index of B, and so forth.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of one, the second page dimension has an index of two, and so forth.

Note: The Current keyword can be used in any of the parameters. Doing so, make the function more dynamic. For information and examples, see "Current / Cur Keyword" on page 210.

Note: **If the** row or column parameters refer to a segment that expands, the top-left expanded cell is used. You can refer to any expanded cell using the "range" notation.

Example

You set up a grid to show the grand total of several quarter's net income. You want to display this value in a text box that contains an executive summary of the report.

The following example shows a report with the value in the cell that is in row 21, column B of a grid and is on the first page dimension. The syntax is:

The grand total for the period was <<GetCell("mygrid",21,B,1)>>.

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

GetHeading

GetHeading is a text function that obtains text headings from a specified grid.

The function has two syntax:

<<**GetHeading**("GridName", *Page*, *Reference*, *Offset*)>>

<<**GetHeading**("GridName", *Page*, *Reference*, "Delimiter")>>

Argument	Description
GridName	The name of a grid containing the heading to extract. The Current keyword can also be used.
Page	The numeric value of the page containing the heading. The Current keyword can also be used.
Reference	Reference is a view time reference of the heading to obtain. The Current keyword can also be used. For further information on the Reference syntax see "Row, Column, or Cell Reference Arguments" on page 204.
Offset	Offset applies to a row or column heading with more than one dimension . It is a number representing the dimension in the heading. If you provide a numeric offset, you are returned a single dimension heading. For example, a row heading with 3 dimensions, you can specify (starting from left to right) "1" to return the first dimension, "2" to return the second dimension and "3" to return the third dimension.
"Delimiter"	"Delimiter" is a quoted string that separates all headings from the row or column. If you provide a delimiter, you obtain all headings in the reference, separated by the provided delimiter.

Examples:

Use GetHeading to return column and row headings.

		A(A)	A(B)	A(C)
		Actual	Actual	Actual
		Jan	Feb	Mar
1(1)	Georgia	112	67	73
1(2)	East	5,864	3,322	3,789
1(3)	Market	15,904	9,277	10,640

Type any of these lines for the previous sample grid:

GetHeading Example	Gets or Returns
GetHeading("Grid1",1,A,2)	Jan
GetHeading("Grid1",1,A(B),2)	Feb
GetHeading("Grid1",1,A(C),"-")	Actual - Mar
GetHeading("Grid1",1,1,1)	Georgia
GetHeading("Grid1",1,1(2),1)	East
GetHeading("Grid1",1,1(2),2	<error> (it is an invalid reference)
GetHeading("Grid1",1,1(3),"-")	Market

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

GridDimension

GridDimension is a text function that returns the name of a dimension on a grid's page, column, or row axis. The function syntax is:

```
<<GridDimension("GridName", "Axis", index)>>
```

Argument	Description
GridName	The name of a grid in the report enclosed in quotes. The Current keyword can also be used.
Axis	The grid axis where the dimension is placed: Page, Col, or Row. Keywords must be used. The Current keyword can also be used.
index	A numeric value representing the offset or index of the dimension on the named axis. The first dimension on an axis has an index of one, the second dimension has an index of two, and so on. **Note:** You can use the Current keyword on a heading cell only (page, row, or column).

Example

You create a shared grid, named *mygrid*, that has several dimensions on each of the row, column, and page axes. You want to display the name of the first dimension on the row axis in a text box. Because that dimension may change in the future, you use the GridDimension function in the text box. Type the following in the text box:

```
This report is based on the <<GridDimension("mygrid","Row",1)>> dimension.
```

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

HFMCurrency

HFMCurrency is a text function that returns the ID of the currency property for a cell in a Financial Management database connection.

The function syntax is as follows:

<<HFMCurrency("*GridName*", *Row*, *Col*, *Page***)>>**

Argument	Description
GridName	The name of a Financial Management grid. This value must be enclosed in quotation marks
Row	Numeric value representing the row index of the grid. The first row in a grid has an index of 1, the second row has an index of 2, and so forth.
Col	A letter representing the column of the grid. The first column in a grid has an index of A, the second column has an index of B, and so forth.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of 1, the second page dimension has an index of 2, and so forth.

A designer can map the string returned from Financial Management to another string by way of a properties file change. The mappings are defined in `fr_global.properties` in the HFM Entity Currency section. For example, a designer might add these lines to HFM Entity Currency section:

```
EntityCurrency_USD=$
EntityCurrency_EUR=_
```

If USD is returned from Financial Management, the U.S. dollar symbol ($) is displayed; if EUR is returned from Financial Management, the European euro symbol (_) is displayed. The properties file includes these and other examples as comments.

Example

The following syntax displays the currency property for the cell that is in row 21, column B on page 1 of Grid1:

```
<<HFMCurrency("Grid1",21,B,1)>>
```

Note: This function supports the Current keyword. For information and examples, see "Current / Cur Keyword" on page 210.

ListOfCellDocuments

ListOfCellDocuments is only available with Financial Management or Oracle Essbase as the database connection.

ListOfCellDocuments is a text function that returns a list of all cell documents and their file attributes that a designer has selected to be retrieved from cells within a report. You can use this function in a text box, text cell or text cell heading.

In Financial Management or Oracle Essbase, documents are inserted into the data source cells of a report. The Financial Reporting designer selects the cells and chooses Retrieve Cell Documents on the property sheet. If those documents exist, they are appended to the report when printed or saved as a snapshot or PDF. to view the list of cell documents that exist, the designer adds the ListOfCellDocuments to the report in a text box, text cell or text cell heading.

The function syntax is:

<<**ListOfCellDocuments** ("GridName", FileName&Description&PageNumber)>>

Argument	Description
GridName	The name of a grid in the report.
FileName	Returns the name of the cell document.
	Note: Documents extracted from the Financial Management database connection, are truncated to 20 characters; 16 characters for the document name, and 4 characters for the file name extension.
Description	Returns the description of each cell document.
PageNumber	Returns the consecutive start page number of each cell document within the report. This is not necessarily the page number specified on the document.
	Note: Page numbers only display when selecting PDF format for print or Web preview.

Example:

In the following example, two grids in the report are selected to print cell document information. In Grid1, the file name, description, and the consecutive start page number of the extracted cell documents are requested, in Grid2 only the file name and start page numbers are requested.

```
<<ListOfCellDocuments ("Grid1", FileName&Description&PageNumber)>>

<<ListOfCellDocuments ("Grid2", FileName&PageNumber)>>
```

The resulting list might look similar to the following, where Grid1 has two attached documents and Grid2 has one attached document:

Attached Documents:

```
April Variance High Volume Page3

April Variance Low Volume Page9

May Variance Page 18
```

Note: This function supports the Current keyword. For information and examples, see

IfThen, If

IfThen is a conditional function that returns a value when the condition equals True, and another value when the condition equals False.

The function syntax is as follows:

```
IfThen(Condition, TrueParameter, FalseParameter)
```

- *Condition* is a logical expression that evaluates to true or false. Full conditional logic can be used as well as complex Boolean operators (And, Not, and Or). A *condition* can also test for #missing and #error values. See the following table for a list of valid conditional operators.

- *TrueParameter* and *FalseParameter* are any valid expression that are evaluated based on the outcome of the condition.

The following table describes the conditional operators that are fully supported. Alternate syntax is listed wherever it is supported by a conditional operator.

Table 38   Conditional Operators

Conditional Operator	Syntax	Logic
Equal To	`expression = expression`	Tests if the left expression is equal to the right expression. **Note:** The routine that evaluates the condition does not consider any rounding. If rounding is required, use the Round function. Example**:** `1= 4` Returns false
Greater Than	`expression > expression`	Tests if the left expression is greater than the right expression. **Example:** `1 > 4` Returns false
Greater Than or Equal To	`expression >= expression`	Tests if the left expression is greater than or equal to the right expression. **Note:** The correct syntax is ">=". The syntax "=>" is not supported. **Example:** `1 >= 4` Returns false
Less Than	`expression < expression`	Tests if the left expression is less than the right expression. **Example:** `1 < 4` Returns true
Less Than or Equal To	`expression <= expression`	Tests if the left expression is less than or equal to the right expression. **Note:** The correct syntax is "<=". The syntax "=<" is not supported.

Conditional Operator	Syntax	Logic
		Example: 1 <= 4 Returns true

Not Equal To	*expression* <> *expression*
	
	expression != *expression*
		Tests if the left expression is not equal to the right expression.
		
		Note: The routine that evaluates the condition does not consider any rounding. If rounding is required, use the Round function.
		
		Example:
		
		    1 <> 4
		
		Returns true
		
		    1 != 4
		
		Returns true

IsMissing	IsMissing (*reference*) IsMiss (*reference*)	Tests if the reference contains a #missing result. **Note:** If the reference is an expanded row or column, then all resulting cells must be #missing in order for the condition to be true. **Example**: IsMissing([1]) Returns true if row 1 has a #missing value.
IsError	IsError (*reference*) IsErr (*reference*)	Tests if the reference contains an #error result. **Note:** If the reference is an expanded row or column, all resulting cells must be #error in order for the condition to be true. Only formula rows and columns can result in #error. Example: IsError([2]) Returns true if row 2 has a #error value.
IsNonNumeric	IsNN (*reference*) IsNonNumerid (*reference*) IfNN (*reference*) IfNonNumber (*reference*)	Tests if the reference contains a #missing or #error results. **Note:** If the reference is an expanded row or column, all resulting cells must be #missing and/or #error in order for the condition to be true. **Example:** IsNN([3])

Conditional Operator	Syntax	Logic
		Returns true if row 3 has a #missing or #error value.
Parenthesis	`(condition)`	Used to group a condition. Mostly used for visual clarity. **Example:** `(1 > 4)` Returns false

Table 39   Complex Conditions

Complex Conditions	Syntax	Logic

And	`(condition AND condition)`
	
	`(condition & condition)`
		Complex condition used to compare two conditions. Returns true if all conditions result in true.
		
		Example:
		
		`(1 > 4 AND 5 > 2)`
		
		Returns false

Not	`NOT (condition)`
	
	`! (condition)`
		Used to negate the result by reversing the result of the condition.
		
		Example:
		
		`Not (1 > 4)`
		
		Returns true

Or	`(condition OR condition)`
	
	`(condition | condition)`
		Complex condition used to compare two conditions. Returns true if any of the conditions result in true.
		
		Example:
		
		`(1 > 4 OR 5 > 2)`
		
		Returns true

Notes on Conditions

- `Expression` can be any valid formula expression. The expression can be any combination of a constant (integer or real number), a reference, or another function.

- `Reference` can be any valid reference; thus the IFNN reference property can be utilized as part of the reference.

- `Condition` can be any valid condition applied to the complex conditions And, Not, and Or. Those operators can have embedded conditions.

> **Note:** And, Not, and Or operators require surrounding parentheses. See "Complex Conditions" on page 238 for additional information.

- When any `expression` within the condition returns an #error or #missing value, the If function returns #missing or #error. This does not apply when you use the IsMissing, IsError, or IsNonNumeric conditions.

Complex Conditions

Complex conditions And, Or, and Not are fully supported. However, they must be surrounded by parentheses.

Valid example:

```
If ( ([A] > [B] and [A] > 1000), [A], [B])
```

Invalid example:

```
If ( [A] > [B] and [A] > 1000, [A], [B])
```

Max

Max function is a mathematical function that returns the maximum value in a group of numeric values, rows, columns, or cells. The function syntax is:

```
Max (arguments)
```

where *arguments* is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Max (10, 20, 30) returns the value 30. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property`. For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following example returns the maximum value in rows 1, 6, and 8:

```
Max(row[1], row[6], row[8])
```

The following example calculates the maximum of the sums of aggregate rows:

```
Max(row[1].sum, row[2].sum, row[3].sum)
```

MemberAlias

This function is available only with Oracle Essbase or Planning Details as the database connection.

MemberAlias is a text function. Based on the syntax used, it returns the alias of the member assigned to a dimension in the row, column, page, or Point of View (POV).

- The following syntax returns the alias of a row heading, column heading or page. The syntax can be deployed from any heading cell, text cell or text box object and can reference any grid in a current report.

  <<**MemberAlias**("*GridName*", *Row/Col/Page*, "*DimName*")>>

- The following syntax returns the alias in a row heading, column heading, or page. The syntax can be deployed from any row, column or page heading in a grid that is designated as a custom heading. To designate a custom heading, click the page, row heading or column heading, then select **Custom Heading** on the property sheet. You can add the function in the space provided below the custom heading.

  <<**MemberAlias**("*DimName*")>>

- The following syntax returns the alias of a grid or user POV. The syntax can be deployed from any text cell or text box object and can reference any grid and corresponding POV in a current report.

  <<**MemberAlias**("*GridName*", "*POV DimName*")>>

where:

- *GridName* is the name of the grid.
- *Row/Col/Page* is the numeric identifier of the row, the alphabetical identifier of the column, or the numeric identifier of the page.
- *DimName* is the name of a dimension in the grid row, column, or page.
- *POV DimName* is the name of the dimension on the grid or user POV.

Example:

The following examples yield the alias Diet Root Beer, which is the alias that is assigned to the Product dimension in Grid1, column A:

```
<<MemberAlias("Grid1", A, "Product")>>
```

```
<<MemberAlias(current, A, "Product")>>
```

The following examples yields the alias for the Year dimension. The syntax is placed on the grid's custom heading:

```
<<MemberAlias("Year")>>
```

```
<<MemberAlias(current)>>
```

The following examples yields the alias for the Scenario dimension for the POV associated with Grid1:

```
<<MemberAlias("Grid1", "Scenario")>>
```

```
<<MemberAlias(current, "Scenario")>>
```

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see "Current / Cur Keyword" on page 210.

MemberDescription

This function is available only with Financial Management as the database connection.

MemberDescription is a text function. Based on the syntax used, it returns the description of the member assigned to a dimension in the row, column, page, or Point of View (POV).

- The following syntax returns the description of a row heading, column heading or page. The syntax can be deployed from any heading cell, text cell or text box object and can reference any grid in a current report.

  <<**MemberDescription**(*"GridName", Row/Col/Page, "DimName"*)>>

- The following syntax returns the description in a row heading, column heading, or page. The syntax can be deployed from any row, column or page heading in a grid that is designated as a custom heading. To designate a custom heading, click the page, row heading or column heading, then select **Custom Heading** on the property sheet. You can add the function in the space provided below the custom heading.

  <<**MemberDescription**(*"DimName"*)>>

- The following syntax returns the description of a grid or user POV. The syntax can be deployed from any text cell or text box object and can reference any grid and corresponding POV in a current report.

  <<**MemberDescription**(*"GridName", "POV DimName"*)>>

where:

- *GridName* is the name of the grid.
- *Row/Col/Page* is the numeric identifier of the row, the alphabetical identifier of the column, or the numeric identifier of the page.
- *DimName* is the name of a dimension in the grid row, column, or page.
- *POV DimName* is the name of the dimension on the grid or user POV.

Example:

The following examples yield the description that is assigned to the Product dimension in Grid1, column A:

<<MemberDescription("Grid1", A, "Product")>>

<<MemberDescription(current, A, "Product")>>

The following examples yields the description for the Year dimension. The syntax is placed on the grid's custom heading:

<<MemberDescription("*Year*")>>

<<MemberDescription(Current)>>

The following examples yields the description for the Scenario dimension for the POV associated with Grid1:

<<MemberDescription("*Grid1*", "*Scenario*")>>

<<MemberDescription(current, "*Scenario*")>>

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see

MemberName

MemberName is a text function. Based on the syntax used, it returns the name of the member assigned to a dimension in the row, column, page, or Point of View (POV).

- The following syntax returns the name of a row heading, column heading or page. The syntax can be deployed from any heading cell, text cell or text box object and can reference any grid in a current report.

  <<**MemberName**("*GridName*", *Row/Col/Page*, "*DimName*")>>

- The following syntax returns the name in a row heading, column heading, or page. The syntax can be deployed from any row, column or page heading in a grid that is designated as a custom heading. To designate a custom heading, click the page, row heading or column heading, then select **Custom Heading** on the property sheet. You can add the function in the space provided below the custom heading.

  <<**MemberName**(*"DimName"*)>>

- The following syntax returns the name of a grid or user POV. The syntax can be deployed from any text cell or text box object and can reference any grid and corresponding POV in a current report.

  <<**MemberName**("*GridName*", "*POV DimName*")>>

where:

- *GridName* is the name of the grid.
- *Row/Col/Page* is the numeric identifier of the row, the alphabetical identifier of the column, or the numeric identifier of the page.
- *DimName* is the name of a dimension in the grid row, column, or page.
- *POV DimName* is the name of the dimension on the grid or user POV.

Example:

The following examples yield the name that is assigned to the Product dimension in Grid1, column A:

```
<<MemberName("Grid1", A, "Product")>>

<<MemberName(current, A, "Product")>>
```

The following example yields the name for the Year dimension. The syntax is placed on the grid's custom heading:

```
<<MemberName("Year")>>
```

The following examples yields the name for the Scenario dimension for the POV associated with Grid1:

```
<<MemberName("Grid1", "Scenario")>>
```

```
<<MemberName(current, "Scenario")>>
```

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see .

MemberProperty

This function is applicable to Planning Details, Oracle Essbase, SSAS, and SAP BW database connections.

MemberProperty is a text function. Based on the syntax used, it returns the member property value of a dimension in the row, column, page, or Point of View (POV). You can use this function to display a member property in a text row or column.

- The following syntax returns the member property of a row heading, column heading or page. The syntax can be deployed from any heading cell, text cell or text box object and can reference any grid in a current report.

  <<**MemberProperty**(*"GridName", Row/Col/Page, DimName, Property*)>>

- The following syntax returns the member property in a row heading, column heading, or page. The syntax can be deployed from any row, column or page heading in a grid that is designated as a custom heading. To designate a custom heading, click the page, row heading or column heading, then select **Custom Heading** on the property sheet. You can add the function in the space provided below the custom heading.

  <<**MemberProperty**(*"DimName", Property*)>>

- The following syntax returns the member property of a grid or user POV. The syntax can be deployed from any text cell or text box object and can reference any grid and corresponding POV in a current report.

  <<**MemberProperty**(*"GridName", POV DimName, Property*)>>

where:

- *GridName* is the name of the grid.
- *Row/Col/Page* is the numeric identifier of the row, the alphabetical identifier of the column, or the numeric identifier of the page.
- *DimName* is the name of a dimension in the grid row, column, or page.
- *POV DimName* is the name of the dimension on the grid or user POV.
- *Property* is any custom property (attribute dimensions)

Example:

The following examples yield the member property that is assigned to the Product dimension in Grid1, column A:

```
<<MemberProperty("Grid1", A, Product,Pkg Type)>>
```

```
<<MemberProperty(current, A, Product, Pkg Type)>>
```

The following examples yields the member property for the Market dimension. The syntax is placed on the grid's custom heading:

```
<<MemberProperty("Market", Population)>>

<<MemberProperty(current, Population)>>
```

The following examples yields the member property for the Market dimension for the POV associated with Grid1:

```
<<MemberProperty("Grid1", Market, CurrencyCategory)>>

<<MemberProperty(current, Market, CurrencyCategory)>>
```

The following example retrieves the Member Alias and Ounces property of a product in a custom heading. You do this by selecting the heading, then on the Heading Row Properties sheet, selecting the Custom Heading option and clicking the Functions button. The syntax as follows:

```
<<MemberAlias(current, current, Product)>>:
<<MemberProperty(current, current, Product, Ounces)>>
```

The report output would resemble the following example:

	Qtr 1
Cola : Ounces_12	5,096
Diet Cola : Ounces_12	1,359
Caffeine Free Cola : Ounces_16	593

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see "Current / Cur Keyword" on page 210.

MemberQualifiedName

MemberQualifiedName is a text function for use with Oracle Essbase data sources. Based on the syntax used, it returns the qualified name of a non unique member assigned to a dimension in the row, column, page, or Point of View (POV). A non unique member is a child of multiple parents.

Note: This function is supported only for Oracle Essbase 9.0 or later releases.

For example, if a member named 100 that is a child of the Product1 member and the Product 2 member, then 100 is a non unique member name. The MemberQualifiedName function shows the qualified names in reports. The qualified member names in this example are [Product1]. [100] and [Product2].[100].

- The following syntax returns the name of a row heading, column heading or page. The syntax can be deployed from any heading cell, text cell or text box object and can reference any grid in a current report.

  <<**MemberQualifiedName**("*GridName*", *Row/Col/Page*, "*DimName*")>>

- The following syntax returns the qualified name in a row heading, column heading, or page. The syntax can be deployed from any row, column or page heading in a grid that is designated as a custom heading. To designate a custom heading, click the page, row heading or column heading, then select Custom Heading on the property sheet. You can add the function in the space provided below the custom heading.

   <<**MemberQualifiedName**(*"DimName"*)>>

- The following syntax returns the name of a grid or user POV. The syntax can be deployed from any text cell or text box object and can reference any grid and corresponding POV in a current report.

   <<**MemberQualfiedName**("*GridName*", "*POV DimName*")>>

where:

- *GridName* is the name of the grid.
- *Row/Col/Page* is the numeric identifier of the row, the alphabetical identifier of the column, or the numeric identifier of the page.
- *DimName* is the name of a dimension in the grid row, column, or page.
- *POV DimName* is the name of the dimension on the grid or user POV.

Example:

The following examples yield the qualified non unique name that is assigned to a the Product dimension in Grid1, column A:

```
<<MemberQualifiedName("Grid1", A, "Product")>>
```

```
<<MemberQualifiedName(current, A, "Product")>>
```

The following examples yields the name for the Year dimension. The syntax is placed on the grid's custom heading:

```
<<MemberQualifiedName("Year")>>
```

The following examples yields the qualified non unique name for the Scenario dimension for the POV associated with Grid1:

```
<<MemberQualifiedName("Grid1", "Scenario")>>
```

```
<<MemberQualifiedName(current, "Scenario")>>
```

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see "Current / Cur Keyword" on page 210.

Min

Min is a mathematical function that returns the minimum value in a group of numeric values, rows, columns, or cells. The function syntax is as follows:

```
Min (arguments)
```

where *argument*s is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Min (10, 20, 30) returns the value 10. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following example returns the minimum value in rows 1, 6, and 8:

```
Min (row[1], row[6], row[8])
```

The following example calculates the minimum of the sums of aggregate rows:

```
Min(row[1].sum, row[2].sum, row[3].sum)
```

Mod

Mod is a mathematical function that returns the remainder, or modulus, from a division. The function syntax is:

Mod (*arg1, arg2*)

where *arg2* is the divisor and *arg1* and *arg2* are expressed by the following arguments:

Argument	Description
numeric	A numeric value. For example, Mod (6, 4) returns the value 2. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Example:

The following example divides 10 by 5 and returns the remainder of 0:

```
Mod (10,5) = 0
```

Page

Page is a text function that returns the current page number of a printed report. You can use this function in a text object to display the current page in a printed report. The function syntax is:

<<Page()>>

Note: The page function works for printed reports only. Online reports display [[PageCount( )]] for the page number.

Example:

If the current page is eight, the following example yields: Page 8.

```
Page <<PAGE()>>
```

Note: The page axis on a grid is different from the page number in a printed report.

PageCount

PageCount is a text function that returns the total number of pages in a printed report. You can use this function in a text object. The function syntax is:

<<PageCount()>>

Note: The PageCount function works for printed reports only. Online reports display [[PageCount( )]] for the page number.

Example:

If the current page count is 6, the following example yields: The total number of pages are: 6.

```
The total number of pages is: <<PageCount()>>
```

PercentOfTotal

PercentOfTotal is a mathematical function that returns the result of a numeric value, row, column, or cell divided by another numeric value, row, column, or cell which is multiplied by 100. The function syntax is:

PercentOfTotal (arg1, arg2**)**

- where *arg1* is a component of the running total (*arg2*). Normally, this is a row or column reference.

- where *arg2* is the running total relative to *arg1*. Normally this is a cell reference containing the grand total.

- *arg1* is divided by *arg2,* with the result multiplied by 100. `Arg1` and `arg2` are expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, PercentofTotal (100, 20) returns the value 500. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].Property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Note: This function requires two arguments.

Examples:

The following example returns the value of 5 percent.

```
PercentofTotal(20, 400)
```

The following example divides the value of each cell in column A by the Total Mkt value in cell A5, multiplies the result by 100, and displays the resulting PercentOfTotal in column B. The formula:

```
 PercentOfTotal ([A], [A,5]),
```

Using the above example, the following table shows the PercentOfTotal results in column B:

		A	B
1		Sales	% Total
2	Mkt1	60	**20%**
3	Mkt2	120	**40%**
4	Mkt3	120	**40%**
5	Total Mkt	300	**100%**

Tip: You enter the formula by clicking on the header for Column B and using the formula bar.

Pi

Pi is a mathematical function that returns the number 3.14159265358979, the mathematical constant, accurate to 15 digits. Pi is the ratio of the circumference of a circle to its diameter. The function syntax is:

`PI()`

Example:

The following example returns row 3 divided by the product of Pi and 2:

```
row[3] / (PI() * 2)
```

PlanningAnnotations

PlanningAnnotations is a text function that retrieves the critical notes or comments associated with a cell's PlanningUnit from the Planning Details database connection. PlanningUnits are a combination of Scenario, Version, and Entity and are derived in Financial Reporting through cell references in a grid.

The function syntaxes are:

<<PlanningAnnotations("GridName", Row, Column, Page, Attributes,Range**)>>**

<<PlanningAnnotations("GridName", Row, Column, Page, Attributes**)>>** (assumes "All" for Range paramter)

Examples

```
<<PlanningAnnotations("Grid Name", 1,a,1,All, All)>>
<<PlanningAnnotations("Grid Name", 100,AB,10,All, All)>>
<<PlanningAnnotations(cur, cur,a,cur,Text & Title & Author, Top 5)>>
<<PlanningAnnotations(cur, 315, AB, 255, Text&Title&Author, Top 5)>>
<<PlanningAnnotations(cur, cur A, Cur, PlanningUnit, Top 5)>>
<<PlanningAnnotations("cur, 123, ABC, 101, PlanningUnit, Top5)>>
<<PlanningAnnotations("Grid1, 1, current, cur, Title & Text, Bottom 10)>>
<<PlanningAnnotations("Grid1, 105, ABC, cur, Title & Text, Bottom 10)>>
<<PlanningAnnotations("Current", 34, BB, cur, "All", Top 40)>>
<<PlanningAnnotations(cur, cur, A cur, "Text & Title & Author", Top 5)>>
<<PlanningAnnotations(cur, cur, A, cur, "Text&Title&Author, "bottom15")>>
<<PlanningAnnotations(cur, 1(3), A(B), cur, Title&Author&Date&Text,
"All")>>
<<PlanningAnnotations(cur, 1(3), A(B), cur, "Title&Author&Date&Text,
"All")>>
```

The following table provides a summary of the PlanningAnnotations parameters.

Argument	Description
GridName	The name of a grid. `GridName` is a required parameter.
Row	A numeric value representing the row number of the grid. The first row in a grid has an index of 1, the second row has an index of 2, and so forth. `Row` is a required parameter.
Column	A letter representing the column of the grid. The first column in a grid has an index of A, the second column has an index of B, and so forth. `Column` is a required parameter.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of 1, the second page dimension has an index of 2, and so forth. `Page` is a required parameter.

Argument	Description
Attributes	The Attributes parameter may include any of the following values: All, Title, Author, Date, Text, PlanningUnit. PlanningUnit is the combination of scenario, version, and entity and is derived from the GridName, Row, column, and Page. The Attributes parameters may be rearranged in the preferred order of output. Each attribute must be separated with an ampersand (&).
Range	You can use the keywords All, Top, or Bottom. to select a certain number of annotations from the top or bottom of an output, or all annotations; for example: ● `All` returns all annotations ● `Top 5` returns the first five annotations ● `Bottom 10` returns the last ten annotations ● `Bottom 1` returns the last annotation

Example

For this example you retrieve annotation text that is in row 1, column A, of a grid which is on the current page. You want to display the bottom 3 annotations and all attributes associated with the annotation (title, author, date, text, and planning unit).

Note: If you know that your annotations span multiple pages, Hyperion recommends that you place the function in a text row on a grid, then select Adjust Row Height to Fit on the Row Properties sheet so the text can span multiple pages. This option is not available in a text object. When you use annotations in a text object, only the portion that fits on the page is printed. However, everything is included in HTML output.

● This syntax may be used in a text cell:

```
<<PlanningAnnotations(Current, 1, A, Current, All, Bottom 3)
```

Annotations are returned chronologically in descending order by date, with the most recent annotations on top and the oldest annotation on the bottom.

The resulting annotation text resembles the following example:

```
Title: Status - Under Review

Author: John Smith

Date: Mar 25, 2003 10:32:49 AM

Planning Unit: Budget, 1st Draft, East

Text: Please review and approve

————————————————————

Title: Status - Not Signed Off

Author: Mary Brown

Date: Mar 21, 2003 2:59:11 PM

Planning Unit: Budget, 1st Draft, West

Text: Sorry, Try Again
```

```
————————————————————
```

Title: Status - Under Review

Author: Admin

Date: Mar 21, 2003 2:54:16 PM

Planning Unit: Budget, 1st Draft, South

Text: Please review and approve budget for 1st draft

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see "Current / Cur Keyword" on page 210.

Specifying Demarcations Between Annotations

The default demarcation symbols that separate Planning Details unit annotations are a series of em dash characters (—). You can specify another demarcation symbol by configuring the `PUASeparator` in the `fr_repserver.properties` file.

Note: This change affects all reports that retrieve Planning Details unit annotations.

➤ To enter new demarcation symbols:

1 **Log off Financial Reporting.**

2 **Locate the** `fr_repserver.properties` **file and open it for editing; for example:**

   `C:\Hyperion\BIPlus\lib\fr_repserver.properties`

3 **Locate** `PUASeparator` **and repeat the number of demarcation symbols you want to use; for example:**

   PUASeparator= — — — — — — — — — — — — — — — — —

4 **Save and close the file.**

5 **Restart the Report Server service, then log on to Financial Reporting.**

ProcessManagementStatus

This function is available only with Financial Management as the database connection.

ProcessManagementStatus is a text function that returns the status of a cell in a Financial Management database connection. The possible process levels are Not Started, First Pass, Submitted, Approved, Published, Not Supported, Review Levels 1 through 10. You can use this function in a text box, a text cell, or a text row or column heading.

The function syntax is as follows:

<<ProcessManagementStatus("*GridName*", *Row*, *Col*, *Page*)**>>**

Argument	Description
GridName	The name of a Financial Management grid. This value must be enclosed in quotation marks
Row	Numeric value representing the row index of the grid. The first row in a grid has an index of 1, the second row has an index of 2, and so forth.
Col	A letter representing the column of the grid. The first column in a grid has an index of A, the second column has an index of B, and so forth.
Page	A numeric value representing the page dimension index of the grid. The first page dimension in a grid has an index of 1, the second page dimension has an index of 2, and so forth.

Example 1

The following syntax examples display the status for the cell that is in row 21, column B on page 1 of Grid1:

```
<<ProcessManagementStatus("Grid1",21,B,1)>>
```

```
<<ProcessManagementStatus(Current,21,B,1)>>
```

Example 1

The following syntax example, entered in the text column heading, displays the status for all cells in column B, on page 1 of the current grid:

```
<<ProcessManagementStatus(Current,Current,B,1)>>
```

Note: This function supports the Current keyword when used in a grid (not text box object). For information and examples, see "Current / Cur Keyword" on page 210.

Product

Product is a mathematical function that multiplies all numbers or references and returns the product. The function syntax is:

Product(*arguments*)

where *argument*s is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Product(2, 20) returns the value 40. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].property` For a definition of the syntax, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Example:

The following example returns 40:

```
Product(2,20)
```

Random

Random is a mathematical function that returns a random number between 0.0 and 1.0. The function syntax is:

```
Random()
```

Example:

The following example returns a random number between 0.0 and 1.0 and multiplies it by 1000:

```
Random() * 1000
```

Rank

Rank is a financial function that provides a rank value for a value in a specified range. The Rank function is processed by Financial Reporting and does not depend on the database connection. The function syntax is as follows:

Rank([Reference], Order)

Rank([Reference], Order, Unique)

Argument	Description
Reference	The range of cells, rows, or columns to rank, with letters identifying columns and numbers identifying rows. For example, specify [A,1:5] to rank the values for rows 1 through 5 in column A.
	You can use the .ifNN property with a range of cells to assign numbers to any cells with nonnumeric values so that those cells can be ranked. For example, you can use .ifNN(-1) to assign the value -1 to any cell with a missing value.
Order	Indicates the order by which the values are ranked. The lowest value ranked in ascending order receives a rank result of 1. The largest value ranked in descending order receives a rank result of 1. The order can be indicated by any of the following keywords or values:
	● Ascending
	● Descending
	● Asc
	● Des
	● Desc
	● 1 (the number 1 is the same as "ascending")
	● 0 (zero is the same as "descending")
	The keywords are not case-sensitive.
	Note: Do not enclose the number or keyword indicating order in quotation marks.

Argument	Description
Unique (optional)	Optional. A Boolean keyword indicating how to treat equal values in the Reference parameter where: ● **false** (or omitted) — equal values receive the same ranking ; ranked results may be duplicated ● **true** — equal values receive a unique ranking; there are no duplicate rankings. Values in the Reference parameter are ranked on a first come, first ranked basis. For example, if values in rows 2 and 5 are equal, the value in row 2 is ranked before that of row 5. For examples, see Example:.

Examples

This formula in column B ranks the values in rows 1 through 5 in column A in descending order:

```
Rank([A,1:5], descending)
```

The result might be as follows:

	East	Rank
Cola	16	2
Fruit Drinks	23	1
Beer	16	2
Diet	missing	missing
Root Beer	0	4

When two values are equal, they receive the same rank value. In the example above, Cola and Beer have the same value and therefore the same rank.

This formula in column B assigns the value of -1 to any nonnumeric value so it can be ranked:

```
Rank([A,1:5].ifNN(-1), descending)
```

In the following result, the missing value now has a rank of 5:

	East	Rank
Cola	16	2
Fruit Drinks	23	1
Beer	16	2
Diet	missing	5
Root Beer	0	4

Example:

The following example builds on the previous example explaining how the new "unique" parameter affects the results:

This formula in column B assigns the value of -1 to any nonnumeric value so it can be ranked, and also indicates that each ranking should be unique:

```
Rank([A,1:5].ifNN(-1), descending, true)
```

In the following result, the missing value now has a rank of 5, and Beer has a value of 3 (even though it has the same data value as Cola):

	East	Rank
Cola	16	2
Fruit Drinks	23	1
Beer	16	3
Diet	missing	5
Root Beer	0	4

ReportAuthor

ReportAuthor is a text function that returns the user name of the creator of the report. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

<<ReportAuthor()>>

Example:

The following example returns the name of the report author:

```
<<ReportAuthor()>>
```

ReportCreated

ReportCreated is a text function that returns the creation date of the current report. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

<<ReportCreated("*format*" **)>>**

where *format* is a list of characters that define the format of the date and time. For a detailed description of date and time formats see Table 37 on page 224.

Note: The date and time format is case-sensitive. ReportCreated returns a value only after the report is saved.

Example:

The following example inserts the report creation date in the body of a report:

<<ReportName()>> - Created on <<ReportCreated("d-MM-yy")>>

ReportDesc

ReportDesc is a text function that returns the text description of the current report. You can use this function in a text box, text cell, or a row or column heading. The report description is a report property. The function syntax is:

`<<ReportDesc()>>`

Example:

The following example inserts a report description in the body of a report:

<<ReportDesc()>>

Note: You can define a report description when you save the report. Afterward, you can change the description changed in the repository or when you save the report again with the Save As command.

ReportFolder

ReportFolder is a text function that returns the path of the folder where the report is located. You can use this function in a text box, text cell, or a row or column heading.

The function syntax is:

`<<Reportfolder()>>`

Example:

The following example inserts the path of the folder where the report is located:

<<Reportfolder( )>>

The following considerations provide additional information when using ReportFolder:

- The report must be located in a folder other than the root folder. The root folder is not considered a report folder and returns an empty string.

- The report must first be saved to a folder in order to return the correct string. An unsaved report returns an empty string.

- If you open a report containing a ReportFolder function, save it to a new folder, then Print Preview the report, the previous location of the folder is displayed. This is by design for performance reasons. To re-evaluate the report, modify a grid or report object, then Print Preview to see the new folder location.

ReportModified

ReportModified is a text function that returns the date the current report was last modified. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

`<<ReportModified("format")>>`

where *format* is a list of characters enclosed in quotes that define the format of the date and time. For a detailed description of date and time formats, see Table 37 on page 224.

Note: The date and time format is case-sensitive. ReportModified returns a value only after the report is saved.

Example:

The following example inserts the date Jan 19, 2002. That is the date the report was last modified:

```
Report Modified: <<ReportModified("MMM dd, yyyy")>>
```

ReportModifiedBy

ReportModifiedBy is a text function that returns the user name of the last user to save the report. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

```
<<ReportModifiedBy()>>
```

Example:

The following example inserts the user name of the last user to save the report:

```
<<ReportModifiedBy()>>
```

ReportName

ReportName is a text function that returns the name of the current report. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

```
<<ReportName()>>
```

Example:

The following example inserts the report name:

```
<<ReportName( )>>
```

ReportRunBy

ReportRunBy is a text function that returns the username of the user who is running the report. You can use this function in a text box, text cell, or a row or column heading. The function syntax is:

```
<<ReportRunBy()>>
```

Example:

The following example inserts the username of the user who is running the report:

```
<<ReportRunBy()>>
```

Round

Round is a mathematical function that rounds a number up or down by the specified digits. The function syntax is:

Round (*arg1*, *integer*)

where *arg1* is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Round(81.3987,3) returns the value 81.399. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Integer specifies the number of digits to which you want to round the number:

- If *integer* is greater than zero, the number rounds to the specified number of decimal places.
- If *integer* is zero, the number rounds to the nearest integer.
- If *integer* is less than zero, the number is rounded to the left of the decimal point.

Examples:

The following example rounds to 3 decimals:

```
Round(3594.5567,3) = 3594.557
```

The following example rounds to the nearest integer:

```
Round(3594.5567,0) = 3595
```

The following example rounds to the thousands. This is also known as scaling:

```
Round(3594.5567,-3) = 4000
```

Sqrt

Sqrt is a mathematical function that returns the square root of a numeric value, row, column, or cell. The syntax for the Sqrt function is:

```
Sqrt (argument)
```

where *argument* is expressed by one of the following arguments:

Argument	Description
numeric	A numeric value. For example, Sqrt(100) returns the value 10. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Example

The following example returns the value of 4:

```
Sqrt(16)
```

Sum

Sum is a mathematical function that returns the summation of a group of numeric values, rows, columns, or cells.

The syntax for the Sum function is:

Sum (arguments)

where *argument*s is expressed by one or more of the following arguments:

Argument	Description
numeric	A numeric value. For example, Sum(10, 20, 30) returns the value 60. Numeric values can include decimals and negative values. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

Examples:

The following example returns the value 30:

```
sum(10,20)
```

The following example returns the sum of three rows:

```
sum(row[1],row[6],row[8])
```

The following example calculates the sum of three aggregate columns:

```
sum(column[E], column[G], column[I])
```

The following example calculates the sum of two columns which are located on different grids:

```
sum(grid1.col[E],grid2.colmn[E])
```

Truncate / Trunc

Truncate is a mathematical function that removes the specified number of digits from numeric values.

Syntax:

```
Trunc (arg1, integer)
```

- where `arg1` is expressed by one of the following arguments:

Argument	Description
numeric	A numeric value. For example, 234.567. For a description of numeric arguments, see "Numeric Arguments" on page 204.
row, column, or cell reference	A pointer to a row, column, or cell within a grid. References can be specified in several ways. The reference syntax is: `GridName.GridElement[segment(range)].property` For more information, see "Row, Column, or Cell Reference Arguments" on page 204.
function	An embedded function. For a list of mathematical functions, see "Mathematical Functions" on page 202.

- where *integer* specifies the number of digits you want to remove:
  - ❍ A positive *integer* determines the number of significant digits that remain to the right of the decimal point.
  - ❍ A zero (0) *integer* returns the integer located to the left of the decimal point.
  - ❍ A negative *integer* indicates the number of significant digits that are truncated to the left of the decimal point.

Examples:

The following statement uses a positive integer of 2. The first two digits to the right of the decimal point remain, and the following digit is removed:

```
Trunc(234.567, 2) = 234.56
```

The following statement uses a zero (0) integer. All digits to the right of the decimal point are removed:

```
Trunc(234.567, 0) = 234
```

The following statement uses a negative integer of -2. All digits to the right of the decimal point are removed and the last 2 digits of the integer are truncated.

```
Trunc(234.567, -2) = 200
```

Note: Formatting previously applied to a cell, column, or row is maintained when you use the Trunc function. The following example shows the results of a Trunc function where the

cell value was previously formatted to display three decimal places: `Trunc(234.567, 0) = 234.000`

VariableValue

Used with SAP-BW, VariableValue provides information on what values are used for a SAP-BW variable response.

Syntax:

`<<VariableValue("GridName", "VariableName")>>`

where:

- "*GridName*" is the name of the Grid with an SAP-BW datasource. The "current" keyword is supported when the function is used inside of a grid (text cell and/or custom heading).

- "*VariableName*" is the name of the SAP-BW variable from which to obtain the return information.

Note: As with all text function, although the quotes are optional, they should be used when the variable name contains non-alphanumeric characters such as parenthesis or a comma.

Variance / Var

Variance is a financial function that evaluates the difference between the specified values based on account type for the current account. For example, for an Income, Flow, Asset, or Balance account, a positive result represents an increase, so the result appears as a positive number. For Expense or Liability accounts, a positive result represents a decrease, so the result appears as a negative number. This function is available for standard Oracle Essbase, Planning Details, and Financial Management database connections.

- For Oracle Essbase: You can use members of an Accounts type dimension that are tagged as Expense or Non Expense.

- For Planning Details: In addition to above (Oracle Essbase), you can use the following UDA (User Defined Attributes) Accounts types that are also defined as Asset, Liability, Equity, Revenue, and Expense.

- For Financial Management: You can use the following Accounts types: Asset, Liability, Income, Expense, Flow, Balance, and Balance Recurring.

Syntax:

`Var (reference1, reference2)`

- where *reference1* and *reference2* are references to a row, column, or cell that correspond to members of the same Account dimension whose variance results are to be calculated.

Expected Results Using Oracle Essbase

The following table describes the expected results when using the Variance function with Oracle Essbase Accounts type members tagged as Expense or Non Expense.

Table 40   Expected Results when Using the Variance Function

Column A	Column B	Var ([A] , [B])=0	Var ([A] , [B])>0	Var ([A] , [B])<0
Non Expense	Non Expense	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value

Expected Results Using Planning Details

The following table describes the expected results when using the Variance function with Planning Details Accounts tagged with the below UDAs.

Table 41   Expected Results when Using the Variance Function

Column A	Column B	Var ([A] , [B])=0	Var ([A] , [B])>0	Var ([A] , [B])<0
Asset	Asset	0	Returns a positive value	Returns a negative value
Liability	Liability	0	Returns a negative value	Returns a positive value
Equity	Equity	0	Returns a positive value	Returns a negative value
Revenue	Revenue	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value

Expected Results Using Financial Management

The following table describes the expected results when using the Variance function with Financial Management Accounts listed below.

Table 42   Expected Results when Using the Variance Function

Column A	Column B	Var ([A] , [B])=0	Var ([A] , [B])>0	Var ([A] , [B])<0
Asset	Asset	0	Returns a positive value	Returns a negative value
Liability	Liability	0	Returns a negative value	Returns a positive value
Income	Income	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value
Flow	Flow	0	Returns a positive value	Returns a negative value
Balance	Balance	0	Returns a positive value	Returns a negative value

Column A	Column B	Var ([A] , [B])=0	Var ([A] , [B])>0	Var ([A] , [B])<0
Balance Recurring	Balance Recurring	0	Returns a positive value	Returns a negative value

Variance Behavior

- The Variance function expects comparison of the same account type. When you compare two different account types, like Sales & Expense, the Variance function performs the straight math without applying the logic of the account type. For example:

Sales	Expense	Result
-400	100	-500

- In Oracle Essbase and Planning Details, when the Variance function is applied to a dimension that is not tagged as an Accounts type, an #error results at runtime.

- #missing is treated as zero (0), unless specified differently using the ifnonnumber property.

- #error results in #error, unless specified differently using the ifnonnumber property.

Examples

The Variance function accepts cell, column, or row references only. For more information, see "Row, Column, or Cell Reference Arguments" on page 204.

Syntax	Example
Sample syntax referencing a column:	Var ([A], [B])
Sample syntax referencing a row:	Var ([3], [4])
Sample syntax referencing a cell:	Var (Cell [3,A], [3,B])

In this example, the variance between column A (**Actual**) and column B (**Budget**) is calculated as follows:

```
Var([A],[B])
```

This example produces the following report:

```
                        Year    Product Market
                 Actual  Budget Variance
                 ======= ======= =======
Sales(Income)    400,855 373,080   27,775
COGS (Expense)   179,336 158,940  -20,396
```

See Also

VariancePercent / VarPer

VariancePercent / VarPer

VariancePercent is a financial function that evaluates the difference, in percent, between the specified values based on account type for the current account. For example, for an Income, Flow, Asset, or Balance account, a positive result represents an increase, so the result appears as a positive number. For Expense or Liability accounts, a positive result represents a decrease, so the result appears as a negative number. This function is available for standard Oracle Essbase, Planning Details, and Financial Management database connections.

- **For Oracle Essbase:** You can use members of an Accounts type dimension that are tagged as "Expense" or "Non Expense".

- **For Planning Details**: In addition to above (Oracle Essbase), you can use the following UDA (User Defined Attributes) Accounts types that are also defined as Asset, Liability, Equity, Revenue, and Expense.

- **For Financial Management:** You can use the following Accounts types: Asset, Liability Income, Expense, Flow, Balance, Balance Recurring.

Syntax:

```
VarPer (reference1, reference2)
```

- where *reference1* and *reference2* are references to a row, column, or cell that correspond to members of the same Account dimension whose VariancePercent results are to be calculated.

Expected Results Using Oracle Essbase

The following table describes the expected results when using the VariancePercent function with Oracle Essbase Accounts type members tagged as Expense or Non Expense.

Table 43   Expected results when using the VariancePercent function

Col A	Col B	VarPer ([A] , [B])=0	VarPer([A] , [B])>0	VarPer ([A] , [B])<0
Non Expense	Non Expense	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value

Expected Results Using Planning Details

The following table describes the expected results when using the VariancePercent function with Planning Details Accounts tagged with the below UDAs.

Table 44   Expected results when using the VariancePercent function

Col A	Col B	VarPer ([A] , [B])=0	VarPer ([A] , [B])>0	VaPer ([A] , [B])<0
Asset	Asset	0	Returns a positive value	Returns a negative value

Col A	Col B	VarPer ([A] , [B])=0	VarPer ([A] , [B])>0	VaPer ([A] , [B])<0
Liability	Liability	0	Returns a negative value	Returns a positive value
Equity	Equity	0	Returns a positive value	Returns a negative value
Revenue	Revenue	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value

Expected Results Using Financial Management

The following table describes the expected results when using the VariancePercent function with Financial Management Accounts listed below.

Table 45 Expected results when using the VariancePercent function

Col A	Col B	VarPer ([A] , [B])=0	VarPer ([A] , [B])>0	VarPer ([A] , [B])<0
Asset	Asset	0	Returns a positive value	Returns a negative value
Liability	Liability	0	Returns a negative value	Returns a positive value
Income	Income	0	Returns a positive value	Returns a negative value
Expense	Expense	0	Returns a negative value	Returns a positive value
Flow	Flow	0	Returns a positive value	Returns a negative value
Balance	Balance	0	Returns a positive value	Returns a negative value
Balance Recurring	Balance Recurring	0	Returns a positive value	Returns a negative value

VariancePercent Behavior

- The VariancePercent function expects comparison of the same account type. When you compare two different account types, like Sales & Expense, the VariancePercent function performs the straight math without applying the logic of the account type. For example:

Sales	Expense	Result
-400	100	-5.

- In Oracle Essbase and Planning Details, when the VariancePercent function is applied to a dimension that is not "Accounts" type, an #error results at runtime.

- #missing is treated as zero (0), unless specified differently using ifnonnumber property.

- #error is results in #error, unless specified differently using ifnonnumber property.

Examples:

The VariancePercent function accepts, cell, column, or row references only. For more information, see "Row, Column, or Cell Reference Arguments" on page 204

Syntax	Example
Sample syntax referencing a column:	VarPer ([A], [B])
Sample syntax referencing a row:	VarPer ([3], [4])
Sample syntax referencing a cell:	VarPer (Cell [3,A], [3,B])

In this example, the VariancePercent between column A (**Actual**) and column B (**Budget**) is calculated as follows:

```
VarPer([A],[B])
```

This example produces the following report:

```
                  Year Product Market
               Actual    Budget VariancePercent
               ======== ======== ========
Sales(Income)   400,855  373,080     7%
COGS (Expense)  179,336  158,940   -13%
```

xbrlUnit

xbrlUnit is a text function that returns information about an XBRL unit that has been defined within a grid. xbrlUnit is supported in a heading cell or text cell, but not in text objects. The function syntax are

```
<<xbrlUnit("InfoType")>>
```

<<**xbrlUnit**("*GridName*", *Column, Row, Page,* "*InfoType*")>>

where:

- *GridName* is the name of the Grid with XBRL metadata.

- *Column* is the column segment (design time) identifier within the grid.

- *Row* is the row segment (design time) identifier within the grid.

- *Page* is the page to be used within the grid. (This parameter is currently ignored because, presently, XBRL metadata can be assigned only within the two-dimensional grid basis (on a row or column). It is provided for future use and consistency with other text functions.)

- *InfoType* is one of the following values.

  - *entityIdentifier*

  - entityScheme

  - entitySegment

  - unit

- ❍ unit2
- ❍ unitOperation
- ❍ period
- ❍ cwa
- ❍ precision
- ❍ scenario

Note: The reference parameters will update when rows or columns are added or deleted from the grid.

Note: The "current" keyword is supported for the reference parameters ("GridName", Row, Column, and Page). However, it must be used within a grid's text cell and/or custom heading (not supported in text objects).

Example:

The following example inserts the unit description into the column heading for an XBRL unit:

```
<<xbrlUnit("unit")>>
```

xbrlContext

xbrlContext is a text function that returns the value of a specified XBRL context property. You can use this function only in a column heading or a text cell in the column that is set up with XBRL context. The function syntax is:

<<**xbrlContext**("*InfoType*")>>

<<**xbrlContext** ("*Gridname*", *Row*, *Column*, *Page*, *InfoType*")>>

where:

- *GridName* is the name of the Grid with XBRL metadata.
- *Column* is the column segment (design time) identifier within the grid.
- *Row* is the row segment (design time) identifier within the grid.
- *Page* is the page to be used within the grid. (This parameter is currently ignored because, presently, XBRL metadata can be assigned only within the two-dimensional grid basis (on a row or column). It is provided for future use and consistency with other text functions.)
- *InfoType* is one of the following values.
  - ❍ *entityIdentifier*
  - ❍ entityScheme
  - ❍ entitySegment
  - ❍ unit

- ❍ unit2
- ❍ unitOperation
- ❍ period
- ❍ cwa
- ❍ precision
- ❍ scenario

Note: The reference parameters will update when rows or columns are added or deleted from the grid.

Note: The "current" keyword is supported for the reference parameters ("GridName", Row, Column, and Page). However, it must be used within a grid's text cell and/or custom heading (not supported in text objects).

Example: The following example inserts the unit description into the column heading for an XBRL context:

```
<<xbrlContext("unit")>>
```

xbrlLineItem

xbrlLIneItem is a text function that returns the value of a specified XBRL line item property. You can use this function only in a row heading or a text cell in the row that is defined with an XBRL line item. The function syntax is:

```
<<xbrlLineItem("InfoType")>>
```

xbrlLineItem("*GridName*", *Row*, *Column*, *Page*, "*InfoType*")>>

where:

- *GridName* is the name of the Grid with XBRL metadata.
- *Row* is the row segment (design time) identifier within the grid.
- *Column* is the column segment (design time) identifier within the grid.
- *Page* is the page to be used within the grid. (This parameter is currently ignored because, presently, XBRL metadata can be assigned only within the two-dimensional grid basis (on a row or column). It is provided for future use and consistency with other text functions.)
- InfoType is one of the following values:
  - ❍ *name*
  - ❍ schemaNamespace
  - ❍ schemaLabel
  - ❍ schemaShortName

❍ schemaLocalLocation

❍ label

Note: The reference parameters will update when rows or columns are added or deleted from the grid.

Note: The "current" keyword is supported for the reference parameters ("GridName", Row, Column, and Page). However, it must be used within a grid's text cell and/or custom heading (not supported in text objects).

Example:

The following example inserts the schema name into the row heading for an XBRL line item:

```
<<xbrlContext("schemaNamespace")>>
```

Mathematical Operators in Expressions

Operators are symbols that perform arithmetical tasks or comparisons, or refer to ranges of columns, rows, or cells. You use operators in formulas that perform calculations on data rows or columns.

The following table explains the types of operators available in standard formulas:

Table 46   Operators

Type	Operator	Description	Example
Arithmetical	+	Adds	The following row formula adds the values in rows 4 and 5: `[4] + [5]`. A space is needed after + . ● Incorrect: 5+4 ● Correct: 5+ 4 ● Correct: 5+ -4
Arithmetical	-	Subtracts	The following row formula subtracts 3 from the values in row 4: `[4]- 3`. A space is needed after - . ● Incorrect: 5-4 ● Correct: 5 - 4 ● Correct: 5 - -4
Arithmetical	*	Multiplies	The following row formula multiplies the absolute values in row 4 by 150: `Abs([4])* 150`

Type	Operator	Description	Example
Arithmetical	/	Divides	The following row formula divides the values in row 4 by the values in row 5: `[4] / [5]`
Arithmetical	%	Percentage	The following row formula adds the values in row 4 and multiplies it by .10: `row[4].Sum*10%`
Arithmetical	^	Exponential	The following row formula returns the sixth exponent of row 4:`[4]^6`
Arithmetical	Decimal	Decimal number	The following row formula multiplies the values in row 4 by 5.67: `[4] * 5.67`
Reference	[]	Specifies a row, column, or cell in a grid. Use numbers for rows and letters for columns.	The following row formula adds the values in rows 4 and 12: `Sum ([4],[12])`
Unary minus	-	Changes the sign of a value	The following column expression divides the values in column 4 by 12 and changes the sign of the result: *-([4] / 12)*

Tip: Use the Eval function to perform arithmetic operations as part of a function parameter. For more information on the mathematical function Eval, see "Eval" on page 227.

Natural precedence determines the order the system follows for carrying out operations in an expression with multiple operators. For more information, see "Natural Precedence" on page 270.

Mathematical Operands in Expressions

Operands specify the values that an operator uses to produce a result. The following table explains the types of operands supported in Financial Reporting.

Table 47   Operands

Type of Operand	Examples
Literal	3, 0.0, 27.5, 65.334, -841
Row or column reference number	[1], [4], [8], [A], [C:D]
Cell reference number	[2, E], [E, 2] **Note:** This cell reference addresses row 2 column E.
Functions	Average, Min, Max

Type of Operand	Examples
Scoping	Grid1.row[3]

In the following row formula, which multiplies the values in row 3 by 100, the row reference [3] and 100 are both operands:

```
[3] * 100
```

Natural Precedence

If a standard formula has two or more operators, the system performs the operations in the order of the operators' natural precedence.

➤ The order of natural precedence that the system follows for performing operations in an expression that has multiple operators is as follows:

1 Unary minus (-# where # is any number)

   Note: Do not add a space after the unary minus operator.

2 Multiplication (*) and division (/)

3 Subtraction (- #) and addition (+ # where # is any number)

   Note: Add a space after the subtraction and addition operator.

For example, suppose a standard row formula uses this expression:

```
[10] + 3 * 4
```

In this example, if row 10 has a value of 8, the above expression produces a value of 20 for that column by calculating 3 * 4 + 8 = 20, following the order of natural precedence.

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Managing the Explore Repository

Reporting Studio has some of the same functionality as Workspace. The repository stores Financial Reporting objects (reports, snapshots, grids, charts, image objects, text object, row and row and column templates). You can also print and print preview reports and sort items by clicking a column field header.

Items saved to the repository can be used multiple times. For example, you can use a report as a basis for designing another report, or you can use a report object, such as an image object, in several reports.

To access the all available functionality in Workspace, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

This chapter contains the following topics:

Creating Folders

You create and use folders to help organize items in the repository. You can add folders at multiple levels while in the repository or while saving reports and report objects. When a user adds an object in the repository, by default only that user and an administrator can access the object.

To allow other users to see an object, the originator or an administrator must assign access to other users or groups in Workspace. You must have Report Designer or Global Administrator rights to create a folder.

➤ To create folders in the repository:

1 **Launch Financial Reporting.**

The repository is displayed.

2 **Click the location within the repository where you want the folder to reside.**

3 **Select File , thenNew, then Folder. The default folder name is titled New Folder.**

4 **Enter a folder name in the Enter New Folder Name text box. You can use uppercase and lowercase letters, numbers, and spaces.**

5 **Press OK to activate the folder.**

Duplicating Objects in the Repository

Use Workspace to duplicate objects in the repository. For detailed information, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

Filtering Report Objects

You can filter repository objects including reports, snapshots, and saved report objects to help you easily locate an object. You filter report objects by the type of object you seek. The system searches all folders in the repository for matching object types and displays them, by folder, in a tree hierarchy. A variety of filter combinations is provided for filtering.

➤ To sort by object types:

1 **Select View, then Display Items of Type.**

2 **Select an object type (All Items, Report, Snapshot, Book, Snapshot Book, Batch, or Saved Report Object) to display in the repository.**

3 **Optional: Repeat steps 1 and 2 to select additional object types.**

➤ To redisplay all object types in the repository, select **View**, then **Display Items of Type**, then**All Items**.

You can also sort objects by clicking the column headings. For example, you can display the oldest or newest reports first by clicking the Modified heading, or display report objects alphabetically by clicking the Name heading.

Cutting, Copying, and Pasting in the Repository

In Workspace, you can use the cut-and-paste feature to move report objects between different folders in the repository. Your ability to cut and paste depends on your access privileges. For detailed information, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

Managing Database Connections

The Database Connection Manager is in Workspace. It provides a means to manage reports, books, snapshots, snapshot books, saved reports objects (row/column templates, grids), batches, and scheduled batches. Reports and report objects can be moved from a development environment to a production environment, or between production servers.

Use Workspace to manage the database connections. For detailed information on adding, editing, and deleting database connections, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Exporting Repository Objects and Report Objects

In Workspace Explore, you can export saved objects, report objects and folders to a specific directory on your computer. During export, you can specify the format of the objects you are exporting. For information on exporting objects and report objects, see the *Oracle Enterprise Performance Management Workspace User's Guide*.

Importing Report Objects into the Repository

In Workspace Explore, you can import objects, reports, folders and zipped files previously exported to a file system. For detailed information on importing objects, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Sending Links to Reports Through E-Mail

Using Workspace Explore, you can use the e-mail Link feature to send a URL link of objects or folders through e-mail. The link can be opened in Workspace by a Financial Reporting user. While sending an e-mail, you can also add and store a list of frequently used e-mail addresses. For detailed information on sending links to reports through e-mail, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Deleting Items from the Repository

You delete items from the repository when no longer needed. You can permanently delete any items to which you have access privileges.

➤ To delete items from the repository:

1 From the repository list, select the items to delete.

> **Tip:** You can filter the repository by selecting **View**. then **Display Items of Type**. Select any of the following types: Report, Snapshot, or Saved Report Object.

> **Tip:** Press Shift to select multiple, consecutive items in the repository. Press Ctrl to select multiple, nonconsecutive items in the repository.

2 Select **Edit**, then **Delete**.

3 Click **Yes** to confirm the deletion.

> **Note:** Before deleting a folder, you must delete all objects contained inside. You cannot delete a folder containing hidden objects due to insufficient security privileges.

Changing the Database Connection for Reports and Report Objects in the Repository

Using Workspace, you can change the database connection for reports and books in the repository. You may want to change the database connection when moving from a development environment server to a production environment server. For information on changing database connections, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Changing a Report Database Connection

When changing a report from a Oracle Essbase database connection to a Planning Details database connection or vice versa, there are several restrictions because the data source reference is the only change. There is no conversion.

● For a list of considerations to follow when changing the database connection from Oracle Essbase to Planning Details for a report, see *Oracle Enterprise Performance Management Workspace User's Guide*.

● For a list of considerations to follow when changing the database connection from Planning Details to Oracle Essbase, see *Oracle Enterprise Performance Management Workspace User's Guide*.

Managing Security for Objects in the Repository

Using Workspace, you can apply security to objects (reports, snapshot reports, books, snapshot books, and batches), folders, and report objects (chart objects, grid objects, text objects, grids, image objects, and graphics) in the repository. Objects, folders, and report objects are secured by restricting or allowing access privileges for certain users and groups. As a result, only certain

designers or viewers can view objects in the repository from Financial Reporting. The roles and permissions that an administrator assigns to a user or group determine if access privileges are restricted in the repository. For more information on assigning roles and access privileges, see *Oracle Enterprise Performance Management Workspace User's Guide.*

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Using Batch Processing

Using Workspace, you can create, edit, and save batches if you have Administrator or Designer rights. Batches can also be scheduled, with full Batch Scheduler capability. You use batches to group and process sets of reports or books. You can send the output generated by running a batch to a printer or to the repository, and you can export both as HTML and PDF files. You can also e-mail users the exported output.

You can define and save batches in the Batch Editor and copy and delete batches in the repository. Deleting a batch from the repository requires access rights to the batch. By default, only the scheduling user is assigned access rights to snapshots and snapshot books that are saved to the repository. Having access rights to a batch, you can run every report in the batch when scheduled. The scheduling user can assign access to other users and groups at the time of scheduling.

Batches have a batch POV, which you can modify while scheduling. You can also specify prompt information for the batch. The specified POV and prompt information provides values for the POV and prompts specified for each book and report contained in the batch. You can schedule batches for processing immediately or at a later time.

For complete information on batch processing, see *Oracle Enterprise Performance Management Workspace User's Guide*.

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XBRL in Financial Reporting

XBRL (eXtensible Business Reporting Language) functionality in Financial Reporting enables you to create XBRL instance documents. The designer can take a report, attach XBRL metadata, then export the report as an instance document. XBRL Instance documents can be created using Financial Management, Oracle Hyperion Planning, Fusion Edition, SAP BW, or Oracle Essbase data sources.

XBRL is an XML-based (eXtensible Markup Language) framework that provides the business community with a standards-based method to prepare, publish in a variety of formats, reliably extract, and automatically exchange financial statements.

For additional information relating to XBRL, see the XBRL International Web site (http://www.xbrl.org).

Note: The functionality in this release supports the XBRL 2.1 specifications. Therefore, when a report is opened using a XBRL 2.0 schema, the unsupported metadata must be removed. If you choose this option, you must map line items that point to the 2.1 schema, create context and units as required in the new release. If you do not wish to remove the metadata, you can close the report.

XBRL Terms

The following list of terms may be useful to an administrator who wishes to know more about XBRL.

- XBRL specification—Defines what XBRL is and how to build taxonomies and instance documents. The specification uses technical terms and is meant for a technical audience.

- XBRL taxonomy—A set of XML schemas and XML Linking compliant linkbases that, taken together, define the syntax and semantics of XML elements corresponding to concepts about which facts can be expressed in XBRL instance documents. For example, a taxonomy may define the concept Net Profit as having certain relationships to other concepts (such as being the difference between Revenue and Expenses) and that a fact about it, such as "it has the value of 2,450,321 US Dollars correct to 7 significant figures, for the period from 1st January 2003 to 31st December 2003, for the US division of company XYZ", is expressed in an XBRL instance using the XML element "<netProfit>.

- XBRL element—An XML element that is used to express a concept in an XBRL instance document. The syntax and semantics of XBRL elements are defined by XBRL taxonomies.

- Instance document—An XML document, containing a set of XBRL elements, that expresses a set of facts that may constitute one or more business reports. For example, the financial statements of Hyperion Solutions, expressed in XBRL, would be an instance document.

- XML—Markup language for documents containing structural information. XML provides for richly-structured documents that can be used on the Web.

Setting Up Financial Reporting for XBRL

The following topics guide you through the process of setting up to use XBRL.

Note: If you are using XBRL for the first time, Hyperion recommends that you follow the procedures in the chronological order outlined in this chapter.

Enabling XBRL

To use the XBRL functionality in Financial Reporting, XBRL functionality must be enabled through Reporting Studio Preferences in Workspace. See *Oracle Enterprise Performance Management Architect Administrator's Guide*.

Downloading XBRL taxonomies to the XBRL directory

You can choose from numerous taxonomies to download. The official XBRL site (http://www.xbrl.org) can provide assistance with your selections.

Note: An XBRL taxonomy can consist of one or more files. All related files must be downloaded.

➤ To download the XBRL taxonomies:

1 Right-click the taxonomy, then click **Save Target As or Open.**

2 Copy the files to the `xbrlfiles` directory on the Financial Reporting server; for example, `C:...\BIPlus\common\xbrlfiles`.

Note: You must have write privileges to the HR Server computer.

Tip: You can create a separate user-defined folder in the `xbrlfiles` directory for each taxonomy you download.

3 Unzip the ZIP file within the `xbrlfiles` directory. Be sure to retain any relative directory structure that is present in the zip file to retain any relative references that might be present in the files constituting the taxonomy.

4 You are now ready to update the XBRL schema registration. Continue to the next topic, "Managing the XBRL Schema" on page 281, for instructions.

Using XBRL Management

Use **XBRL Management** in the Designer to update manage the XBRL schema, and define XBRL contexts and units for a report.

Managing the XBRL Schema

An XBRL taxonomy contains one or more schemas that define the line items or elements that can be contained in an instance document. After you add or remove XBRL taxonomies in the `xbrlfiles` directory, you must update the registration of the schemas. (For information on downloading the XBRL taxonomies, see "Downloading XBRL taxonomies to the XBRL directory" on page 280.)

Some noteworthy information that may affect the outcome of your instance report:

● The taxonomy must exist in the `xbrlfiles` directory on the Report Server before you can update the list of schemas.

● The taxonomy must exist in the `xbrlfiles` directory in order to export an instance document. For example, if you add the us-gaap-basi-2005-02-28 taxonomy to the `xbrlfiles` directory, update the schema registration, then create an XBRL report with that schema / taxonomy, you can create an instance report. However, if you remove the us-gaap-basi-2005-02-28 taxonomy from the `xbrlfiles` directory the instance document cannot be exported.

● When you open a report with XBRL line items defined in the report, the dependent taxonomies must be registered on the Report Server. If the taxonomy does not exist or is not registered, an error message informs the designer regarding the missing or unregistered taxonomies, and the report does not open.

● XBRL functionality exists for reports in Reporting Studio only. Reports, containing XBRL taxonomies can be imported into Workspace. However, taxonomy information is bypassed and XBRL functions are disabled.

The following topics describe tasks that can be performed with managing the XBRL schema:

● "Updating Schema Registration" on page 282

● "XBRL Terms" on page 279

Updating Schema Registration

When you initially set up XBRL in Reporting Studio, you must update the schema registration. After the update, you only must update when adding or deleting schemas / taxonomies from the `xbrlfiles` directory.

The schema registration should be a reflection of the schemas stored in the `xbrlfiles` directory. Therefore, whenever a schema is added or removed from the `xbrlfiles` directory on the Report Server, the schema registration should be updated.

➤ To update schema registration:

1 Log on to Reporting Studio.

2 Select **File**, then **New**, then **Report**.

3 Confirm that you added the desired taxonomy to the `xbrlfiles` directory on the Report Server.

4 Select **Task**, then **XBRL Management**, then **Schema Manager**. The **Manage Schemas** dialog box is empty if no registered schemas have been updated.
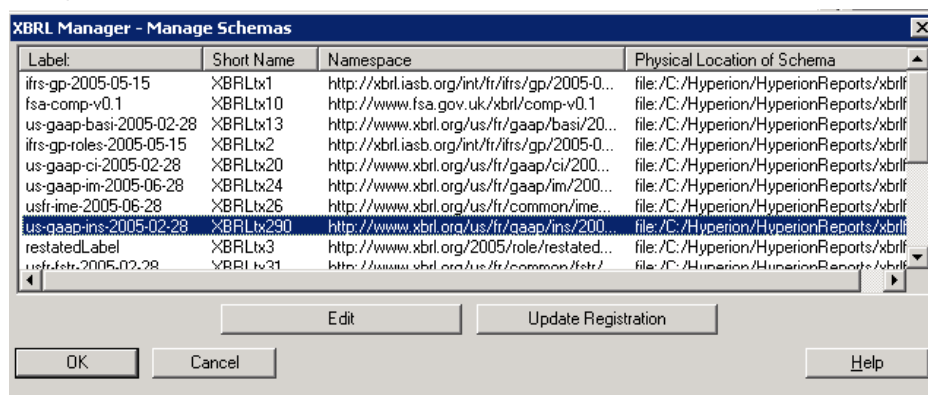
5 Click **Update Registration**. If new taxonomies are added to the `xbrlfiles` directory, a list of registrations are displayed in the top list box.

6 Click **OK** to update the list of schema registrations.

Note: Some taxonomies import multiple schema. All schema registrations associated with a taxonomy are updated at this time.

Note: All columns in the XBRL Schema Manager dialog box can be sorted by clicking on the header column.

Maintaining Schema Registration

Whenever you add or delete a taxonomy in the `xbrlfiles` directory on the Reports Server, you must update your schema registration so that your instance document does not fail upon export.

➤ To maintain schema registration:

1 After you add or delete a taxonomy in the `xbrlfiles` directory, log on to Reporting Studio.

2 Select **File**, then **New**, then **Report.**

3 Select **Task**, then **XBRL Management**, then **Schema Manager.XBRL Manager - Manage Schemas** is displayed.

4 Click **Update Registration.**

   ● If you added a taxonomy to the `xbrlfiles` directory, the registration schemas are listed in **Registrations to be Added.**

   ● If you deleted a taxonomy from the `xbrlfiles` directory, the registration schemas are listed in **Registrations to be Deleted.**

5 Click **OK** to update the registration of schemas.

Editing Labels and Short Names on Schemas

You can change the label and short name of the updated schema registrations to more meaningful descriptions. A modified label provides easier name recognition when you select a schema to assign XBRL line items to rows.

➤ To edit a schema label and short name:

1 Log on to Reporting Studio.

2 Select **File**, then **New**, then **Report.**

3 From the Reporting Studio designer, select **Task**, then **XBRL Management**, then **Schema Manager. XBRL Manager - Manage Schemas** is displayed.

4 Select a schema, then click **Edit**.

5 In **Edit Schema**, enter a brief description in **Label** and **Short Name.**

In the following example, **Short Name** text is changed to ci. The display-only field Namespace displays the property of the taxonomy, and Physical Location of Schema displays the location of the schema.

Behavior of Reports Using Unregistered XBRL Taxonomies

The following behavior is expected in reports when XBRL taxonomies are not registered in the Report Server.

● During import, the user is not notified that the report contains XBRL links to unregistered taxonomies. However, the report will import successfully and the Financial ReportingWeb log will document the unregistered taxonomies.

● After the imported report is saved, the links to the unregistered taxonomies remain in the report definition. Any line item mappings associated with the unregistered taxonomies remain in the report definition.

- Web preview of the report will be normal. If the report contains teh XbrlLineItem function which points to any line items with unregistered taxonomies, the function will return an error.

- When the report is opened in Reporting Studio, the designer receives an error message, which will show until the appropriate taxonomies are registered. The error message lists all the unregistered taxonomies within the report definition.

- The report design continueto show all line item links to an unregistered taxonomy. You can override those links by remapping them to an existing taxonomy, if desired.

- When the missing taxonomies are downloaded and registered, the report can be opened in Reporting Studio and the previously unregistered XBRL line items are enabled.

Managing XBRL Context

Use the XBRL Context Manager to create reusable definitions of XBRL contexts that can be assigned to columns, cells, and text objects in any financial report and by any Reporting Studio user.

XBRL requires that each piece of data in an instance document be associated with a line item, and each XBRL numeric fact must refer to context and unit. (For information on unit, see "Managing XBRL Units" on page 286.)

XBRL context includes information about the entity, period, and scenario (optional). Context settings are informational only and do not get calculated. You can specify context for a column or specific cells in a column of a text object. Context settings are static settings that do not change when the member selection changes. Types of context information includes:

- Entity—Information about the organization for which the instance document is prepared.
- Period—Options for setting the start date and end date.
- Scenario—Information on the type of data, such as Actual or Budget.

Defining the XBRL Context

Context can be defined once and used throughout any financial report. Contexts are saved within the report; not globally in the repository. Using the Context Manager, Contexts can be created, edited or deleted.

➤ To define XBRL Context

1 Select **Task**, then **XBRL Management**, then **Context Manager**.

2 In **XBRL Manager - Manage Context**, click **New**.

    XBRL Manager - **Context Setup** is displayed, containing the **Entity**, **Period**, and **Scenario** tabs.

3 in **Name**, enter a descriptive label for the context.

4 On the **Entity** tab, perform the following actions:

    a.   In **Identifier**, enter an identifier that conforms to the **Scheme/Reference** field.

b. In **Scheme/Reference**, enter a URI according to XML schema. For example, a US firm registered with SEC would be *www.sec.gov*.

c. **Optional:** If the instance document refers to a specific segment of the entity, (such as the ABC is a subsidiary of the entity XYZ), then select the **Include Segment Information** check box, and enter the Namespace URI and label for the segment.

> **Note:** XBRL specifications mandate that you must provide the declared namespace within your XML in order for the instance document to be valid. The namespace should be entered in the folllowing format: prefix="http://www/uri/org/etc". You must enter valid XML that conforms to XBRL specification.to describe the entity segment. For information on XBRL specifications, see the XBRL International Web Site (http://www.xbrl.org).

5   Select the **Period** tab, then select one of the following time periods:

- To specify one point in time, select **Instant**, then select a date from the calendar.

- To specify a range of dates, select **Start Date, End Date**, then select an inclusive start date and an inclusive end date from the calendar.

> **Tip:** To change the calendar month, click the right arrow to move the calendar month forward; click the left arrow to move the calender month backward, or click the calender month and select a new month. To change the year, click the calendar year, then click the up or down button to move the calendar year forward or backward, respectively.

- To indicate no date restrictions, select **Forever**.

> **Note:** This option is rarely used. It is intended for the possibility that one might want to report the values of certain constants like pi or e or the speed of light.

6   Select the **Scenario** tab, then perform the following actions:

You can describe the type of data for the Scenario element. Use XML to describe the scenario.

Select **Specify Scenario from the Schema**, then type the scenario in XML.

> **Note:** XBRL specifications mandate that you must provide the declared namespace within your XML in order for the instance document to be valid. The namespace should be entered in the folllowing format: prefix="http://www/uri/org/etc". You must enter valid XML that conforms to XBRL specification.to describe the entity segment. For information on XBRL specifications, see the XBRL International Web Site (http://www.xbrl.org).

7   Click **OK**. The Context record is stored as a line item in **XBRL Manager - Manage Context**.

8   Click **Close**.

Assigning XBRL Context

You can set XBRL Context on columns, cells in a column, and text objects.

Note: XBRL Context in a text object is used to define an XBRL Fact. An XBRL fact includes a line item and XBRL Context.

➤ To set XBRL Context:

1 Open a report for which you want to create an XBRL instance document.

2 Select a column, cells in a column or text object.

Note: When you create a cell-based context, you must select cells within one column only.

3 Select **XBRL Context** located on the property sheet.

4 Select an XBRL Context from the drop-down list; to create a new XBRL Context, click 🔲.

Note: The XBRL context you assigned to a column may not be true for all cells in that column. If this is the case, you can modify the context of individual cells. For example, if the context for a column is labeled as January, but a number of those cells are for a different month, you can change the setting of those cells. Use the above procedures to modify specific cells in a column.

Removing XBRL Context

You can remove XBRL context from a columns or cells that you want to exclude from the instance report.

➤ To remove XBRL context:

1 Open a report that contains columns or cells that were previously defined with XBRL context.

2 Select a column or cell that is defined with XBRL context.

3 In the property sheet, deselect **XBRL Context**. Click **Yes** to confirm.

Note: When you remove context from a report, any dependent line items become disassociated with that context. The report needs at least one context assigned to grid or text data in order to generate a valid instance document.

Managing XBRL Units

Use the XBRL Unit Manager to create reusable definitions of simple and compound unit of measures that can be assigned to grids, columns, and cells in any financial report and by any Reporting Studio user. The compound unit of measure enables you to specify a multiplication or division operator, and then two units; remember that this is only a description.

XBRL requires that each piece of numeric data in an instance document be associated with a line item, and each XBRL fact must refer to context and unit. For information on context, see "Managing XBRL Context" on page 284.

For the most part, all of the numerical facts on a grid will be in the same units. However, you can override the grid settings and define XBRL units at the cell level to formula cells and data cells.

➤ To add XBRL Units

1 Select **Task**, then **XBRL Management**, then **Units Manager**.

2 In **XBRL Manager - Manage Units**, click **New** to display **XBRL Manager - Unit Setup**.

Assigning XBRL Units

You can set XBRL Units on grids, columns, and cells in a column. The XBRL Units you assigned to a grid may not be true for all columns or cells. If this is the case, you can modify the units of individual columns or cells. For example, if the unit for a grid is labeled as Monetary USD, but a number of those columns or cells are Non-Monetary/Shares, you can change the setting in those areas. Select a column or cell you want to change, and use the following procedures to modify their unit assignment.

➤ To set XBRL Units:

1 Open a report for which you want to create an XBRL instance document.

2 Select a grid, columns, or cells.

3 Select **XBRL Unit** located on the property sheet (to create a new XBRL Unit, click .)

4 Select an XBRL Unit from the drop-down list.

Assigning XBRL Line Items to Rows

After you complete the setup of XBRL and define the context and units, you can begin assigning XBRL line items to data within a report. You can define one value per line item. If a line item is mapped to a row which contains multiple members, as in children, the values in that row are summed and assigned to that line item.

Note: When instance documents are generated, numeric values mapped to XBRL line items are saved with their "raw" data values. Any formatting or rounding is removed from numeric values. As such, the XBRL "precision" attribute for numeric line items is always set to the value "INF". This means that the number mapped to the line item is the exact value shown in the instance document (no rounding). If values stored in a data source are already rounded (for example, the stored value of 250 may actually be 250,000), it may be necessary to manually adjust the precision attribute in the resulting XML file after an instance document is created. For more information regarding the precision attribute please refer to the XBRL 2.1 specification.

➤ To assign XBRL line items to rows:

1 Open a report that is set up for XBRL.

- For information, on setting up Reporting Studio for XBRL, see "Setting Up Financial Reporting for XBRL" on page 280.

- For information on defining the context, see "Managing XBRL Context" on page 284.

- For information on defining units, see "Managing XBRL Units" on page 286.

2 Select a data or formula row. In the following example, data row 3 is selected:

3 In the Row Properties sheet, select XBRL Line Item, then click 🔲 to display XBRL Manager - Line Item Setup.

4 In Schema, select the schema.

The selected schema is displayed in the Schema drop-down, and the nodes from that schema are displayed below. In the following example, the fsa-rag9-v0.1 schema is selected. Note that in **Name of Selected Line Item**, XBRLtx9:RR0572 is the short name that was entered when the schema was registered.
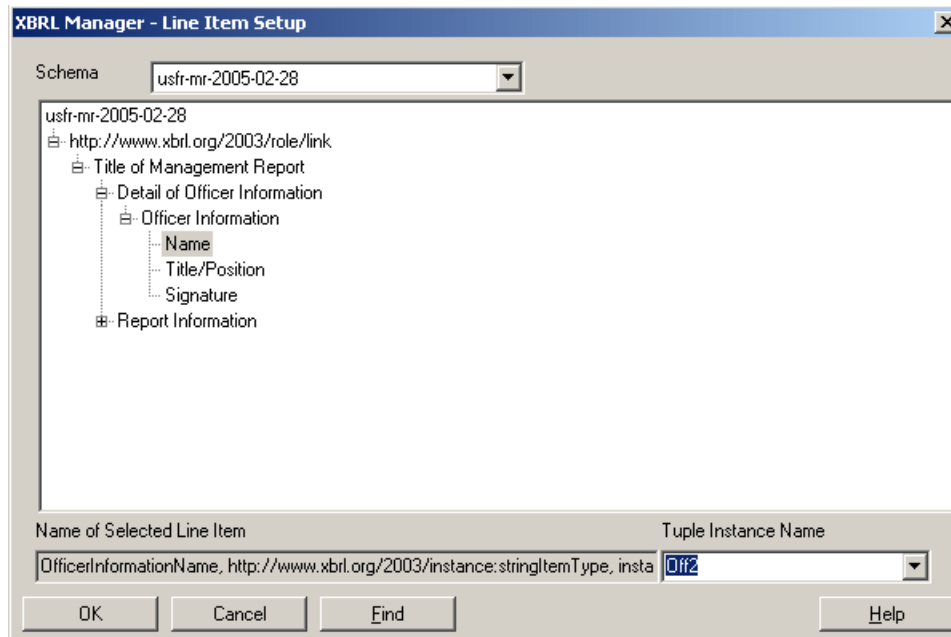
5 Open the nodes by clicking on the plus (+) button to locate the XBRL line item that matches the selected Reporting Studio line item. In this example, **SECTION I: Supplementary product sales data...** is selected.

> **Note:** To search for a line item, click **Find** to display the **Find** dialog box, enter the line item text and click **Find Next**. For information on using **Find**, see "Using the Find Feature in XBRL Line Item Setup" on page 289.

6 in **Tuple Instance Name**, enter a tuple instance name for this line item.

7 Click **OK** to accept the line item.

> **Note:** the Find feature searches the text shown in Line Item Setup as well as the equivialent technical XBRL name of the line item as documented on the selected taxonomy. This means that you can search on the item's taxonomy name as well as its presented label name shown in Line Item Setup. For example, in the "us-gaap-ci" taxonomy, the "Taxes" line item is displayed Line Item Setup. However, its XBRL name in the taxonomy is "CashFlowOperationsDirect:usfr-pte_TaxesPaid". You can type "TaxesPaid" in the find dialog, and the item "Taxes" will match.

Using the Find Feature in XBRL Line Item Setup

You can search for a specific line item within the Line Item Setup dialog by using the Find feature. The Find feature enables you to enter criteria to search for a line item within the current schema. To aid in your search, you can include wildcard symbols. Other search features include the ability to navigate up or down in the list, match whole words only, and match case.
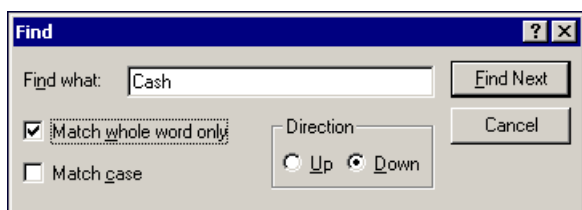
Using Wildcards in Searches

Wildcards provide a versatile way to find items that contain a specific text pattern. This is useful, for example, if you search for a line item that contains specific text within beginning and end of its name.

The Find feature supports the following wildcard characters:

Table 48   Wildcard Characters

Wildcard	Description
?	Use to match any single character.
*	Use to match zero or multiple characters. For example, when you search for "sale*", the search matches "Sales" and "Sale". This is because with the *, there can be zero or more characters after the word "sale".
	The default search uses the * wildcard. For example, when you enter "cash" as the criteria, it is equivalent to typing "*cash*" which finds "Restricted Cash", "Cash Equivalents", "Cash", and "Noncash Expenses". The word "cash" appears within each matched item.
#	Use to match any single number (0-9)
[*list*]	Use to match any single character within a specified list of characters. This wildcard allows you to specify specific characters to use as wildcards. For example, [aeiou] uses all of the letters within the brackets as a single wildcard character.
	The "-" character may also be used to indicate a range, such as [A-Z] or [0-9]
	If you want to use the "-" as part of the list, enter it at the beginning of the list. For example, [-@&\] uses the characters with the brackets as the wildcard characters.
[*!list*]	Use to match any single character not found within specified *list* of characters.
	The "-" character may also be used to indicate a range, such as [!A-Z] or [!0-9]

Wildcards can be used anywhere within the search string in the Find what text box. For example entering "cash*and" finds all line items that contain the words "cash" followed by "and", such as "Cash and Equivalents", "Cash from Sale of Goods and Services" and "Noncash Investing and Financing Activities".

Tip: If you want to search for a line item that begins or ends with specific text, check the Match whole word only option and use the "*" wildcard. For example, with the Match whole word only option on, if you enter "cash*" as the criterion, only line items that start with the word "cash" is found. For example, "Cash and Equivalents" is found, but not "Noncash Investments". Similarly, if you enter "*cash", only line items that end with the word cash is found. For example, "Restricted Cash" is found, but not "Cash and Equivalents".

Examples Using Wildcards

The examples below provide additional details on how wildcard characters may be used. All examples assume the **Match whole word only** option is not selected.

Table 49   Examples Using Wildcards

Criteria	Result
cash	Finds all occurrences of items with the word "cash".
federal*tax	Finds all occurrences of items with the words "federal", followed by "tax", such as "Federal Current Tax Expense" and "Deferred Federal Income Tax".
gain*sale*invest	Finds all occurrences of items with the word "gain" followed by "sale" and "invest", such as "Realized Gains on Sale of Investments".
Form ##-K	Finds all occurrences of items with the word "Form " followed by two numeric values and then "-K", such as "Annual Report on Form 10-K" or "Annual Report on Form 10-KSB".
Form ##-[KFQ]	Finds all occurrences of items with the word "Form " followed by two numeric values, then "-" and then the letters "K", "F" or "Q", such as "Annual Report on Form 10-K", "Annual Report on Form 20-F" or "Covered Reports - Form 10-QSB".
Form ##-[!KFQ]	Finds all occurrences of items with the word "Form " followed by two numeric values, then "-" and then any character except for the letters "K", "F" or "Q".
stock[A-Z]	Finds all occurrences of items with the word "stock", followed by any alphabetic letters (A-Z). Thus "Stockholders" is found, but "Stock Dividends" is not found.
stock[!A-Z]	Finds all occurrences of items with the word "stock", followed by any non-alphabetic letters (A-Z). Thus "Stock Dividends" is found, but "Stockholders" is not.

➤ To search for a line item:

1   In **Find what**, enter complete or partial text. Partial text can use a wildcard. The *** wildcard** is used by default. Select **Match whole word only** or **Match case** to limit your search.

2   Click **Find Next** to begin your search. Click **Up** to change the direction of the search upward in the line items; click **Down** to change the direction of the search downward in the line items.

Using XBRL Facts in Text Objects and Text Cells

XBRL facts with textual information may get data from text objects or text cells in a grid. The procedures are similar for text objects and text cells. An XBRL fact containing textual information and can be used in the following manner:

- Textual information must reside in a text cell or a text object.

- The XBRL fact with non-numeric data has an XBRL context; Units are not applicable.

- The XBRL line item associated with text must have a data type of string in the schema.

➤ **To define text in a text object or text cell as an XBRL fact.**

1 Select the content in a text object or text cell.

2 In the property sheet, select **XBRL Fact**

3 In **Line Item**, click to select a line item for a schema.

4 in **XBRL Context**, select a context. To create a new XBRL Context, click .

Using XBRL Footnotes in Text Objects and Text Cells

XBRL instance documents can contain footnotes. Footnotes are textual information about one numerical or text fact. This fact may be in a grid's text cell or text object. In order to associate a footnote, the line item must be previously mapped.

➤ **To associate text from a text object to an XBRL fact in another text object.**

1 Select the text object.

2 In the property sheet, select **XBRL Footnote, Associate with a**, then select the location of the XBRL Fact associated with this footnote.

Text cells in grids can contain footnotes also.

➤ **To associate a footnote to a text object:**

1 Select the cell text.

2 In the **Cell Properties** sheet, select **Text Object**, then select the text object from the list.

> **Note:** The text shown in the list represents the first 30 characters of all the text objects currently defined in the report.

Exporting the Instance Document

An instance document, in XML format, can be created from Reporting Studio Designer that is defined with XBRL metadata.

➤ **To export the instance document:**

1 Open a report that is set up for XBRL.

- For information on setting up Reporting Studio for XBRL, see "Setting Up Financial Reporting for XBRL" on page 280.

- For information on defining the context, see "Managing XBRL Context" on page 284.

2 Select **File**, then **Export**.

3 **Optional.** In the **Save-in** drop-down list, select another path than the default directory.

4 **Optional.** In the **File name** text box, enter an instance report name.

5   In the **Save as type** drop-down, select **XBRL Instance Document (*.xml)**.

6   Click **Save**.

7   If the grid has multiple members on the Pages axis, the **Select Members for Page Axis** dialog box. Select a member for the page axis for each grid on the report.

8   Click **OK**.

Select Member for Page Axis Dialog Box

A drop-down box is displayed for each grid on the report that contains XBRL line items. You are required to select a member for the page axis for each grid on the report that contains XBRL line items.

➤ To select a member for the page axis, click on each drop-down list and select a member.

Note: If you selected Custom Heading for the page properties (on the Page Properties sheet), you must define the members with MemberName, MembAlias and/or Member Description to display the members in the Select Members for Page Axis dialog box.

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Working with Books and Snapshot Books

Using Workspace, you can assemble reports and snapshots into a book, which enables you to generate output for those reports in one session. You can also configure your book to generate several versions of a report that are run for different member selections. By creating a book containing those reports, you can run all reports at once. The reports contained in the book can be printed or viewed individually or as an entire book.

There are two types of books that you can define and save to the Explore repository:

- Books. reports, and snapshots can be added to a book. When you run a book, the data within the reports is dynamically retrieved from the database; the data within the snapshots remains static.

- Snapshot books. A book can be saved as a snapshot book. All reports are converted to snapshots containing static data for that period of time. The data contained in the reports, and a table of contents, is created when you save a book as a snapshot book. Any time a snapshot book is viewed, data-level security does not apply. Data-level security is applied when the snapshot book is created and is based upon the data level security that is set up for the user that saved the snapshot book.

Using Workspace, you can perform the following additional tasks with books and snapshot books from Financial Reporting:

- Use batches to group and process sets of books.

- E-mail links to the books or snapshot books from the repository.

- Change the data source for a book in the repository.

- Make an exact copy of books or snapshot books in the repository.

- Permanently delete books or snapshot books.

- Import books and snapshot books from a file system outside of the repository. When you import the book, it is saved within the Export repository. You can then perform any tasks on the book.

- Export books and snapshot books.

For complete information on the above topics, see *Oracle Enterprise Performance Management Workspace User's Guide.*

Administrative Tasks for Financial Reporting

The following administrative tasks are specific to Financial Reporting.

POV Management

The Manage User POV utility is a command line utility where the administrator creates, views, updates, or deletes the Financial Reporting POV for one or more users. The utility is installed with Reporting Studio to the `<BIPlus>\bin` directory as `ManageUserPov.cmd` and comes with a sample configuration file called `ManageUserPOV.properties`.

To run the utility, open a command prompt in the `<BIPlus>\bin` directory and run the `ManageUserPov.cmd`:

`ManageUserPOV <Mode> <ConfigFileName>`

where `Mode` = Import, Export, or Delete (case insensitive)

where `ConfigFileName` = the name of the configuration file (the default name is `ManageUserPov.properties` located in the `<BIPlus>\bin` directory).

Example: ManageUserPOV Export ManageUserPov.properties

Two files must be predefined before executing the POV utility; the configuration file, such as `ManageUserPov.properties`, and, when importing, an import file such as `ManageUserPovImport.xml`. Sample files are provided in the `<BIPlus>\bin` directory:

- `ManageUserPov.properties` file. Use this file to define the report server, assign administrator and data source credentials, specify the import and export file names, and set the various options such as user and data source filters and whether or not to perform a dry run, or confirm deletion of User POVs. See the sample `ManageUserPov.properties` file for details.

- The `ManageUserPovImport.xml` file. An `ImportFileName`, such as `ManageUserPovImport.xml`. The XML file created during an export can also be edited and used for importing.

Import Behavior Guidelines

- Database connections which do not yet exist in the repository are created if the TYPE, SERVER, APPNAME, and DBNAME attributes are provided. Valid data source TYPEs are: Essbase, FinancialManagement, Planning, SAPBW, MSOLAP.

- All dimensions and members are validated against the data source to ensure that only valid User POVs are created or updated.

- Individual user access to a member is not validated; administrators should assign User POVs to only those users with access rights to view them.

- User POVs are only created for provisioned users.

- Partial User POVs are valid; only dimensions specified in the import file are updated.

Using the User POV Utility

The following instanced describe how the User POV Utility is used.

Exporting User POVs

➤ To export all existing User POVs:

1 Edit the `ManageUserPov.properties` file and specify the `ReportServer`.

2 Open a command prompt in the BIPlus\bin directory and type: `ManageUserPov.cmd Export ManageUserPov.Properties`.

3 When prompted, supply the Admin User and Password.

A `ManageUserPovExport.xml` file is created which contains all the current User POVs in the system. A sample console interaction:

```
C:\Hyperion\BIPlus\bin>ManageUserPov.cmd Export
ManageUserPov.properties

Please enter AdminUser : AdminUser

Please enter AdminPassword :*********

INFO : Starting Hyperion Financial Reporting ManageUserPOV Utility

INFO : Ending Hyperion Financial Reporting ManageUserPOV Utility
```

Importing User POVs

➤ To update an existing User POV:

1 Follow the steps to export all existing User POVs.

2 Open the `ManageUserPovExport.xml` file and update the desired User POV in the file. For example, specify a Member Name="East" for the Market Dimension, for the User LoginID="TestUser", for the DATASOURCE_NAME="Essbase Sample Basic on TestServer"

3 Edit the `ManageUserPov.properties` file and specify these filters to perform the update for a single user and datasource:

```
Users = TestUser

Datasources = Essbase Sample Basic on TestServer
```

> **Note:** If the Datasource credentials are different from the Admin credentials, you should specify an asterisk (*) to prompt for them separately, such as: `DatasourceUser=*, DatasourcePassword=*`.

4 Save the file as `ManageUserPovImport.xml`.

5 Open a command prompt in the BIPlus\bin directory and type: `ManageUserPov.cmd Import ManageUserPov.properties`.

6 When prompted, supply the Admin User and Password and optionally the Datasource User and Password.

The User POV is updated with the new value for Market. A sample console interaction:

```
C:\Hyperion\BIPlus\bin>ManageUserPov.cmd Import
ManageUserPov.properties

Please enter AdminUser : AdminUser

Please enter AdminPassword :*********

Please enter DataSourceUser : TestUser

Please enter DataSourcePassword :*********

INFO : Starting Hyperion Financial Reporting ManageUserPOV Utility

INFO : Setting POV for user: TestUser

INFO : Processing DataSource: Essbase Sample Basic on TestServer

INFO : Processing Year = Year

INFO : Processing Measures = Measures

INFO : Processing Product = Product

INFO : Processing Market = East

INFO : Processing Scenario = Scenario

INFO : Processing Caffeinated = Caffeinated

INFO : Processing Ounces = Ounces
```

```
INFO : Processing Pkg Type = Pkg Type

INFO : Processing Population = Population

INFO : Processing Intro Date = Intro Date

INFO : Processing Attribute Calculations = Attribute Calculations

INFO : Ending Hyperion Financial Reporting ManageUserPOV Utility
```

Deleting User POVs

➤ To delete an existing User POV:

1 Edit the `MangeUserPov.properties` file and specify the `ReportServer` and desired filters. For example, to delete a single user "TestUser" POV for the datasource "Essbase Sample Basic on TestServer", specify:

```
Users = TestUser

Datasources = Essbase Sample Basic on TestServer
```

2 Open a command prompt in the BIPlus\bin directory and type: `ManageUserPov.cmd Delete ManageUserPov.properties`.

3 When prompted, supply the Admin User and Password.

The User POV is deleted. A sample console interaction:

```
C:\Hyperion\BIPlus\bin>ManageUserPov.cmd Delete
ManageUserPov.properties

Please enter AdminUser : AdminUser

Please enter AdminPassword :*********

INFO : Starting Hyperion Financial Reporting ManageUserPOV Utility

This action will delete 1 POV's

Are you sure you want to proceed? Press 1 to Proceed and 0 to Cancel :
1

INFO : Ending Hyperion Financial Reporting ManageUserPOV Utility
```

Financial Reporting Initial User Preferences Definition

Initial User Preferences for Financial Reporting can be defined for all users through `fr_repserver.properties` file settings. These settings will appear for an end user when logging into Workspace for the first time. The settings can then be changed, if desired, in the User Preferences dialog box. The `fr_repserver.properties` file settings are as follows:

Specify a default user preference value for XBRL enabled.

Value can be either true or false.

#com.hyperion.reporting.HRPrefs.xbrlenabled=

Specify a default user preference value for ruler unit.

Value can be either Inches or Centimeters.

#com.hyperion.reporting.HRPrefs.Units=

Specify a default user preference value for grid line color.

Value is in the format of #RRGGBB where RR is hex value for red, GG is hex value for green and BB is blue as specified by HTML specifictions.

#com.hyperion.reporting.HRPrefs.glcolor=

Specify a default user preference value for grid line style.

Value can be either Line or Dot.

#com.hyperion.reporting.HRPrefs.glstyle=

Specify a default user preference value for grid line snapping.

Value can be either True or False.

#com.hyperion.reporting.HRPrefs.glsnap=

Specify a default user preference value for MS Office version.

Value can be either Office2000 or Office2002.

#com.hyperion.reporting.HRPrefs.office_format=

Specify a default user preference value for location of User POV bar.

Value can be either above or viewpane.

#com.hyperion.reporting.HRPrefs.locationuserpov=

Specify a default user preference value for user's language.

Value can be any ISO language code for supported languages.

#com.hyperion.reporting.HRPrefs.language=

Specify a default user preference value for user's country.

Value can be any ISO country code for supported country.

#com.hyperion.reporting.HRPrefs.country=

Specify a default user preference value for view type.

Value can be html or pdf

#com.hyperion.reporting.HRPrefs.viewtype=

Specify a default user preference value for digit grouping.

Value can be , . or _

#com.hyperion.reporting.HRPrefs.digitgroup=

Specify a default user preference value for showing Preview User POV dialog.
#com.hyperion.reporting.HRPrefs.previewuserpov=

Value can be 0 or 1

Value of 1 will display Preview User POV dialog whereas 0 will not.

Specify a default user preference value for decimal symbol.

Value can be , . or _

#com.hyperion.reporting.HRPrefs.decimalsymbol=

Report Server Tasks

Financial Reporting Server configuration is performed as part of the installation process. The following topics describe additional tasks that can be performed.

Specifying the Maximum Number of Calculation Iterations

You can specify the maximum number of calculation iterations for all grids and cells in the `fr_repserver.properties` file to resolve dependencies within references in formulas. During the calculation process of a grid, it may be necessary to evaluate a cell multiple times due to reference precedence. This usually occurs in grids with references to other grids. The maximum iteration property indicates the number of times a formula cell can be evaluated before it is marked as unresolved. Setting the maximum iteration property avoids the possibility of cells, with circular referencing, being evaluated an infinite amount of times. Circular referencing occurs when one cell refers to another cell which then refers to the original cell.

If there are no circular references and calculation cells are returning #Error, you can increase the maximum iteration property value. The default value for the maximum number of calculation iterations is 10. This value is set in the `fr_repserver.properties` file which is installed in the `lib` directory of your Financial Reporting installation. This file also contains comments to guide you in modifying this value, if necessary.

Note: Making the maximum iteration property number very high may degrade grid execution performance.

Log File Output Management

Financial Reporting uses the `log4j` logging mechanism to manage log file output. Logging settings can be configured and are set in the `fr_repserver.properties` file for each Financial Reporting server component.

This code is an example of Financial Reporting Server default settings in the `fr_repserver.properties` file. Settings you might modify are shown in bold text.

```
# log4j.rootLogger=ERROR,dest1
# log4j.appender.dest1=org.apache.log4j.RollingFileAppender
# log4j.appender.dest1.ImmediateFlush=true
# log4j.appender.dest1.File=C:/hyperion/BIPlus/logs/FRReportSrv.log
# log4j.appender.dest1.Append=true
# log4j.appender.dest1.MaxFileSize=512KB
# log4j.appender.dest1.MaxBackupIndex=5
# log4j.appender.dest1.layout=org.apache.log4j.PatternLayout
# log4j.appender.dest1.layout.ConversionPattern=%d{MM-dd
HH:mm:ss} %-6p%c{1}\t%m%n
```

Note: See `fr_global.properties` for details on logging levels (FATAL, ERROR, WARN, INFO, DEBUG) and formatting options. The Financial Reporting logging settings can be changed without restarting the servers. The `.properties` files are monitored for changes to the logging setting every minute. The frequency is set in `fr_global.properties`. This can be very handy if you want to set the logging level to DEBUG briefly and then change it back for troubleshooting a production environment.

Periodic Log File Rolling

In addition to the default `RollingFileAppender` there is a `DailyRollingFileAppender` option to make periodic backups of the current log file. The `DailyRollingFileAppender` rolls the log file over at a user chosen frequency: monthly, weekly, half-daily, daily, hourly, or every minute.

The rolling schedule is specified by the DatePattern option.

An example of a schedule that rolls the log file on a daily basis:

```
log4j.rootLogger=ERROR,dest1
log4j.appender.dest1=org.apache.log4j.DailyRollingFileAppender
log4j.appender.dest1.ImmediateFlush=true
log4j.appender.dest1.File=d:\\Hyperion\\HR\\Logs\\Daily_HRReportSrv.log
log4j.appender.dest1.Append=true
log4j.appender.dest1.DatePattern='.'yyyy-MM-dd
log4j.appender.dest1.layout=org.apache.log4j.PatternLayout
log4j.appender.dest1.layout.ConversionPattern=%d{MM-dd
HH:mm:ss}  %-6p%c{1}\t%m%n
```

In the above example, at midnight, the `Daily_HRReportSrv.log` is copied to `Daily_HRReportSrv.log.2003-10-30` at midnight on October 30. Logging for the current day continues in `Daily_HRReportSrv.log` until it rolls over the next day as `Daily_HRReportSrv.log.2003-10-31`.

Note: The current log file is not rolled to a daily backup file until a log entry needs to be written. So it may not happen right at midnight and if you go a day without log entries you will not see a backup log file for that day. This is done for efficiency reasons. Note that regardless of the delay, all logging events are logged to the correct file.

Reports uses the standard `Log4j` package from the Apache group to handle logging duties. For more details on the DailyRollingFileAppender syntax and options, see:

```
http://jakarta.apache.org/log4j/docs/api/org/apache/log4j/
DailyRollingFileAppender.html
```

Changing Logging Options

The Hyperion Reports logging settings can be changed without restarting servers. The `.properties` files are monitored for changes to the logging setting every minute. The frequency is set in the `fr_global.properties` file. This is handy if you want to set the logging level to DEBUG briefly and then change it back for troubleshooting a production environment.

Application Server Logging

Each application server has its own mechanism for logging `stdout` and `stderr` for the JVM process(es) it starts:

- JRun—`\Jrun4\logs`

- WebSphere—`\WebSphere\AppServer\logs\<server name>\`

- WebLogic—`\<domain location>\wl-domain.log` and/or `\weblogic<version>\common\nodemanager\NodemanagerLogs` (if using node manager to start/stop servers)

- Tomcat—`%CATALINA_BASE%\logs` (e.g. `\Program Files\Hyperion Solutions\Hyperion Reports\HRWeb\logs`)

While Financial Reports logs nothing of interest to stdout or stderr, you can check the output in case of a JVM crash (blown heap or native thread dump).

Backing Up Current Log Files

You can make a backup of the current log file on a periodic basis by changing the default `RollingFileAppender` option to `DailyRollingFileAppender`. The `DailyRollingFileAppender` rolls the log file over at a user-chosen frequency of monthly, weekly, half-daily, daily, hourly, or minute. The rolling schedule frequency is specified by the `DatePattern` option. See the following table for details on the `DailyRollingFileAppender` syntax and options.

Table 50 DatePattern Options

DatePattern	Rollover Schedule	Example
`'-'yyyy-MM`	Rollover at the beginning of each month.	At midnight, on October 31, 2003, the `Daily_HRReportSrv.log` is copied to `Daily_HRReportSrv.log.2003-10`. Logging for the month of November continues in `Daily_HRReportSrv.log` until it rolls over the next day to `Daily_HRReportSrv.log.2003-11`.
`'-'yyyy-ww`	Rollover at the first day of each week. The first day of the week depends on the locale.	Assuming the first day of the week is Sunday, on Saturday midnight, October 9th 2003, the file `Daily_HRReportSrv.log` is copied to `Daily_HRReportSrv.log.`

DatePattern	Rollover Schedule	Example
		`2003-23`. Logging for the 24th week of 2003 is output to `Daily_HRReportSrv.log` until it is rolled over the next week.
`'-'yyyy-MM-dd`	Rollover at midnight each day.	At midnight, on October 2003, the `Daily_HRReportSrv.log` is copied to `Daily_HRReportSrv.log.2003-10-30`. Logging for the current day continues in `Daily_HRReportSrv.log` until it rolls over the next day to `Daily_HRReportSrv.log.2003-10-31`.
`'-'yyyy-MM-dd-a`	Rollover at midnight and midday each day.	At noon, on October 9th, 2003, `Daily_HRReportSrv.log` is copied to `Daily_HRReportSrv.log.2003-10-09-AM`. Logging for the afternoon of the 9th is output to Daily_HRReportSrv.log until it is rolled over at midnight.
`'-'yyyy-MM-dd-HH`	Rollover at the top of every hour.	At approximately 11:00.000 o'clock on October 9th, 2003, `Daily_HRReportSrv.log is copied to Daily_HRReportSrv.log. 2003-10-09-10`. Logging for the 11th hour of the 9th of October is output to Daily_HRReportSrv.log until it is rolled over at the beginning of the next hour
`'-'yyyy-MM-dd-HH-mm`	Rollover at the beginning of every minute	At approximately 11:23.000 o'clock on October 9th, 2003, `Daily_HRReportSrv.log is copied to Daily_HRReportSrv.log. 2003-10-09-10-22`. Logging for the minute of 11:23 (9th of October) is output to Daily_HRReportSrv.log until it is rolled over the next minute.

Assigning Financial Reporting TCP Ports for Firewall Environments or Port Conflict Resolution

By default, Financial Reporting components communicate with each other through Remote Method Invocation (RMI) on dynamically assigned Transmission Control Protocol (TCP) ports. To communicate through a firewall, you must specify the port of each Financial Reporting component separated by the firewall in its `.properties` file and then open the necessary ports in your firewall. These `.properties` files are located in the Financial Reporting `lib` directory.

In addition, you may need to open ports for the Reports Server RDBMs, for data sources that you report against, and for LDAP/NTMLM for external authentication.

Note: Ports should be opened in the firewall only for Financial Reporting components that must communicate across the firewall. If the Financial Reporting components are not separated by a firewall, they can use the default dynamic port setting.

You can change the port assignments to use in a firewall environment for servers in these Financial Reporting `.properties` files.

- The Communication Server runs on each computer running any of the Financial Reporting server components shown below and requires 1 port. By default, this is 1099 but can be specified in the `fr_global.properties` file using `RMIPort=`.

- The Report Server requires 2 ports which are specified in the `fr_repserver.properties` file using `HRRepSvrPort1=` and `HRRepSvrPort2=`.

- EPM Workspace requires 1 port which are specified in the `fr_webapp.properties` file using `HRHtmlSvrPort=`.

- The Scheduler Server requires 1 port which is specified in the `fr_scheduler.properties` file using `HRSchdSvrPort=`.

- The Print Server requires 1 port which is specified in the `fr_printserver.properties` file using `HRPrintSvrPort=`.

Note: When assigning static ports for each Financial Reporting component, the typical values are between 1024 and 32767.

When the Financial Reporting Server Components are distributed among several machines, there may be a need for you to change the default RMIPort on one or more machines. For example, suppose you installed a Report Server on MachineA, and left the default RMIPort configuration intact, but installed a Print Server on MachineB, and had to change the default RMIPort assignment to 1100 to resolve a conflict with another application. In this case, it would be necessary for you to reference the Print Server using *hostname:port* nomenclature in any or all `.properties` files that refer to the Print Server. In this example, your would assign printserver1=machineB:1100 in fr_repserver.properties.

Note: If you change the RMIPort for the Report Server component, users logging on through the Reports Desktop should use the same *hostname:port* nomenclature.

What follows is a list of properties file entries that require :*port* be appended if the target *hostname* computer uses another RMIPort. If all components define the same RMIPort, you need supply only *hostname* in all properties files.

Table 51 Properties Files

Properties Files	Entries
fr_repserver.properties	printserverx= SchedulerServer=
fr_webapp.properties	HRWebReportServer=

Note: If RMIPort is changed in fr_global.properties on the computer where the Report Server is running, and Planning Details is a valid data source, then ADM_RMI_PORT should also be changed in ADM.properties. For example: C:\Hyperion\common\ADM\9.0.0\lib\ADM.properties.

Accessing Server Components Through a Device that Performs NAT

The following topics discuss how to access server components through Network Address Translation (NAT).

Network Address Translation (NAT)

Network Address Translation (NAT) makes possible the use of a device, such as a router, to act as an agent between two networks whereby only one unique IP address is required to represent an entire group of computers.

Remote Method Invocation (RMI)

Communication between the client and server in Financial Reporting is achieved via Java's Remote Method Invocation (RMI) protocol. By default, an RMI server program communicates with clients using the IP address of the computer on which it is running.

Issue Using RMI Through Devices that Perform NAT

The combination of Java RMI and NAT has an inherent issue, in that Java attempts to route client requests to the IP of the computer on which the RMI server is running, rather than to the masqueraded address supplied by NAT.

To work around this issue, the Java Virtual Machine (JVM) accepts two arguments that allow RMI server programs to communicate with clients using the IP of another computer or device, such as a router that performs NAT.

If your Report Client computers access Reports Server components though a device that masks outgoing packets through NAT (Network Address Translation), then you must follow the procedures listed below.

Adding Required Java Arguments on Windows Systems

The following procedures explain how Java arguments are added to Windows. This applies to the Report Server, Print Server, and Scheduler Server.

➤ To add Java arguments to Windows systems for the Report Server, Print Server, and Scheduler Server:

1 Open the Windows registry, and navigate to `HKEY_LOCAL_MACHINE\Software\Hyperion Solutions\Financial Reporting`.

2 For each of the keys HRReportSrv, HRPrintSrv, HRSchedSrv:

- Add two new String Values: **JVMOptionx** and **JVMOptiony**, where *x* and *y* are replaced with the next available number on their JVMOption series.

- Assign the new entries these values:

  - JVMOption*x*: ***-Djava.rmi.server.hostname=<IP or hostname of NAT device>***

  - JVMOption*y*: **-Djava.rmi.server.useLocalHostname=false**

  - Increase the value of `JVMOptionCount` by 2.

3 Start or restart the components.

WebLogic

➤ For the WebLogic server:

1 Take an action:

- If you chose to run EPM Workspace as a Windows service, open the Windows registry, and navigate to: **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ beasvc hr_domain_HReports\Parameters.**

  - Edit the string value **CmdLine** by prepending **-Djava.rmi.server.hostname=<IP or hostname of NAT device> - Djava.rmi.server.useLocalHostname=false to the existing value.**

- If you did not choose to run EPM Workspace as a Windows Service, open **... \HyperionReports\HRWeb\hr_domain\startWeblogic.cmd in** a text editor, and add **-Djava.rmi.server.hostname=<IP or hostname of NAT device> - Djava.rmi.server.useLocalHostname=false** to the **JAVA_OPTIONS** variable declaration.

2 Start or restart the components.

WebSphere

➤ For the WebSphere server:

1 Start the WebSphere Administrator's Console.

2 Navigate to **Servers**, then **Application Servers** and select your server.

3 In the **Additional Properties** section, select **Process Definition**.

4 In the **Process Definition's Additional Properties** section, select **Java Virtual Machine**.

5 Append the following lines to the Generic JVM Argument property: `- Djava.rmi.server.hostname=`*IP or hostname of NAT device* `- Djava.rmi.server.useLocalHostname=false`

6 Start/restart the components.

Tomcat

➤ For the Tomcat server:

1 **Open the Windows registry, and navigate to:** `HKEY_LOCAL_MACHINE\SYSTEM` `\CurrentControlSet\Services\HRWeb\ Parameters`

2 **Add two new String Values called** `JVM Option Number x` **and** `JVM Option Number y`, **where** `x` **and** `y` **are replaced with the next available number on their JVM Option Number series.**

3 **Assign the new entries these values:**

- JVM Option Number x --> -Djava.rmi.server.hostname=<IP or hostname of NAT device>
- JVM Option Number y --> -Djava.rmi.server.useLocalHostname=false

4 **Increase the value of JVM Option Count by 2.**

5 **Start/restart the components.**

Adding Required Java Arguments on UNIX Systems

The following procedures explain how Java arguments are added to UNIX systems. This applies to the Report Server, Print Server, Scheduler Server, and Tomcat.

➤ To add Java arguments to UNIX systems for the Report Server, Print Server, Scheduler Server, and Tomcat:

1 **Open** `.../BIPlus/bin/freporting` **for editing.**

2 **In the start block for each component installed, add the two new required entries;** `-Djava.rmi.server.hostname=<IP or hostname of NAT device> -Djava.rmi.server.useLocalHostname=false` **after the appropriate** `-c "${JAVA_HOME}/bin/java"` **line.**

For example:

```
-c "${JAVA_HOME}/bin/java
   -Djava.rmi.server.hostname=IP or hostname of NAT device
   -Djava.rmi.server.useLocalHostname=false
```

3 **Start/restart the components.**

WebLogic

➤ For the WebLogic Web server:

1 **Open** `.../HyperionReports/HRWeb/hr_domain/startWeblogic.sh` **in a text editor, and add** `-Djava.rmi.server.hostname=<IP or hostname of NAT device> -Djava.rmi.server.useLocalHostname=false` **to the** `JAVA_OPTIONS` **variable declaration.**

2 **Start/restart the components.**

WebSphere

➤ For the WebSphere Web server:

1 Start the WebSphere Administrator's Console.

2 Navigate to **Servers**, then **Application Servers** and select your server.

3 In the Additional Properties section, select Process Definition.

4 In the Process Definition's Additional Properties section, select **Java Virtual Machine**.

5 Append the following to the Generic JVM Argument property: `-Djava.rmi.server.hostname=<IP or hostname of NAT device> -Djava.rmi.server.useLocalHostname=false`

6 Start/restart the components.

Oracle Essbase Ports

The following topics contain procedures that you might need to implement, you may already have them implemented, or your system may not require them.

Differences Between Oracle Essbase Ports and Connections

This section describes the differences between Oracle Essbase ports and connections when running this release of Financial Reporting.

Important considerations:

● You are licensed by Oracle Essbase ports.

● A 100 concurrent user license for Oracle Essbase means 100 Oracle Essbase ports are licensed.

● An unlimited number of connections is allowed on each of those ports.

● The number of connections you open to Oracle Essbase is not relevant for licensing purposes. What matters is the number of Oracle Essbase ports.

When a user runs a report in Financial Reporting, connections are opened to Oracle Essbase. For performance optimization purposes, these connections are cached. When the connections become idle, a process is run periodically to close them.

The system administrator can modify the length of time before a connection is considered inactive (MinimumConnectionInactiveTime, default of 5 minutes) and the length of time before inactive connections are closed (CleanUpThreadDelay, default of 5 minutes) in the `fr_global` properties file.

The number of ports used by Financial Reporting varies, depending on the configuration, as follows:

● If a Report Client such as the Windows UI runs a report, two Oracle Essbase connections are made; one for the Report Client, and one for the Report Server.

● If the Report Client and Report Server are on the same computer, two Oracle Essbase connections using one Oracle Essbase port are made.

- The Report Client keeps the Oracle Essbase connection until the window with the report displayed is closed.
- The Report Server keeps this Oracle Essbase connection until the process is run to close idling open connections.
- When both connections are closed, the port is released.

- If the Report Client and Report Server are on two different machines, two Oracle Essbase connections using two Oracle Essbase ports are made.
  - The Report Client keeps the Oracle Essbase connection until the window with the report displayed is closed.
  - The Report Server keeps this Oracle Essbase connection until the process is run to close idle open connections.
  - When the Report Client connection is closed, the corresponding port for that connection is released.
  - When the Financial Reporting connection is closed, the corresponding port for that connection is released.

When a Reporting Studio user such as the Browser UI runs a report, two Oracle Essbase connections are made: one for the Web server and one for the Report Server.

- If the Web server and Report Server are on the same computer, two Oracle Essbase connections using one Oracle Essbase port are made.
  - The Web server keeps the Oracle Essbase connection until the process is run to close idle open connections.
  - The Report Server keeps this Oracle Essbase connection until the process is run to close idle open connections.
  - When both connections are closed, the port is released.

- If the Web server and Report Server are on two different computers, two Oracle Essbase connections using two Oracle Essbase ports are made.
  - The Web server keeps the Oracle Essbase connection until the process is run to close idling open connections.
  - The Report Server keeps this Oracle Essbase connection until the process is run to close idling open connections.
  - When the Web server connection is closed, the corresponding port for that connection is released.
  - When the Report Server connection is closed, the corresponding port for that connection is released.

The recommended configuration is as follows:

- The Report Server and Web server are installed on the same computer.
- The Report Client is installed on several other computers. In this case, you must take two Oracle Essbase ports only for users working with the Report Client. All users connecting to view reports in EPM Workspace take a single Oracle Essbase port for each Oracle Essbase user, because the Web server and Report Server are on the same computer.

Checking the Current Oracle Essbase Connections

To check for current connections in the Oracle Essbase server command window, type USERS in the command window. The list displays the current connections and ports currently used.

Changing Settings in Oracle Essbase Configuration Files

When using the following settings in the Oracle Essbase configuration file, Oracle Essbase Connection Time Outs are reduced.

- Add or increase the following Oracle Essbase client settings in the `essbase.cfg` file:
    - ❍ NETDELAY 1000
    - ❍ NETRETRYCOUNT 1000

Calculating the Formula for the Maximum Number of Oracle Essbase Ports

The basic formulas for calculating the maximum number of Oracle Essbase ports you need for Financial Reporting are as follows:

- If EPM Workspace and Report Server are on the same computer:

    Number of Oracle Essbase ports = 2 X the number of Report Clients

    + the number of EPM Workspace users

- If EPM Workspace and Report Server are on different computers:

    Number of Oracle Essbase ports = 2 X the number of Report Clients

    + 2 X the number of Oracle Enterprise Performance Management Workspace, Fusion Editions

> **Note:** This formula is for Financial Reporting and does not consider other ways users might be connecting to Oracle Essbase; for example, the Application Manager, Oracle's Hyperion® Web Analysis, or the Excel Add-in. You must consider those potential port-takers separately. If they are used on the same computer as one of the Financial Reporting components, no extra ports are taken as long as the same Oracle Essbase user ID is being used.

Data source considerations are as follows:

- If you run a report with two data sources, your number of connections doubles, but the number of ports remains the same as described previously.

- If you run a report with three data sources, your number of connections triples, but the number of ports remains the same as described previously.

- If, after closing the report with two data sources, you run a report with a 3rd data source, your connections increases again but the number of ports does not change.

A user's connection is open for at least five minutes and remains open for up to 10 minutes, assuming no new activity occurs during that time. If you have a limited number of Oracle Essbase

ports, and many users are a ccessing Financial Reporting, you may want to lower both values to 30 seconds (30000).

Scheduler Command Line Interface

Scheduler Command Line Interface is the process of launching a Financial Reporting batch input file from a command line. You can automate the process of launching batch input files using an external scheduler or launching batch input files after some external event occurs, such as the completion of a consolidation.

Note: For the Financial Reporting Scheduler to successfully send e-mail notifications, a valid smtp mail server must be specified in the `...\lib\fr_global.properties` file.

Creating Batch Input Files

The batch input file specifies the options for the scheduled batch such as the name of the batch to be scheduled, output destinations, e-mail notification information, POV settings, and others.

➤ To create a batch input file:

1 Right-click a previously scheduled batch in the Batch Scheduler dialog box and choose **Export for Command Line Scheduling**.

2 Open the `mybatch.xml` where `mybatch` is the name of your batch input file.

3 Modify this file as needed by editing the values in the tags, see for the commonly used attributes.

Launching Batches from a Command Line

You can use the `ScheduleBatch.cmd` command file provided in the `BIPlus\bin` directory to launch the batch specified in the batch input file against a Financial Reporting scheduler server.

➤ To launch a batch from a command line prompt in the `BIPlus\bin` directory, enter the command by specifying the fully qualified name of the batch input file and the computer name or IP address of the Scheduler Server on which to schedule the batch, for example:

`ScheduleBatch c:\DailyReports\mybatch.xml MySchedulerServer`

where `MyBatch.xml` is the name of your batch input file and `MySchedulerServer` is the name or IP address of your scheduler server which is typically located on the same computer as the report server.

This launches a batch to run immediately against the scheduler server specified.

Scheduling Batches Using an External Scheduler

You can launch a batch on a periodic basis from an external scheduler. To do this, you set up your own command files and call them from the external scheduler.

For example, you might have a `NightlyBatch.cmd` file containing these lines:

```
call ScheduleBatch MgtSummaryBatch.xml hr_Server
call ScheduleBatch MgtDetailBatch.xml hr_Server
```

Encoding Passwords

Your passwords are encoded when you export the batch input file. To specify another user ID or data source ID in the batch input file, then you can use the following file to produce an encoded password for use in the batch input file.

● Windows—`EncodePassword.cmd`

● UNIX—`EncodePassword`

> **Note:**   This procedure is optional.

➤ To encode passwords:

1 Open the batch input file to modify the data source and user ID passwords.

2 From the command line, run the `EncodePassword.cmd` file.

3 Type **EncodePassword** *Password*, where *Password* is the new password you want to use.

4 Place the encoded password produced in the batch input file.

Modifying Attributes

In a typical batch input file, there are very few attributes to modify. Most attributes are already set properly based on the originally scheduled batch. The following table lists attributes that you are most likely to modify for the associated XML tags.

Table 52   Commonly Used Attributes

Category	Attribute	Description
General	AUTHOR	Displays in the batch scheduler's User ID column and is a useful place to show a comment or the name of the XML file that generated the batch.
E-mail	ATTACH_RESULTS	Enter a "Yes" or "No" value, depending on whether you want to attach PDF or HTML files generated to the e-mail.

Category	Attribute	Description
FAILURE_RECIPIENTS	E-mail to recipients if schedule batch failed	
FAILURE_SUBJECT	Text if scheduled batch fails	
RECIPIENTS	A comma-separated list of recipient's e-mail addresses.	
	SENDER	The sender's e-mail address.
	SUBJECT	The subject of the e-mail.
Credentials	*DS_PASSWD*	The encrypted data source password from an existing batch or that you generate using the command line utility.
DS_USER_NAME	The data source user whose credentials are used for running the reports/books in the batch.	
HR_PASSWD	The encrypted Financial Reporting user password from an existing batch or that you generate using the command line utility.	
HR_USER_NAME	The Financial Reporting user whose credentials are used for running the reports/books in the batch.	
HTML and PDF output	*HTML VALUE*	Enter a "Yes" or "No" value, depending on whether you want to generate HTML output for the batch.
PDF VALUE	Enter a "Yes" or "No" value, depending on whether you want to generate PDF output for the batch.	
	HTML EXPORT_HTML_FOLDER_ LABEL	If exporting as HTML (Value=Yes), The path and folder to external directory.
	PDF EXPORT_HTML_FOLDER_LABEL	If exporting as PDF (Value=Yes), the path and folder to external directory.
Snapshot Output	*SAVE_AS_SNAPSHOT VALUE*	Enter a "Yes" or "No" value, depending on whether you want to save the snapshot output in the repository.
SAVE_NAME	The Folder Name where the Snapshots are to be stored. This must be specified in `ReportStore:\\ format`. If SAVE_NAME = "", the snapshot output is saved to the same folder as the original object.	

Category	Attribute	Description
USER_NAMES	Comma-separated Financial Reporting user names who are granted access to the snapshot output.	
GROUP_NAMES	Comma-separated Financial Reporting group names which are granted access to the snapshot output. A special system-defined group, called Everyone, includes all Financial Reporting users and can be used to ensure that all users have access to a snapshot output.	
Printed Output	PRINT NAME	The printer name, if the PRINT VALUE attribute is set to "Yes". **Note:** You must make sure that this printer is available to the scheduler server.
PRINT VALUE	Enter a "Yes" or "No" value, depending on whether you want to generate printed output for the batch.	

Note: In the USER_POV section of the XML file, HIDDEN="0' indicates a dimension which is on the POV and therefore is a candidate or value to be set in the XML file. The value to be changed is "_" in this example.

Batch Input File XML Tag Reference

The following topics provide a complete listing of tags and values for the associated attributes. The structure of an XML file is similar to a tree level or directory structure. There is basically one parent-level node tag, and the tags that follow are child node tags.

BATCH_JOB_OBJECT - Node Tag

Attribute	Description
AUTHOR	Displays in the batch scheduler's User ID column and is a useful place to show a comment or the name of the XML file that generated the batch.
BATCH_JOB_ID	A random number assigned to the batch
BATCH_ NAME	The name of batch. For example, "ReportStore:\\SchdApi\Batches\TestBatch3".
REPORT_SERVER_ NAME	The name of the report server where the batch is located
UNSAVED_BATCH	The value of this attribute must be set to "No".

RUN_OPTIONS - Child Node Tag

Attribute	Description
FREQUENCY	The value of this attribute should be "1".
RUN_IMMEDIATELY	The value of this attribute should be "Yes".

NOTIFICATION / EMAIL - Child Node Tag

Attribute	Description
ATTACH_RESULTS	Enter a "Yes" or "No" value, depending on whether you want to attach PDF or HTML files generated to the e-mail.
RECIPIENTS	A comma-separated list of recipients e-mail addresses.
SENDER	The sender's e-mail address
SUBJECT	The subject of the e-mail.

JOB_STATUS - Child Node Tag

This must be copied as it is shown in the following example, `JOB_STATUS CURRENT_STATUS="Pending"`

JOB_OBJECT - Child Node Tag

Attribute	Description
OBJECT_ID	Leave this attribute blank.

DATA_SOURCE_USER_CREDENTIALS - Child Node Tag

Attribute	Description
DS_PASSWD	The encrypted data source password from an existing batch or that you generate using the command line utility.
DS_USER_NAME	The data source user whose credentials are used for running the reports/books in the batch.

HR_USER_CREDENTIALS - Child Node Tag

Attribute	Description
HR_PASSWD	The encrypted Financial Reporting user password from an existing batch or that you generate using the command line utility.
HR_USER_NAME	The Financial Reporting user whose credentials are used for running the reports/books in the batch.

OUTPUT_OPTIONS - Child Node Tag

This XML tag enables you to select the format of the batch output.

CHILD NODE - HTML

Attribute	Description
HTML VALUE	Enter a "Yes" or "No" value, depending on whether you want to generate HTML output for the batch.

CHILD NODE - PDF

Attribute	Description
PDF VALUE	Enter a "Yes" or "No" value, depending on whether you want to generate PDF output for the batch.

CHILD NODE - SAVE_AS_SNAPSHOT

Attribute	Description
SAVE_AS_ SNAPSHOT VALUE	Enter a "Yes" or "No" value, depending on whether you want to save the snapshot output in the repository.
SAVE_NAME	The Folder Name where the Snapshots are to be stored. This must be specified in `ReportStore:\\` format. If SAVE_NAME = "", the snapshot output is saved to the same folder as the original object.
USER_NAMES	Comma-separated Financial Reporting user names who are granted access to the snapshot output.
GROUP_NAMES	Comma-separated Financial Reporting group names which are granted access to the snapshot output. A special system-defined group, called Everyone, includes all Financial Reporting users and can be used to ensure that all users have access to a snapshot output.
SUBJECT_ TOKENS	This attribute can be left blank or removed from the text file. **Note:** This attribute is ignored if USER_NAMES or GROUP_NAMES is used.

CHILD NODE - PRINT

Attribute	Description
PRINT NAME	The printer name, if the PRINT VALUE attribute is set to "Yes". **Note:** You must make sure that this printer is available to the scheduler server.
PRINT VALUE	Enter a "Yes" or "No" value, depending on whether you want to generate printed output for the batch.

USER_POV - Child Node

This node is optional. If the User POV is not specified here, the USER POV of the data source user specified in the text file is used instead.

Caution! This should be modified only by power users. Specifying a partial USER POV does not work.

Note: In the USER_POV section of the XML file, HIDDEN="0' indicates a dimension which is on the POV and therefore is a candidate or value to be set in the XML file. The value to be changed is "_" in this example.

Setting XBRL Schema Registration

This task is used to update and maintain XBRL schema registration. The update enables you to define XBRL line items for an XBRL instance report. For a description on updating XBRL schema registration, see the *Oracle Enterprise Performance Management Workspace User's Guide.*

CHILD NODE - KEY

Attribute	Description
NAME	This is: <datasourceServer>:<AppName>:<DatabaseName>: <DatsourceType> REF_COUNT should be set to 1.

CHILD NODE - POV

Attribute	Description
ALIASTABLE	The Alias Table name
APPNAME	The name of the data source application

Attribute	Description
DBNAME	The name of the database
DIMCOUNT	The total Number of Dimensions in that Database
DRIVERTYPE	The type of the data source driver
SERVERNAME	The name of the data source Server
ORGBYPERIOD_ENABLED	0 or 1 depending on whether the ORG By period is enabled. This is used only if HFM is the data source.
ORGBYPERIOD_PERIOD	The period member name. This is dependent on the previous attribute.
ORGBYPERIOD_SCENARIO	The scenario member name. This attribute is dependent on whether Org by Period is enabled.
ORGBYPERIOD_YEAR	The year member name. This attribute is dependent on whether Org by Period is enabled.
SHOW_ALIAS	Leave this value as 0.
SHOW_DIMNAME	Leave this value as 1.
SHOW_MEMBERDESC	Leave this value as 0.
SHOW_MEMBERNAME	Leave this value as 1.
VERSION	The version number for Financial Reporting

DIMENSION - Child Node

Attribute	Description
DISABLED	This should be set to 0.
HIDDEN	This should be set to 1.
NAME	The name of the Dimension

METADATAEXPRESSION - Child Node

Attribute	Description
DATA	The member selection query, must be in the following format: <DIMENSION DISABLED="0" HIDDEN="0" NAME="Market"> <METADATAEXPRESSION VALUE="<?xml version="1.0" encoding="UTF-8"?> <COMPOSITEOPERATION TYPE="MemberQuery"><OPERATION TYPE="Select"><MULTIVALUE><STRING>Name</STRING></ MULTIVALUE><STRING>Market</STRING></OPERATION><COMPOSITEOPERATION TYPE="Filter"><OPERATION TYPE="Member"><STRING>New York</STRING><STRING>Market</ STRING></OPERATION></COMPOSITEOPERATION></COMPOSITEOPERATION>" />

Attribute	Description
	</DIMENSION>

RMI Encryption Implementation

You can encrypt passwords entered in the Win32 Client by uncommenting the following line in the `fr_repserver.properties` file:

`RMI_Encryptor=com.hyperion.reporting.security.impl.HsRMICryptor`

After enabling or disabling encryption, all Financial Reports services must be restarted.

The following text appears in the `fr_repserver.properties` file:

```
# Specify the class name of encryption
algorithm to encrypt values
# passed in RMI calls.
#
#
By default, no encryption is applied.
#
#
To use the encryption provided with the product, set the value to
# com.hyperion.reporting.security.impl.HsRMICryptor
#
# To use any other custom encryption algorithm, extend your
# implementation from
# com.hyperion.reporting.security.IHsRMICryptor
interface.
#
This interface defines two methods
# public String encrypt(String value) throws HyperionReportException;
# public String decrypt(String value)
throws HyperionReportException;
#
#RMI_Encryptor=com.hyperion.reporting.security.impl.HsRMICryptor
```

Increasing the ADM Maximum Property Value Length

In rare cases where Financial Reporting retrieves member information from the data source, the returned information may be too large to retrieve. This may cause error messages and/or a Financial Reporting server to shut down.Some examples of large retrievals:

● Hyperion Financial Management Cell Text

● Hyperion Essbase outline member formulas

The error message that is received is the following, where "xxxx" is the size in kilobytes of the information that is being retrieved.

"Property value is too long "xxxx" > 4,096, please consider increasing MAX_PROPERTY_VALUE_LENGTH in ADM.Properties" errror message.

To remedy this situation, the ADM.properties file needs to be adjusted to accommodate the larger information retrievals.

➤ **To adjust the ADM.properties file**

1. Open the ADM.properties file in a text editor. The file is typically located in the following location:

   <HYPERION HOME>\common\ADM\<BI+ VERSION>\lib\ADM.properties

2. Locate the line "MAX_PROPERTY_VALUE_LENGTH".

3. Increase the default setting of 4 (as in 4K). For example, if the error message is as follows: "Property value is too long 9503 > 4096, increasing the value to 10 resolved the issue.

   Note: The default value of 4K and the above error message indicating the property size of 9503 is greater than the default value of 4096, by increasing to 10K, the new property value size is large enough to accommodate the formula.

Printing PDF Files

In order to support the previewing or printing of PDF files for cell documents and external content in books, one of the following Ghostscript versions is required on the Financial Reporting print server:

- AFPL Ghostscript 8.51
- AFPL Ghostscript 8.14
- GNU Ghostscript 7.06

The Financial Reporting server will search the registry for the supported Ghostscript version in the order listed above, however you can override the search order:

➤ **To override the search order:**

1 Using `regedit.exe`, **create the following registry key:**

   HKEY_LOCAL_MACHINE\SOFTWARE\AFPL Ghostscript\FRCustom

2 **Create a new string value named** "GS_DL"**L.**

3 **The value for** "GS_DLL" **should be the full path to the preferred Ghostscript dll file named** "gsdll32.dll". **For example:**

   C:\Program Files\gs\gs8.14\bin\gsdll32.dll

Microsoft Word Template

Microsoft Word template provides the ability for Text (.txt) files to be printed. When selecting Print, the existing routine that prints Word documents is used to print the text file. After the

print job has finished, the file is closed without saving, preserving the template for the next text file. Text file printouts will have a consistent look and feel when shown in PDF preview.

The Word template, `FR_TextTEmplate.doc`, is located in the Financial Reporting print server in the `${home.reports}/bin/` folder. The template contains some pre-formatted content which can be customized.

Template Settings

By default, the Word template has the following settings:

- The "`<<FR_content>>`" string is the only content in the body of the document.
- The text is formatted to Courier New, 10pt font.
- Print option is Portrait with 1 inch margins.
- The footer is set to "print date and time" and current page number. These settings are updated and shown in all text files printed through the Financial Reporting print server.

Elements of the template that you can customize:

- You can customize the default formatting such as font, tabs, margins.
- You can control the page setup of the template. For example, always print in landscape mode or set the paper size to A4.
- You can customize the headers and footers. For example, show the page numbers in the footer, which is automatically updated when generating for PDF preview in books and reports.
- You can customize the pre-existing content of the template. For example, insert a standard confidentiality clause at the end of every printout (see Customizing the Template).
- You can add images or backgrounds to the template. For example, a company logo.

Customizing the Template

To protect against the Word document becoming corrupt, make a backup before customizing the template. The template can be opened through Microsoft Word. Any saved changes are applied the next time a text file is printed by the Financial Reporting server. When a text file is selected to print, the Financial Reporting print server opens the `FR_TextTemplate.doc` file and looks for the string, `<<FR_content>>`. If found, the context of the text file is inserted in that location, replacing the string. If the string is not found, the contents of the text file is inserted at the end of the Word document. If there is pre-existing content in the template, it is shown before the data in the text file.

We recommend that you always include the `<<FR_content>>` string in the template. This allows you to control the font and paragraph settings of the content in the inserted text file. The content inherits the formatting that is currently in the `<<FR_content>>` string.

Note: You do not need to restart the Financial Reporting print server when a change is made.

➤ To Customize the template:

1 **Open Microsoft Word.**

2 **Select** **File**, **then** **Open** **and navigate to the** `FR_TextTemplate.doc` **document located in the (default)** `${home.reports}/bin/` **folder, and click** **Open**

3 **To change formatting, highlight** `<<FR_content>>` **and make your formatting changes.**

4 **Click** **Save**.

> **Note:** If you save the template to a different location than the default location, you must indicate the new location in the `fr_printserver.properties` file:
> `TextPrintTemplate=D:/Projects/Orion/Snapshots/OrionMain/orion/`
> `source/ui/z-OCXs/FR_TextTemplate.doc`

Showing Cell Text, Planning Unit Annotations and Financial Reporting Documents in Annotations

A designer can globally control whether a report will automatically query for, and return Cell Text, Planning Unit Annotations and/or document attachments as Annotations in a given Financial Reporting report. Based on the `.properties` settings, the Report Property Sheet displays a set of controls than can turn this functionality on or off on a report by report basis. See "Report Properties" on page 325. The global settings in `fr_global.properties` are:

- If `AllowCellTextAsAnnotation=true`, the Cell Text check box on the Report Property sheet is shown (for Financial Management and Planning, not Essbase yet). The default setting will be unchecked (turned off).

- If `AllowPlanningUnitAnnotationsAsAnnotations=true`, the Planning Unit Annotations check box on the Report Property sheet is shown for Planning. The default setting will be unchecked (turned off).

- If the `AllowDocAttachmentsAsAnnotations=true`, the Document Attachments check box on the Report Property Sheet is shown for Financial Management. The default setting will be unchecked (turned off)).

A

Property Sheet Help

This appendix describes the property sheets in Reporting Studio. It includes the following topics:

Report Properties

Use Report Properties to define properties for the report.

Table 53   Report Properties Sheet

Item	Use
Description	This is a display-only area that displays the report description after you save the report.
Header Height	Type a height for the online layout header.
Footer Height	Type a height for the online layout footer.

The following properties that display is based on what is enabled on the `fr_globlal.properties` file settings and on what data sources are referenced in the report. For information on globally setting the properties for displaying annotations, see "Showing Cell Text, Planning Unit Annotations and Financial Reporting Documents in Annotations" on page 324.

Show as Annotations: Cell Text	for Financial Management and Planning, select to show cell text in Annotations.
Show as Annotations: Planning Unit Annotations	For Planning, select to show Planning Unit Annotation in Annotations.

Item	Use
Show as Annotations: Document Attachments	For Oracle Hyperion Financial Management, Fusion Edition, select to show document attachments in Annotations.

Grid Properties

You can modify the properties of a grid using the following topics:

- Grid Properties - General Category
- Grid Properties - Suppression Category
- Grid Properties - Position Category

Grid Properties - General Category

Use the General category to format the selected grid.

Table 54   Grid Properties Sheet

Item	Use
Dimension Layout	Assign dimensions to the row, column, and page axes.
Database Connection	Displays the database name the grid is accessing.
Headings - Member Labels	Perform an action: ● Select **Member Name** to show member names as the heading. ● Select **Alias:Long Names** to show the alias as the heading. Alias is used with Oracle Essbase or Planning Details database connection. ● Select **Description** to show the description as the heading. Description is used with a Financial Management data source. It is a default setting with SAP BW. ● Select **Both** to show the member name and alias / description.
Headings - Row Headings Before	Select the column before which you want to display row headings. For example, select the third column (C), to place the heading before the third column (C). Columns are represented as alphabet characters (A, B, C, and so on).
Headings - Suppress Repeats	Select to suppress repeated row or column headings. When selected, one column or row heading is displayed across multiple columns or rows. When deselected, the column or row heading is repeated in each column or row.
Headings - Alias Table	This item is used only in Oracle Essbase and Planning Details. Select the alias table to use when showing aliases. By default, this option is set to the default alias table for the database connection.
Column Width	Enter the width of all columns in the grid.
Row Height	Enter the height of all rows in the grid.
Sort	Click to enable sorting on a range of rows or columns, then click **Setup** to select sorting options.

Item	Use
Autosize	Select to enable the system to expand the grid to display all data when viewing or printing. Deselect to control the size of the grid manually. If Autosize is not selected, the report contains scroll bars when viewed online, or it is displayed on separate pages when printed. **Note:** Autosize will not expand the grid in Workspace view if Freeze Grid Headers is also selected. To view the report within the entire Workspace area, expand the grid size in Reporting Studio.
Freeze Grid Headers	Select a grid, then select Freeze Grid Headers to keep row and column headings visible when viewing HTML reports in Workspace. If you want to view the report within the entire Workspace area, you must expand the grid size inReporting StudioStudio.
Grid POV	Select to display the grid POV bar. The grid POV bar is displayed below the grid title bar.
Page Beak Before	Select to insert a page break above the grid. The grid is printed on the following page.
Link to Source Object	This check box is only enabled after the grid is saved to the repository and the Link to Source Object check box is selected. Deselect it to unlink the grid from its source object in the repository. **Caution!** You cannot reverse this action.
Add Related Content	Select the rows, columns, or data cells for which you want to provide a link to Related Content. From the Property sheet. Then select **Add Related Content**, and click **Setup** to provides access to another report or a URL through a hyperlink.
Drilldown to Fusion Financials	Select to show drilldown to Fusion Financial links in the report viewer as related content links. The default is when this setting is unselected.

Grid Properties - Suppression Category

Use the following properties to hide a grid, hide specific values in a grid's cells, and specify text variables for zero values in cells.

Table 55 Grid Properties - Suppression Category

Item	Use
Hide Grid	Select to hide, but not remove, the grid. The grid's title bar turns gray on the Design tab.
Suppression	You can select Basic and Advanced option for conditional suppression. Select **Basic Options** to suppress data based on any of the following methods: ● Select If Zero, Suppress to suppress all values that equal zero. If all data values in a given row or column equal zero, the entire row or column is suppressed. ● Select If Missing, Suppress, to suppress all cells that do not contain data. If all cells in a given row or column do not contain data, the entire row or column is suppressed. ● Select If Error, Suppress to suppress data in cells that cannot be retrieved or calculated because of errors. If all data values contain errors in a given row or column, the entire row or column is suppressed. Select **Advanced Options** to suppress data based on specific criteria, then select **Setup** to define criteria. For Oracle Hyperion Planning, Fusion Editiondata sources only: Select **Missing Blocks** to include a data query level flag called SuppressMissingBlocks in any ADM data query which gets issued to Planning for that grid. This property acts independently from any other suppression property and is available at the grid level only (not the row/column level).
Text Options	Enter a value in any of the following areas:

Item	Use
	• In **Zero Values**, enter a value to replace zero value cells.
	• In **No Data**, enter a value to replace empty cells.
	• In **Error**, enter a value to replace error value cells.
	• **Show Text Functions Errors**, select to enable errors to display for text functions that are placed in the grid. This is the default.

Grid Properties - Position Category

Use the Position category to position the selected grid on the report.

Table 56 Grid Properties - Position Category

Item	Use
Position Object on Report	Perform either of the following actions: • In **Horizontal**, select None or Relative to control the way the grid is printed on the page relative to other report objects. Select Left to position the grid on the left side of the report, select Center to position the grid in the center of the report, or select Right to position the grid on the right side of the report. • In **Vertical**, select None or Relative to control the way the grid is printed on the page relative to other report objects. Select Top to position the grid on the top of the report, select Middle to position the grid in the middle of the report, or select Bottom to position the grid on the bottom of the report.
Position of Expansions	Select one of the following options: • Select Before Parent to display expansions before the summary-level row or column. • Select After Parent to display expansions after the summary-level row or columns. This is the default setting.
Position of Auto Calculations	Select one of the following options: • Select Before Members to display the auto calculation row before the members. • Select After Members to display the auto calculation row after the members. This is the default setting.
Position of Supporting Detail	**Note:** This control is only displayed for a Planning Details database connection. Select one of the following options: • Select Members Before Parents to display supporting detail before the parent member. • Select Members After Parent to display supporting detail after the parent member. This is the default setting.

Page Properties

Use Page Properties to define properties for the Pages members. If a chart is linked to a grid with multiple page members, a new chart is printed for each page member if the Page Printing Position option is set to New Page - Top, New Page - Same, or Same Page.

Table 57   Page Properties

Item	Use
Member Labels	Select to display a label from the member as a heading, then select one of the following methods for displaying member labels: ● Select Member Name to show a label from the member as a heading. ● Select Alias: Default to show the alias as the heading. Alias is used with Oracle Essbase and Planning Details data sources. ● Select Description to show the description as the heading. Description is used with a Financial Management data source. ● Select Both to show the member name and alias / description.
Custom Heading	Select to define a custom heading for the row, then enter the text for the custom heading.
Insert Function button	Select to include a function in the custom heading.
Short Name for Entities	Select to display the short name for entities in your grid (Financial Management, Entity dimension only).
Format button	Click to open the Format dialog box, where you can specify options for the row.
Heading Height	Enter a value for the height of the heading row.
Page Printing Position	Select one of the following options to indicate how to print each page member: ● Select New Page - Top to print each page member on a new page starting at the top of the page. ● Select New Page - Same to print each page member on a new page starting at the same position as on the first page. ● Select Same Page to print each page member immediately following the previous page member.

Heading Row/Column Properties

Use Heading Row/Column Properties to format the heading of a selected data or formula row or column. The properties that are enabled depend on the type of cell you select. For example, for a formula heading cell, the Show Formula and Custom Heading options are enabled.

Table 58   Heading Row/Column Properties

Item	Use
Headings - Member Labels	This option is used only in a Data heading. Select to display a label from the member as a heading, then select one of the following methods for displaying member labels. ● Select Member Name to show a label from the member as a heading. ● Select Alias/Description to show the aliases/descriptions corresponding to the member name as the heading. ● Select Both to show the member name and alias/description as the heading.
Headings - Show Formula	Select to display the formula row or column.

Item	Use
Headings - Custom Heading	Select to define a custom heading for the heading, then enter the text for the custom heading.
Function button	Select to include a function in the heading.
Short Name for Entities	Select to display the short name for entities in your grid (Financial Management, Entity dimension only).
Allow Expansion	Select to enable expansions of data rows or columns in the report.
Auto Calculation	Select to enable auto calculation, then select the Setup button to insert an auto calculation row or column.

Row / Column Properties

Use Row and Column Properties to format the selected data or formula rows or columns. The properties that are enabled depend on the type of cell you select.

Table 59   Row/Column Properties

Item	Use
Database Connection	Shows the database connection name from which the row receives data.
Row Height / Column Width	Type the height for the selected rows, or type the width for the selected columns.
Hide Always	Select to hide the row or column when the report is viewed and in the printed output. The row is displayed only in the Report Designer.
Suppression Ignores Row / Column	Perform an action: ● To ignore the data in the hidden rows / columns, select this option. When evaluating suppression, no cells in the hidden rows / columns are evaluated. ● To include the data in the hidden rows / columns, deselect this option. When evaluating suppression, all cells in the hidden rows / columns that contain data are evaluated. **Note:** You can evaluate suppression based on hidden cells when you specifically reference the cells by using the Advanced Options method for conditional suppression.
Suppression	Select None, Show Always to turn suppression off. This is the default setting. Select Basic Options to suppress data based on any of the following methods: ● Select If Zero, Suppress to suppress all values that equal zero. If all data values in a given row or column equal zero, the entire row or column is suppressed. ● Select If Missing, Suppress to suppress all cells that do not contain data. If all cells in a given row or column do not contain data, the entire row or column is suppressed. ● Select If Error, Suppress to suppress data in cells that cannot be retrieved or calculated because of errors. If all data values contain errors in a given row or column, the entire row or column is suppressed. Select Advanced Options to suppress data based on specific criteria, then select Setup to define your criteria. For Oracle Essbase data source rows only. To return the Top N rows based on the values in a specified column, select a row, select**Top**, then select the value and the column.

Item	Use
Heading - Suppress Repeats	Select to suppress repeated row or column headings in the grid. When selected, the system shows one column or row heading across multiple columns and rows. When deselected, the column or row heading is repeated in each column or row.
Display Supporting Detail	**Note:** This control is only displayed for a data row using the Planning Details database connection. When selected, and Supporting Detail exists for one or more cells in the row, additional rows are inserted to show the Supporting Detail.
Allow Page Break Within	**Note:** This control is only displayed for a data row using the Planning Details database connection. It is enabled if you select Show Supporting Detail. When selected, a page break is allowed within the rows of Supporting Detail. When deselected, the member and all Supporting Detail are kept together. If the Supporting Detail is too long to fit on a page, the member and the Supporting Detail are moved to the next page.
	Note: For Auto Calculation rows, the Allow Page Break Within option is placed in the Auto Calculation dialog box so you can control the option by specific Auto Calculation. For more information, see .
Show Unary Operator	**Note:** This control is only displayed for a data row using the Planning Details database connection. It is enabled if you select Show Supporting Detail. When selected, the unary operator (+, −, /, *) is shown for all supporting detail rows.
Display Line Item Details	This option is used in Financial Management rows only. Select to include line item detail in the report.
Page Break Before	Select to insert a page break before the row, then perform an action:
	● For a row, select Position at Top to place remaining part of the grid at the top of the new page. For a column, select Position at Left to place remaining part of the grid to the left of the new page.
	● Select Same Position to place the grid in the same position where it is currently placed. For example, if a grid is placed half way down the page and you insert a page break with Same Position selected, the remaining part of the grid is displayed half way down on the second page.
Related Content Setup	Select Related Content Setup to create links to objects in J2EE, Web Analysis, or Financial Reporting, then click Setup to specify the links within Related Content Setup.
XBRL Context	This control is only displayed for a column if you enabled XBRL editing in the Preferences dialog box. Select XBRL Context to include information about the entity, units, period, and scenario (optional).
XBRL Line Item	This control is only displayed for a row if you enabled XBRL editing in the Preferences dialog box. Select XBRL Line Item to include information about XBRL line items, then click Setup to assign XBRL line items to the selected data or formula row.

Cell Properties

Use this property sheet to set properties for formula cells or data cells. The properties that are enabled depend on the type of cell you select in a grid.

Table 60   Cell Properties Sheet

Item	Use
Calculation order	Select one of the following options for specifying order of calculation:
	● Select Use the row formula if your want the row calculation applied to the cell.
	● Select Use the column formula if you want the column calculation applied to the cell.

Item	Use
	● Select Use a custom formula if you want to add a new formula.
Retrieve Cell Documents	For Oracle Essbase and Financial Management databases only, select this function to allow the ability to attach documents in Word, Excel, or PDF to the end of a report as well as insert a footnote into the report to add a description about the attached documents.
Add Related Content	Select Add Related Content to create links to objects in J2EE, Web Analysis, or Financial Reporting, then click Setup to specify the links within Related Content Setup.
XBRL Context	This control is only displayed if you enabled XBRL editing in the Preferences dialog box. Select XBRL Context to modify XBRL context of cells, then perform an action: ● To exclude XBRL context settings for the selected cells, click None. ● To revert to the default XBRL context setting of the column, click Use Column Context. ● To change the XBRL context settings for the selected cell, click Use Cell Context, then click Setup. For information on setting XBRL context, see "Managing XBRL Context" on page 284.

Text Row / Column Properties

Use this property sheet to format selected text rows and columns.

Table 61   Text Row/Column Properties Sheet

Item	Use
Row Height / Column Width	Type the height for the selected rows, or type the width for the selected columns.
Hide Always	Select to hide the row or column when the report is viewed and in the printed output. The row is displayed only in Oracle Hyperion Financial Reporting Studio, Fusion Edition.
Suppression Ignores Row / Column	Perform an action: ● Select to ignore the data in the hidden rows / columns. When evaluating suppression, no cells in the hidden rows / columns are evaluated. ● Deselect to include the data in the hidden rows / columns. When evaluating suppression, all cells in the hidden rows / columns that contain data are evaluated. **Note:** You can evaluate suppression based on hidden cells when you specifically reference the cells by using the Advanced Options method for conditional suppression.
Suppression	Select None, Show Always to turn suppression off. This is the default setting. Select Basic Options to suppress data based on any of the following methods: ● Select If Zero, Suppress to suppress all values that equal zero. If all data values in a given row or column equal zero, the entire row or column is suppressed. ● Select If Missing, Suppress, to suppress all cells that do not contain data. If all cells in a given row or column do not contain data, the entire row or column is suppressed. ● Select If Error, Suppress, to suppress data in cells that cannot be retrieved or calculated because of errors. If all data values contain errors in a given row or column, the entire row or column is suppressed. Select Advanced Options to suppress data based on specific criteria, then select Setup to define your criteria.

Item	Use
Adjust Row Height to Fit	Enabled for Text Rows only. When selected, enables text cells in grids to span multiple pages.
Page Break Before	Select to insert a page break before the row, then specify one of the following positions: ● For a row, select Position at Top to place remaining part of the grid at the top of the new page. For a column, select Position at Left to place remaining part of the grid to the left of the new page. ● Select Same Position if you want the grid to be placed in the same position as it is currently placed. For example, if a grid is placed half way down the page and you insert a page break with Same Position selected, the remaining part of the grid is displayed half way down on the second page.

Text Cell Properties

Use this property sheet to format a text cell.

Table 62   Text Cell Properties Sheet

Type	Description
Item	Use
Text	Enter text.
Insert Function button	Click to display the Insert Functions Editor, where you can insert a function into the text cell.

Chart Properties

Use this property sheet to specify the chart type, define the data range, and format the selected chart.

Table 63   Chart Properties Sheet

Item	Use
Chart Type	
Grid	Select the name of the grid to reference.
Legend Items from Grid	Select one of the following options: ● Select Row(s) to reference a series of rows. ● Select Column(s) to reference a series of columns.
Data Range for Row(s) and Column(s)	Select the columns and rows to specify the data to include in the chart. ● For a combo chart, select a bar data range and a line data range. ● For a pie chart, select a row or column.
Auto Calculation	Select to include auto calculations from the data set.

Item	Use
Format Charts	Select to specify formatting options for the selected chart.
Page Break Before	Select to insert a page break before the chart. The chart is printed on a new page.
Position Object on Report	Select from the following options: ● Horizontal (None, Relative, Left, Center, or Right) ● Vertical (None, Relative, Top, Middle, or Bottom) For more information, see "Positioning Charts on Reports" on page 76.

Image Properties

Use this property sheet to format the selected image.

Table 64 Image Properties Sheet

Item	Use
Image - Select Image	Click to select an image saved on a file system.
Image - Stretch	Select to enable the stretch function for the selected image. You can expand or shrink the image to the size of the image's border.
Position Object on Report - Horizontal	Select one of the following options to set the horizontal positioning of the image: ● Select None to position the printed image at its current location regardless of whether report objects above it or to its left change in size ● Select Relative to position the printed image relative to any report object to its left ● Select Left to position the image on the left side of the report ● Select Center to position the image in the center of the report ● Select Right to position the image on the right side of the report.
Position Object on Report - Vertical	Select one of the following options to set the perpendicular positioning of the image: ● Select None to position the printed image at its current location regardless of whether report objects above it or to its left change in size ● Select Relative to position the printed image relative to any report objects above it ● Select Top to position the image on the top of the report ● Select Middle to position the image in the middle of the report ● Select Bottom to position the image on the bottom of the report
Page Break Before	Select to insert a page break before the image. The image is displayed on a new page when viewed or printed.
Link to Source Object	This check box is only enabled after the image is saved to the repository and the Link to Source Object check box is selected. Clear it to unlink the image from its source object in the repository. **Caution!** You cannot reverse this action.

Text Properties

Use this property sheet to modify the properties of a text object.

Table 65   Text Properties Sheet

Item	Use
Borders & Shading - Show Border	Select to place a border around the text box, or clear to remove a border around the text box.
Borders & Shading - Shading	Click to select a color from the drop-down list to apply to the text box.
Insert Function	Click to display the Insert Functions Editor where, you can insert a function into the text box.
Show Text Function Errors	Select to enable errors to display for text functions for text objects. This is the default.
Autosize	Select to expand the text box when you preview or print the report so that all of the text contained in it is displayed.
Page Break Before	Select to display the text box on the top of the next page when you preview or print the report. If you are saving a report to HTML, a new HTML page is created before the text box.
Link to Source Object	This check box is only enabled after the text object is saved to repository and the **Link to Source Object** check box is selected. Clear the check box to unlink the text box from its source object in the repository. You cannot reverse this action.
Repeat with Grid	This functionality is only enabled when there is at least one grid in the report that has one or more Page dimensions defined. Click on the check box and select the associated grid to display the text box for every member in the Page dimension(s) of the grid, in a similar manner as a text box in the header and footer. If this setting is not enabled, a text box in the report body will only display with the first Page dimension member selection. When enabled, the text box displays for every Page dimension member selection. In addition, when using a text function such as MemberName with a Page dimension, the Current keyword will retrieve the appropriate Page member.
Position Object on Report -Horizontal	Select one of the following options: ● Select None to position the printed text at its current location regardless of whether report objects above it or to its left change in size ● Select Relative to position the printed text relative to report objects to its left ● Select Left to position the text box on the left side of the report ● Select Center to position the text box in the center of the report ● Select Right to position the text box on the right side of the report.
Position Object on Report -Vertical	Select one of the following options: ● Select None to position the printed text at its current location regardless of whether report objects above it or to its left change in size ● Select Relative to position the printed text relative to report objects above it ● Select Top to position the text box at the top of the report ● Select Middle to position the text box in the middle of the report ● Select Bottom to position the text box on the bottom of the report

Row and Column Template Properties

Use this property sheet to specify inheritance, set precedence, and to unlink the template from the source object.

Table 66 Row and Column Template Properties Sheet

Item	Description
Item	Use
Inherit Formatting from	Select to apply formatting to a row or column template by referencing a row or column in the grid. The default row or column is displayed and can be changed.
Precedence for	This option is enabled only if a row template and column template intersect. Select to apply format and formula precedence to the selected row or column template. ● To set formatting precedence, select Row Template to apply the formatting of the intersecting row template, or select Column Template to apply the formatting of the intersecting column template. ● To set formula precedence, select Row Formula to apply the formula of the intersecting row template, or select Column Formula to apply the formula of the intersecting column template.
Link to Source Object	Clear the check box to unlink the row or column template from its source object in the repository. **Caution!** You cannot reverse this action.

Frequently Asked Questions

In This Appendix

This appendix contains a list of commonly asked questions and answers forFinancial Reporting:

Why are dimensions listed on the user POV when changing them has no effect on the grid?

Multiple grids can be included in a report, where one or more of the grids are affected by changes to those dimensions on the user POV.

Notice in the following figure, the two grids look identical, but have different values for Measures->Year.

Figure 26   Multiple Grids in One Report

If you go back to the Report client and turn on the grid POV, you see that the members for Product, Market, and Scenario have been set for Grid2. Thus, a user changing any of those dimensions in the Reports Designer workspace has no effect on Grid2.

Therefore, it is probably useful for the designer of the report to indicate the user of page dimensions in a text box or row/column headers.

Figure 27   Grid POV Enabled
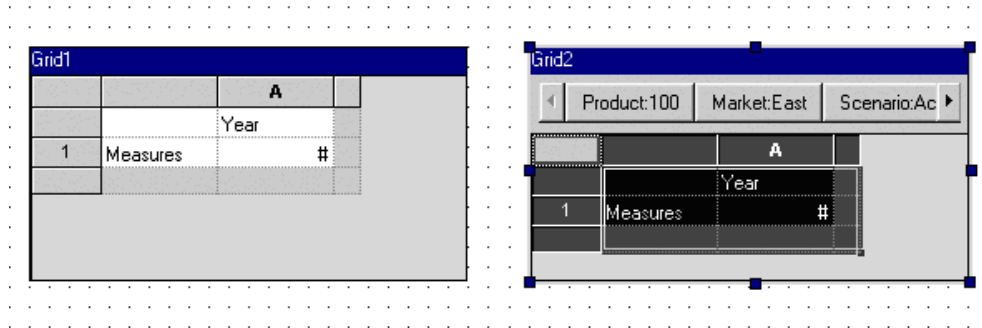
Why are the grid POVs not displayed in the Report Designer Workspace?

If the administrator chooses to disable the grid POV, Workspace viewers cannot see it. In the following figure, the grid POV is not selected and the grid POV is not displayed in Workspace:
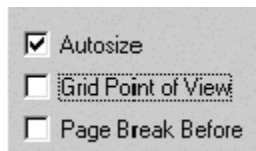
How will a user running Workspace know that the dimension is set on the grid POV?

The Report designer should design the grid with a text row footnote that the grid POV for a dimension is set to a particular member in the grid. Another option for the Report designer is to put the dimension value into the row or column headers (see the following figure for an example.) If the designer turned off the grid POV, the column description (using a custom heading) would correctly denote that the grid is displaying Actual for the Scenario dimension.

Figure 28   Report with dimension value in header

How can a report be designed so that any changes to a user's user POV changes the members selected from a row, column, or page axis on a grid?

Use the CurrentPOV member for the selected axis or choose a member selection function with CurrentPOV as the member parameter. When the report runs, the axis value is taken from the user POV. You can design a grid so that all axis values are taken from the user POV, making the report completely dynamic on a per user basis.

Why do you need a book POV?

It allows anyone running the book to use the same default values for all grids in all reports in the book simultaneously each time the book is run. It is specific to a database connection for a book, but not specific to any report or grid object in a report in that book. As the book POV values are saved with the book itself, changes to the book POV do not affect the book designer's user POV.

What are Report Member Selections?

The Report Member Selections define the values for any dimensions not on a grid's row, column, or page axis or set in the grid POV for all Grids in a specific report in the book.

Why not just call Report Member Selections the report POV?

All POVs allow a single member to be set for a dimension. Report Member Selections allow multiple members to be set for a dimension. If multiple members or member selection functions resulting in multiple members are set for a dimension, the report in the book is run for each member. If multiple members or member selection functions resulting in multiple members are set for multiple dimensions, the report in the book is run for all combinations of those members.

Just like a grid is generated for each combination of the members on the page axis in a report, a report is generated for each combination of the members set using Report Member Selections in a book.

Why do you need a batch POV?

It allows anyone scheduling the batch to use the same default values for all grids in all reports in the batch simultaneously when the batch is run. It is specific to a database connection for a batch, but not specific to any report or grid object in a report in that batch. Since the batch POV values are only saved when the batch is scheduled, you can set different values for the same batch. Changes to the batch POV do not affect the batch designer's user POV. Also, the changes to the batch designer's user POV do not affect the batch POV.
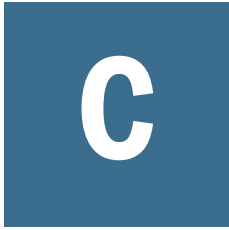
C Currency Table

This appendix lists and describes the currency symbols that come prepopulated with Oracle Hyperion Financial Reporting, Fusion Edition.

Note: Finland, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Spain, Belgium, Austria, Cyprus, Slovenia, Malta, Ireland and Portugal use the European euro currency.

Table 67 Currency Table

Country	Currency Name	Currency Symbol	ISO Code
Argentina	peso	$	ARS
Australia	dollar	A$	AUD
Austria	schilling	S	ATS
Belgium	franc	BEF	BEF
Brazil	real	R$	BRL
Canada	dollar	Can$	CAD
Chile	peso	Ch$	CLP
China	yuan	Y	CNY
Denmark	krone	Dkr	DKK
Egypt	pound	£E	EGP
European Union	European Currency Unit	Euro	XEU
Finland	markka	mk	FIM
France	franc	F	FRF
Germany	deutsche mark	DM	DEM
Greece	drachma	Dr	GRD
Hong Kong	dollar	HK$	HKD
India	rupee	Rs	INR

Country	Currency Name	Currency Symbol	ISO Code
Indonesia	rupiah	Rp	IDR
Ireland	punt	IR£	IEP
Israel	new shekel	NIS	ILS
Italy	lira	Lit	ITL
Japan	yen	¥	JPY
Korea (South)	won	W	KRW
Luxembourg	franc	LuxF	LUF
Malaysia	ringgit	RM	MYR
Mexico	peso	Mex$	MXP
Netherlands	guilder	fl	NLG
New Zealand	dollar	NZ$	NZD
Norway	krone	NKr	NOK
Philippines	peso	Php	PHP
Poland	zloty	Zl	PLN
Portugal	escudo	Esc	PTE
Russia	ruble	R	RUR
Singapore	dollar	S$	SGD
South Africa	rand	R	ZAR
Spain	peseta	Ptas	ESP
Sweden	krona	SEK	SEK
Switzerland	franc	SwF	CHF
Taiwan	new dollar	NT$	TWD
Thailand	baht	Bht	THB
Turkey	lira	TL	TRL
United Kingdom	pound	£	GBP
United States of America	dollar	$	USD

Glossary

! *See bang character (!).*

#MISSING *See missing data (#MISSING).*

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 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.

accounts dimension A dimension type that makes accounting intelligence available. Only one dimension can be defined as Accounts.

active service A service whose Run Type is set to Start rather than Hold.

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 created on-the-fly by an end user.

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 (JE).*

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 residing 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 An alternative name. For example, for a more easily identifiable column descriptor you can display the alias instead of the member name.

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 and/or reporting requirements.

application currency The default reporting currency for the application.

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 within Profitability and Cost Management.

attribute 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 point in 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.

bar chart A chart that can consist of one to 50 data sets, with any number of values assigned to each data set. Data sets are displayed as groups of corresponding bars, stacked bars, or individual bars in separate rows.

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 A container that holds a group of similar Financial Reporting documents. Books may specify dimension sections or dimension changes.

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 two 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 displays information to the user such as system availability, notification of application refresh, or application backups.

budget administrator A person responsible for setting up, configuring, maintaining, and controlling an application. Has all application privileges and data access permissions.

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 member in MaxL DML A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

calculated member in MaxL DML A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

calculation The process of aggregating data, or of running a calculation script on a database.

Calculation Manager A module of Performance Management Architect that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment.

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 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 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 (CDF)*.

CDM See *custom-defined macro (CDM)*.

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 A graphical representation of spreadsheet data. The visual nature expedites analysis, color-coding, and visual cues that aid comparisons.

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 that where 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.

clustered bar charts Charts in which categories are viewed side-by-side; useful for side-by-side category analysis; 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 A vertical display of information in a grid or table. A column can contain data from one field, derived data from a calculation, or textual information.

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.

configuration file The security platform relies on XML documents to be configured by the product administrator or software installer. The XML document must be modified to indicate meaningful values for properties, specifying locations and attributes pertaining to the corporate authentication scenario.

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) The consolidation file is 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 Identifies 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 allows users to Browse and select content to be placed in 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 group 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 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 with the dollar (1* 0.923702). After conversion, the European euro amount is .92.

Currency Overrides In any input period, the selected input method can be overridden to enable input of that period's value as Default Currency/Items. To override the input method, enter a pound sign (#) either 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 (CDM)*.

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 (CDF)*.

cycle through To 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 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, there is one FDM data load location 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 Prevents changes to data according to specified criteria, such as 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 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 types of analysis 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 Define the unit scale of data. For example, if you select to define your analysis in Thousands, and enter "10", this 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 Within a Profitability and Cost Management assignment, the destination is the receiving point for allocated values.

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 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, 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 A driver is an allocation method that describes the mathematical relationship between the sources that utilize the driver, and the destinations to which those sources allocate cost or revenue.

duplicate alias name A name that occurs more than once in an alias table and that 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 The multiple occurrence 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 A member 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 A member 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* and *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.

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 A numeric value for converting one currency to another. For example, to convert 1 USD into EUR, the exchange rate of 0.8936 is multiplied with the U.S. dollar. The European euro equivalent of $1 is 0.8936.

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 one point in 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's Hyperion applications with user information stored outside the applications, typically in a corporate directory such as MSAD or NTLM.

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.

Favorites gadget Contains links to Reporting and Analysis documents and URLs.

field An item in a data source file to be loaded into an Essbase database.

file delimiter Characters, such as commas or tabs, that separate 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.

folder A file containing other files for the purpose of structuring a hierarchy.

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 Visual characteristics of documents or report objects.

format string In Essbase, a method for transforming the way cell values are displayed.

formula A combination of operators, functions, dimension and member names, and numeric constants calculating database members.

frame An area on the desktop. There are 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 A routine that returns values or database members.

gadget Simple, specialized, lightweight applications that provide easy viewing of EPM content and enable access to core Reporting and Analysis functionality.

genealogy 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 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

head up display A mode that shows your loaded Smart Space desktop including the background image above your Windows desktop.

highlighting Depending on your configuration, chart cells or ZoomChart details may be highlighted, indicating value status: red (bad), yellow (warning), or green (good).

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.

host A server on which applications and services are installed.

host properties Properties pertaining to a host, or if the host has multiple Install_Homes, to an Install_Home. The host properties are configured from the CMC.

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, 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 Indicates changes in child entities consolidating into parent entities.

implied share A member with one or more children, but only one is consolidated, so the parent and child share a value.

import format In FDM, defines the structure of the source file which 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 service A service suspended from operating.

INACTIVE status Indicates entities deactivated from consolidation for the current period.

inactive user A user whose account has been 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. Contains pointers to data blocks.

input data Data loaded from a source rather than calculated.

Install_Home A variable for the directory where EPM System products are installed. Refers to one instance of an EPM System product when multiple applications are installed on the same computer.

integration Process that is run to move data between EPM System products using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and 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, etc.), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection files (.oce).

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 if the accounts are in, or out, of 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 non-intersecting dimensions, the non-intersecting 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.

intrastage assignment Assignments in the financial flow that are assigned to objects 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 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 Pages.

KeyContacts gadget 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.

latest A Spreadsheet key word 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 Used to designate 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 of liability accounts include accrued expenses, accounts payable, and long term debt.

life cycle management The process of managing application information from inception to retirement.

Lifecycle Management Utility A command-line utility for migrating applications and artifacts.

line chart A chart that displays one to 50 data sets, each represented by a line. A line chart can display each line stacked on the preceding ones, as represented by an absolute value or a percent.

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 task flow, 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*.

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 (LRO)*.

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 and 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 Data models 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, contains one or more logic accounts that are generated after a source file is loaded into FDM. Logic accounts are calculated accounts that are derived from the source data.

LRO *See linked reporting object (LRO)*.

managed server An application server process running in its own Java Virtual Machine (JVM).

manual stage A stage that requires human intervention to complete.

Map File Used to store 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 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 Data definition language used by Essbase for batch or interactive system-administration tasks.

MaxL DML 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) The language that give instructions to OLE DB for OLAP- compliant databases, as SQL is used for relational databases. When you build the OLAPQuery section's Outliner, Interactive Reporting Clients translate requests into MDX instructions. When you process the query, MDX is sent to the database server, which returns records that answer your query. *See also SQL spreadsheet*.

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 such members as Jan, Feb, and Qtr1.

member list A named group, system- or user-defined, that references members, functions, or member lists within a dimension.

member load In 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 Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.

metric A numeric measurement computed from business data to help assess business performance and analyze company trends.

migration The process of copying applications, artifacts, or users from one environment or computer to another; for example, from a testing environment to a production environment.

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 (Multipurpose Internet Mail Extension) 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 type is determined by the file extension or HTTP header. Plug-ins tell browsers what mime types they support and what 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 non-dimensional 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.

monetary A money-related value.

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 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.

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.*

note Additional information associated with a box, measure, scorecard or map element.

Notifications gadget Shows notification message history received from other users or systems.

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 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 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.

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.

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. 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 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 both entities and associated with at least one node, they have entity, node, and parent information associated with them.

partition area A sub cube 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 Identifies the extent to which an entity is controlled within the context of its group.

percent ownership Identifies 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).

pie chart A chart that shows one data set segmented in a pie formation.

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 The ability to 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 Planners, who comprise the majority of users, 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.

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 prior to 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 Displays 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 EPM System 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.

property A characteristic of an artifact, such as size, type, or processing instructions.

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 (PVA)*.

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 Information requests from data providers. For example, used to access relational data sources.

query governor An Essbase Integration server parameter or Essbase server configuration setting that controls the duration and size of queries made to data sources.

range A set of values including upper and lower limits, and values falling between limits. Can contain numbers, amounts, or dates.

reciprocal assignment An assignment in the financial flow that also has the source as one of its destinations.

reconfigure URL URL 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. Can be balanced, balanced by entity, or unbalanced.

Related Accounts 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 Stores 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.

RSC services Services that are configured with Remote Service Configurator, including Repository Service, Service Broker, Name Service, Event Service, and Job Service.

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, and Forecast2).

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. From highest to lowest, these levels are as follows: the entire system (Essbase Server), applications on Essbase servers, 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 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.

scraping An inspection of a data source to derive the most basic metadata elements from it. *Contrast with introspection.*

Search gadget Searches the Reporting and Analysis repository. The Search gadget looks for a match in the document keywords and description, which are set when you import a document.

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, Netegrity SiteMinder) that protects corporate Web resources.

security platform A framework enabling 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.

Servlet Configurator A utility for configuring all locally installed servlets.

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 Part of the Shared Services database, the Shared Services Registry stores and re-uses information for most installed EPM System products, including installation directories, database settings, deployment settings, computer names, ports, servers, URLs, and dependent service data.

Shared Workspace Page Workspace Pages shared across an organization which 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.

single sign-on Ability to access multiple EPM System products after a single login using external credentials.

smart slice In Smart View, a reusable perspective of a data source that contains a restricted set of dimensions or dimension members.

Smart Space client software Runs on the client's computer and provides gadgets, instant collaboration and access to the Reporting and Analysis repository. It is composed of the Smart Space framework and gadgets.

Smart Space Collaborator A service that enables users or systems to send messages and share Reporting and Analysis repository content. The message can take many forms, including instant message style discussions, meetings, and toast messages.

smart tags Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In EPM System products, smart tags can also be used to import Reporting and Analysis content, and access Financial Management and Essbase functions.

SmartBook gadget Contains documents from the Reporting and Analysis repository or URLs. All documents are loaded when the SmartBook is opened so you can access all content immediately.

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. For example, not all customers have data for all products. *Contrast with dense dimension*.

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 A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated.

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.

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, then use the template as the basis for many regular journals.

Status bar The status bar at the bottom of the screen 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 non-sequential, 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, rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

super service A special service used by the startCommonServices script to start the RSC services.

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 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 connect to an single instance simultaneously.

sync Synchronizes 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 Transfers data from an application's 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 Represents business processes in the taskflow management system. Consists 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 Represents a single instance of a taskflow including its state and associated data.

taskflow management system Defines, creates, and manages the execution of a taskflow including: definitions, user or application interactions, and application executables.

taskflow participant The resource who 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 the 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 (TCP/IP).*

template A predefined format designed to retrieve particular data consistently.

text list In Essbase, an object that stores text values mapped to numeric identifiers. Text Lists enable the use of text measures.

text measure A data type that allows measure values to be expressed as text. 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 Defines the time period that the data represents, such as fiscal or calendar periods.

time events Triggers for execution of jobs.

time line viewer An FDM feature that allows a user to view dates and times of completed process flow steps for specific locations.

time scale Displays metrics by a specific period in time, 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).

Title bar Displays the Strategic Finance name, the file name, and the scenario name Version box.

toast message Messages that appear in the lower right corner of the screen and fade in and out.

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. The top-level member name is generally the same as the dimension name if a hierarchical relationship exists.

trace allocations A feature of Profitability and Cost Management that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

trace level Defines the level of detail captured in the 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, and measures, and ultimately, to its physical source elements.

traffic lighting Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

transformation (1) Transforms artifacts so that they function properly in the destination environment after application migration. (2) In data mining, modifies 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 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 via a third common currency. In Europe, this is the euro for member countries. For example, to convert from French franc to Italian lira, the common currency is defined as European euro. Therefore, in order to convert balances from French franc to Italian lira, balances are converted from French franc to European euro and from European euro to Italian lira.

triggers An Essbase feature whereby data is monitored according to user-specified criteria which when met cause Essbase to alert the user or system administrator.

trusted password A password that enables users authenticated for one product to access other products without reentering their passwords.

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.

typed measure In Essbase, a member tagged as "Text" or "Date" in the dimension where measures are represented. The cell values are displayed as predefined text or dates.

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.

Uniform Resource Locator The address of a resource on the Internet or an intranet.

unique member name A non-shared 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 an earlier software release with a current release or replacing one product with another.

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.

user variable Dynamically renders data forms based on a user's member selection, displaying only the specified entity. For example, user variable named Department displays specific departments and employees.

user-defined attribute (UDA) User-defined attribute, associated with members of an outline to describe a characteristic of the members. Users can use UDAs to return lists of members that have the specified UDA associated with them.

user-defined member list A named, static set of members within a dimension defined by the user.

validation A process of checking a business rule, report script, or partition definition against the outline to make sure that the object being checked is valid. For example, in FDM, validation rules ensure that certain conditions are met after data is loaded from FDM to the target application.

value dimension Used to define input value, translated value, and consolidation detail.

variance Difference between two values (for example, planned and actual value).

varying attribute An attribute association that changes over one or more dimensions. It can be used to track a value in relation to these dimensions; for example, the varying attribute Sales Representative, associated with the Product dimension, can be used to track the value Customer Sales of several different sales representatives in relation to the Time dimension. Varying attributes can also be used for member selection, such as finding the Products that a Sales Representative was responsible for in May.

version 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.

view Representation of either a year-to-date or periodic display of data.

visual cue A formatted style, such as a font or a color, that highlights specific types of data values. 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.

Web server Software or hardware hosting intranet or Internet Web pages or Web applications.

weight 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 re-usable 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.

work flow 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 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).

workbook An entire spreadsheet file with many worksheets.

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.

wsconf_platform A configuration file for UNIX platforms.

XML *See Extensible Markup Language (XML).*

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 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 Software tool that identifies version number of the most up-to-date plug-in on the server.

zoom Sets the magnification of a report. For example, magnify a report to fit whole page, page width, or percentage of magnification based on 100%.

ZoomChart Used to view detailed information by enlarging a chart. Enables you to see detailed numeric information on the metric that is displayed in the chart.

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