## Contents

**Documentation Accessibility** .......................................................... 11

**Chapter 1. Setting Web Analysis Preferences** ................................ 13
  - Setting the Active Preferences File .................................................. 13
  - Web Analysis Database Preferences ................................................. 14
  - About Alias Tables ............................................................................. 14
  - Setting Alias Tables ........................................................................... 15
  - Setting the Database Logon Method ..................................................... 16
  - About Point of View Definitions ....................................................... 17
    - Generic and Specific Documents ..................................................... 17
    - Replacing Member Selection Statements ......................................... 17
    - Default Dimension Layout and Member Selections for New Documents ... 18
    - Session-based Point of View .......................................................... 18
    - Reloading Documents ...................................................................... 18
    - Point of View and Personal Variables ............................................. 18
      - About Personal Variables ............................................................. 18
      - Generic and Specific Documents .................................................. 18
      - Point of View and Personal Variables .......................................... 18

**Chapter 2. Exporting Web Analysis Documents to Microsoft Office** .......... 19
  - Using the Export Excel Wizard .......................................................... 20

**Chapter 3. Importing Artifacts** ......................................................... 21
  - Importing ......................................................................................... 21
    - HTML Files ..................................................................................... 22
    - Importing Artifacts ......................................................................... 22
      - Importing Files ............................................................................. 22
      - Importing Multiple Files ............................................................... 23
      - Importing Files as Jobs ................................................................. 24
      - Importing a URL ........................................................................... 24
  - Setting Processing and Metadata Options ......................................... 24
  - Using EPM Workspace URLs ............................................................ 26
    - Opening a URL .............................................................................. 26
Chapter 4. Using Web Analysis ................................. 39

Presentations ...................................................... 40

Presentation Access and File Permissions ...................... 40

User and Group Permissions ...................................... 40

Document and Folder References .................................. 40

Opening Presentations .............................................. 41

Notes on Opening Presentations .................................. 42

Closing Presentations ............................................... 42

Web Analysis Documents ........................................... 43

Creating Web Analysis Documents ................................. 43

Creating Documents from Documents ............................ 46

Modifying Queries .................................................. 47

Modifying Filter Dimensions ....................................... 48

Selecting Members .................................................. 48

Advanced Member Selection ....................................... 49

Advanced Member Selection by Data Source .................... 50

Searching for Members ............................................. 52
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show/Hide Only</td>
<td>73</td>
</tr>
<tr>
<td>Asymmetrical Analysis</td>
<td>73</td>
</tr>
<tr>
<td>Creating Show/Hide Only Definitions</td>
<td>74</td>
</tr>
<tr>
<td>Editing Show/Hide Only Definitions</td>
<td>76</td>
</tr>
<tr>
<td>Traffic Lighting</td>
<td>76</td>
</tr>
<tr>
<td>Financial Intelligence Variations</td>
<td>76</td>
</tr>
<tr>
<td>Creating Traffic Lighting Definitions</td>
<td>77</td>
</tr>
<tr>
<td>Editing Traffic Lighting Definitions</td>
<td>78</td>
</tr>
<tr>
<td>Sorting</td>
<td>78</td>
</tr>
<tr>
<td>Creating Sorting Definitions</td>
<td>79</td>
</tr>
<tr>
<td>Editing Sorting Definitions</td>
<td>79</td>
</tr>
<tr>
<td>Restrict Data</td>
<td>79</td>
</tr>
<tr>
<td>Creating Restrict Data Definitions</td>
<td>80</td>
</tr>
<tr>
<td>Editing Restrict Data Definitions</td>
<td>81</td>
</tr>
<tr>
<td>Retrieve Only Top/Bottom</td>
<td>81</td>
</tr>
<tr>
<td>Server-Based Sorting</td>
<td>82</td>
</tr>
<tr>
<td>Multiple, Filter-Axis Members</td>
<td>82</td>
</tr>
<tr>
<td>Creating Retrieve Only Top/Bottom Definitions</td>
<td>83</td>
</tr>
<tr>
<td>Editing Retrieve Only Top/Bottom Definitions</td>
<td>83</td>
</tr>
<tr>
<td>Editing Data Formatting Definitions</td>
<td>83</td>
</tr>
<tr>
<td>Spreadsheet Options</td>
<td>84</td>
</tr>
<tr>
<td>Sizing Columns</td>
<td>85</td>
</tr>
<tr>
<td>Sizing Individual Columns</td>
<td>85</td>
</tr>
<tr>
<td>Sizing All Columns to a Common Width</td>
<td>85</td>
</tr>
<tr>
<td>Autosizing Column Width</td>
<td>85</td>
</tr>
<tr>
<td>Formatting Documents</td>
<td>86</td>
</tr>
<tr>
<td>Formatting Options</td>
<td>86</td>
</tr>
<tr>
<td>Other Kinds of Formatting</td>
<td>86</td>
</tr>
<tr>
<td>Formatting Order of Precedence</td>
<td>86</td>
</tr>
<tr>
<td>Data Display Options</td>
<td>87</td>
</tr>
<tr>
<td>Formatting Dialog Box</td>
<td>90</td>
</tr>
<tr>
<td>Cell Formatting</td>
<td>93</td>
</tr>
<tr>
<td>Sizing Columns</td>
<td>94</td>
</tr>
<tr>
<td>Changing and Locking Display Types</td>
<td>95</td>
</tr>
<tr>
<td>Charts and Chart Types</td>
<td>95</td>
</tr>
<tr>
<td>Chart Properties</td>
<td>96</td>
</tr>
<tr>
<td>Selecting Color</td>
<td>101</td>
</tr>
<tr>
<td>Font Properties</td>
<td>102</td>
</tr>
<tr>
<td>Calculations</td>
<td>103</td>
</tr>
</tbody>
</table>
**Contents**

- Absolute Value ................................................... 103
- Average ........................................................ 103
- Cumulative ..................................................... 103
- Difference from Average ............................................ 104
- Divide ......................................................... 104
- Linear Regression ................................................. 104
- Maximum ...................................................... 104
- Maximum Value .................................................. 105
- Minimum ...................................................... 105
- Minimum Value .................................................. 105
- Multiply ........................................................ 105
- Percent ......................................................... 106
- Percent Difference from Average ...................................... 106
- Percent of Difference ............................................... 106
- Percent of Member ................................................ 106
- Percent of Total .................................................. 107
- Rank Ascending and Rank Descending .................................. 107
- Subtract ........................................................ 107
- Sum ........................................................... 107
- Square Root ..................................................... 108
- Trend .......................................................... 108
- Variance ........................................................ 108
- Variance Percent .................................................. 108
- Complex Calculations .............................................. 108
- Creating Calculations .............................................. 109
- Modifying Calculations ............................................. 113
- Analytic Services Attribute Calculations ................................. 113
- Print as PDF from EPM Workspace ....................................... 114
- Print via PDF ....................................................... 115
- Database Connections ................................................. 115
  - Database Connection Files ........................................... 116
  - Database Connection Access and Document Permissions .................... 116
  - User and Group Permissions ......................................... 116
  - Integrating OLAP and Relational Data .................................. 116
- Analytic Services Database Connections .................................... 117
  - Restrict Data ..................................................... 117
  - Retrieve Only Top/Bottom .......................................... 117
  - Edit Data ....................................................... 117
  - Suppress Missing Rows, Zeros, and Shared Members ....................... 117
Linking Dimensions .................................................. 128
Edit Data Mode ..................................................... 128
Editing Data Values .................................................. 129
Copying, Cutting, and Pasting To and From Excel ......................... 129
Tips for Edit Data Mode ............................................... 129

Glossary ........................................................................ 131

Index ........................................................................... 155
Documentation Accessibility

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

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.
Preferences are stored in the repository as preference files. A preferences file is located in every users Profiles folder. Share preference files with other users. Although multiple preference files can be defined, only one preference file can be active at a time.

**Note:** Only subsets of Oracle Hyperion Web Analysis preferences are set through Oracle Hyperion Enterprise Performance Management Workspace. The Oracle Hyperion Web Analysis Studio offers a comprehensive interface for specifying Web Analysis preferences. EPM Workspace and the Web Analysis Studio modify the same files.

**Note:** In order for data to display correctly for a language, you need to set regional settings though the Control Panel as well the language setting through your browser (for example, Internet Explorer).

### Setting the Active Preferences File

The Preferences dialog box Active Preferences tab specifies the current preferences file.

Selecting **Use My Preferences** indicates you are using and editing the preferences file located in your Profiles folder. Selecting **Use Shared Preferences** indicates you are using a shared preferences file at the specified repository location.

**Note:** The default location for Shared Preferences files is in the User\<Profiles> folder.

Changing the Active Preference does not impact opened documents in the content area. User and shared preferences are only applied to subsequently created documents.
Upon editing shared preferences files, change the default behavior for users referencing that file. To prevent users from changing your preferences, restrict yourself to using your own preferences file.

**Default Document Open Mode**

- Selecting **HTML** or **Web Analysis Studio**, as your default document open mode, opens Web Analysis documents in the default mode selected.
- Selecting **HTML** opens the document in EPM Workspace.
- Selecting **Web Analysis Studio** launches a Web Analysis Studio session, automatically logging in and opening the selected document.

**Note:** This option will open one Web Analysis document per session in the Web Analysis Studio.

**Web Analysis Database Preferences**

Web Analysis Databases user preferences provide an inventory of available database servers and database connections by listing the database connection name, description, alias table, and repository location.

To review database connection names, click **Edit**. The Database Preferences dialog box is displayed. It has three tabs:

- **Details**
- **Point of View**
- **Personal Variable**

Click **Connect** to connect to data sources and retrieve values. If you are unable to connect, you may browse to another database connection file.

**About Alias Tables**

Alias tables are database tables that store aliases, or alternate description labels, for dimensions or members. Oracle Essbase enables you to define multiple alias tables. Web Analysis user preferences enable you to specify which alias table to use. The alias table selection is saved as a Web Analysis Database user preference.

Label mode enables you to select whether dimension members are listed by ID number or description. Label mode options are data source-specific, and are set for database connections, specific documents, and specific dimensions.

Label mode indicates whether the description or ID number is used and the database alias table provides the displayed value. Set the alias table before opening documents using Web Analysis Database user preferences.
Specify which description label to use in specific dimensions, using Dimension Browser and set a default label mode after querying the data source using Data Display options on the data object right-click menu.

**Setting Alias Tables**

► Specify default alias tables for database connections:

1. Select **File**, then **Preferences**.
2. Click **Web Analysis**.
3. Click **Active Preferences**, and select either **Use My Preferences**, or **Use Shared Preferences**. If you select **Use Shared Preferences**, click **Browse** and select a shared preferences file from the repository.
4. Click to make the **Databases** tab the current tab.
   
   The Databases tab lists all available database connections for the active user.

5. **Optional**: To edit database preferences for a database connection, select the database connection from the list then click **Edit**.

6. **Optional**: To add a database connection to the list, click **Add**.
   
   The Database Preferences dialog has three tabs: Details, Point of Views, and Personal Variables. Point of Views and Personal Variable tabs are disabled until a database connection is identified.

7. **Optional**: To identify database connection files, perform one:
   
   - Click **Browse** and navigate to a database connection file in the repository. Select the file, click **Open** then **OK**.
   
   - Enter the repository location and filename for existing database connection files in the text area.

   If you do not have access to database connection files, consult your Web Analysis administrator.

8. Click **Connect** to retrieve the latest values from the database connection.
   
   To log on to the data source, enter log on credentials, click **OK**.
   
   When you have connected to the data source, the Database File Location text area is disabled, and the Connect button is converted to a Disconnect button. Data sources supporting Point of View, Personal Variables and Alias Tables have these controls.

9. Select an alias table from the **Alias Table** drop down list.

10. Click **OK**.
    
    Whenever the specified database connection is used, the selected label mode is also used. Subsequent label mode selections made in the Cube Navigator or the Dimension Browser overwrite these default settings.
Setting the Database Logon Method

Web Analysis enables you to select among several data source log on options, and to save that selection as a Web Analysis Database user preference.

1. **Set default log on methods for specific database connections:**

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

      The User Preferences dialog box is displayed.

   2. Click **Web Analysis**.

   3. Click **Active Preferences**, select **Use My Preferences** or **Use Shared Preferences**. If you select **Use Shared Preferences**, click **Browse** and select shared preferences file from the repository.

   4. Click to make the **Databases** tab the current tab.

      The Databases tab lists all available database connections for the Active user.

   5. **Optional**: To edit database preferences for a database connection, select the database connection from the list then click **Edit**.

   6. **Optional**: To add database connections, click **Add**.

      The Database Preferences dialog box is displayed. It has three tabs: Details, Point of Views and Personal Variables. The Point of View and Personal Variable tabs are disabled until database connections are identified.

   7. **Optional**: To identify database connection files, perform one:

      - Click **Browse** and navigate to database connection files in the repository. Select the file and click the Open dialog box **OK** button.

      - Enter the repository location and filename for existing database connection files in the text area.

      If you do not have access to any database connection files, consult your Web Analysis administrator.

   8. **Click Connect** to retrieve the latest values from the database connection.

      Enter valid log on credentials, click **OK**.

      When you have connected to the data source, the Database File Location text area is disabled, and the Connect button is converted to a Disconnect button. Data sources supporting Point of View, Personal Variables and Alias Tables, have these controls.

   9. **Select one option from the Default Logon group:**

<table>
<thead>
<tr>
<th>Default Logon Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use User's name and Password</td>
<td>Connects to the database connection using the Web Analysis user name and password.</td>
</tr>
<tr>
<td>Prompt for User Name and Password</td>
<td>Connects to the database connection by prompting the user for a Web Analysis user name and password.</td>
</tr>
</tbody>
</table>
### Default Logon Options

<table>
<thead>
<tr>
<th>Description</th>
<th>Connects to the database connection using a user name and password for the database connection, if it varies from the Analyzer Login parameters. You must enter the valid values in the corresponding text areas.</th>
</tr>
</thead>
</table>

**10 Click OK.**

### About Point of View Definitions

Point-of-view database preferences enable you to automatically insert dimensions and members that are of interest to them into the documents of others. Point of View definitions must be defined and activated specifically for a database connection.

When a point of view (POV) is activated, the Use Point of View check box in Cube Navigator and the Document Creation wizard are enabled. All subsequently created and loaded documents use the specified POV until it is deactivated. You can also deactivate use of POV by deselecting the Cube Navigator Use Point of View option as needed.

Point of View definitions consist of both axes and dimension member selections. The entire definition is used when new documents are created with the activated POV.

When you apply a point of view definition to an existing document, only the dimension member selections are applied. This prevents points of view from automatically arranging non-functioning layouts (such as moving all dimensions to a single axis).

If all POV member selections are custom filters, you may not see obvious changes to your document. Check to see which POV is applied on the View pane Information Panel tab, Point of View segment.

Using a point of view definition is a three part process. First, create a point of view definition. Next, activate the point of view definition. Lastly, set an existing document to use the activated point of view definition or create a new document that uses it.

Consider the following benefits:

### Generic and Specific Documents

Document designers in large enterprises can create sets of generic documents, knowing that individual users can superimpose diverse and user-specific member selections into documents.

### Replacing Member Selection Statements

Apply the complex calculations and analysis tool definitions of others’ documents to the dimensions and members they track, using Point of View. This eliminates the need for the user to investigate and recreate these analyses.
Default Dimension Layout and Member Selections for New Documents

When Point of View is activated, the document-creation process is simplified. Cube Navigator is loaded with the dimension member selections designated by the current Point of View.

Session-based Point of View

Point of View is session-based. Point of View definitions are saved and recalled as part of individual database connections. This enables them to be used on all the documents using the corresponding database connection.

Reloading Documents

You must reload the document for the applied Point of View definition to be displayed.

Point of View and Personal Variables

Point of View definitions replace all existing member selections for corresponding dimensions and database connections. Personal variables augment existing member selections for single dimensions. Leverage personal variables in the creation of Point of View definitions.

About Personal Variables

Define and name complex member selections. Leverage personal variables when they are presented with the corresponding dimension and database connection.

Generic and Specific Documents

Other users create personal variables using the same name, dimension, and database connection that contain the dimensions members that are of interest to them. This technique creates hybrid documents with generic and user-specific content.

Point of View and Personal Variables

Point of View definitions replace existing member selections for corresponding dimensions and database connections. Personal variables augment member selections for single dimensions. Leverage personal variables in the creation of Point of View definitions.
To export a Web Analysis document to Excel, Word, or PowerPoint:

1. **Open a report, select File, and then Export.**

2. **Select one of the following submenu commands:**
   - Select **Microsoft Excel** to export the current page of the current data object of the current Web Analysis document. Then select one of the following:
     - Select **Fully Formatted** to export the document as formatted HTML. Then select Selected Object or All Objects.
     - Select **Query-Ready** to export the document as query-ready HTML. Then select Selected Object.
     - Select **Unformatted** to export the document without formatting. Then select Selected Object or All Objects.
   - Select **Microsoft Word** to export the current page of the current document to Microsoft Word as a static image. Then select Image, and then Selected Object or Screen.
   - Select **Microsoft PPT (PowerPoint)** to export the current page of the current document to Microsoft PowerPoint as a static image. Then select Image, and then Selected Object or Screen.
   - Select **Export Excel Wizard** to export one or all document pages or multiple data objects with one or more pages to Microsoft Excel in .xls format. Selecting this option displays the Export Excel Wizard (see “Using the Export Excel Wizard” on page 20). If you use the Export Excel Wizard, skip Step 3.

3. **Select an option:**
   - Select **Open with** to display exported content in the specified application.
   - Select **Save File** to save the content.
Using the Export Excel Wizard

Using the Export Excel Wizard, you can export one or all document pages or multiple data objects with one or more pages from a Web Analysis document residing in the EPM Workspace repository. All Web Analysis data objects (spreadsheet, chart, pinboard) are exported as Microsoft Excel spreadsheets. Freeform Grid and SQL spreadsheets cannot be exported.

To specify the report contents to export and the Microsoft Excel spreadsheet format:

1. Select the box in the top left corner of each report object to select individual data objects or select All Objects to select all data objects.

2. **Optional:** Check Split objects across worksheet to create a new worksheet for each exported report object.
   When this option is not selected, all exported report objects are placed in the same worksheet.

3. **Optional:** Check All Pages to export all pages for each selected view.
   When this option is not selected, only the current pages are exported.

4. **Optional:** Check Split pages across worksheets to create a new worksheet for each exported page.
   When this option is not selected, all exported pages for each data object are placed in the same worksheet.

5. **For Export Document As** Select Fully Formatted to export reports with formatting, or select Unformatted to export reports unformatted.

6. **Optional:** Click Next to select members for the export.
   For each selected view, a preview of the exported view is displayed.
   a. Open the drop-down list for a page dimension, and then select the box next to each page dimension member to include in the export.
   b. Repeat Step a for each dimension for which you want to select specific members.
   c. Repeat Steps a and b for each selected view as it is displayed.
   d. If necessary, click the Back or Next button to navigate between selecting objects, pages, and members.

7. Click Finish to export the selected data objects and pages, or click Cancel to stop the export.

   **Note:** At least one member for every page dimension must be selected to enable the Finish button.

8. Select an option:
   - Select Open with to display exported content in the specified application.
   - Select Save File to save the content.
Importing Artifacts

In This Chapter

Importing ................................................................. 21
Importing Artifacts ................................................. 22
Setting Processing and Metadata Options .............. 24
Using EPM Workspace URLs .................................... 26
Setting Permissions .................................................. 28
Creating Shortcuts ................................................... 31
Working with Properties ......................................... 32
Working with Versions .............................................. 35

Importing

Importing artifacts to the repository makes them available to others. You might give users the ability to modify one artifact, while limiting others. See “Setting Permissions” on page 28 for detailed information about permissions.

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

The following table shows the Oracle Hyperion Reporting and Analysis products and artifacts you can import:

Table 2

<table>
<thead>
<tr>
<th>Oracle Hyperion Reporting and Analysis Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Oracle Hyperion Financial Reporting           | - Dynamic report (*.des)  
- Snapshot reports (*.rpt)  
- Books (*.kbk)  
- Snapshot Books (*.kbt)  
- Batch files (*.bch)  
- Supporting files, |

Note: To import these files, you must use the Import, then Financial Reports menu item.
### Oracle Hyperion Reporting and Analysis Product

<table>
<thead>
<tr>
<th>Oracle Hyperion Reporting and Analysis Product</th>
<th>Description</th>
</tr>
</thead>
</table>
| Oracle Hyperion SQR Production Reporting      | - Documents to view (*.spf)  
- Program files to run as jobs (*.sqr)  
- Supporting files |
| Oracle Hyperion Interactive Reporting         | - Documents to view and modify (*.bqy)  
- Documents to run as jobs (*.bqy)  
- Supporting files |
| Web Analysis                                   | - Documents and presentations (*.apt)  
- Supporting files are automatically imported with the document or presentation  
**Note:** To import these files, you must use the Web Analysis Studio. |
| Microsoft Reports                              | A user can browse the Microsoft Report server repository. The user can then import a link to a Microsoft Report as a URL object into EPM Workspace repository. |

### HTML Files

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

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

### Importing Artifacts

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

- “Importing Files” on page 22
- “Importing Multiple Files” on page 23
- “Importing Files as Jobs” on page 24
- “Importing a URL” on page 24

### Importing Files

Import files into the repository with the following exceptions:

- For Financial Reporting files, see Importing a Financial Reporting File.
- For importing files as jobs, see “Importing Files as Jobs” on page 24
- For Interactive Reporting .oce files, see “Setting Processing and Metadata Options” on page 24.
- For importing URLs, see “Importing a URL” on page 24.
To import files:

1. From Explore, navigate to the folder where you want to import the artifact.
2. Select File, then Import, then File.
3. Browse to the file you want to import.
4. Enter a description, click Next or select Finish without specifying any Advanced options. If you select Finish, skip the following steps.
5. Enter properties, see “Advanced Properties” on page 33.
6. Complete permissions, see “Setting Permissions and Pushing Artifacts” on page 28.
7. Click Finish.

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

Importing Multiple Files

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

To import multiple files:

1. From Explore, navigate to the folder in which you want the files to reside.
2. Select File, then Import, then File.
3. Click Multiple Files.
4. Select the files you want to import.
5. Optional: Enter a description, and click Finish to complete the import without specifying any Advanced options.
6. Click Next.
7. Enter properties.
8. Click Finish to import the artifact.

The artifacts are imported into the current folder.
**Importing Files as Jobs**

Import Production Reporting program files (*.sqr) to create Production Reporting jobs, Interactive Reporting documents (*.bqy) to create Interactive Reporting jobs or generic files to create generic jobs. Schedule, set options on and execute the job using the Schedule module.

To import files as jobs:
1. From *Explore*, navigate to the folder where you want to place the artifact.
2. Select *File*, then *Import*, then *File as Job*.
3. Browse to the artifact you want to import, and click *Next*.
4. Do one of the following to complete the Import wizard:
   - For Production Reporting files and generic jobs, see “Setting Permissions” on page 34. This chapter guides you through the steps to complete this wizard.
5. Enter properties, see “General Properties” on page 32 and “Advanced Properties” on page 33. Required properties are marked with a red asterisk.
6. Click *Next*.
7. Complete the final step in the Import wizard — Permissions, see “Setting Permissions” on page 28.
8. Click *Finish* or *Finish and Schedule*.

**Importing a URL**

Perform these steps to import URLs.

To import URLs:
1. From *Explore*, navigate to the folder where you want to place the artifact.
2. Select *File*, then *Import*, then *URL*, enter the URL name.
3. **Optional:** Enter a description, and click *Finish* to complete the import without specifying any Advanced options or Permissions.
4. Click *Next*.
   - Required properties are marked with a red asterisk.
5. Complete step 3, Permissions. To specify permissions for the artifact, see “Setting Permissions” on page 28.
6. Click *Finish*.

**Setting Processing and Metadata Options**

Three options types specific to Interactive Reporting, database-connection file are offered: processing and metadata.

Processing Open Catalog Extension (OCE) options store database connection information.
### Table 3  Processing Database-Connection Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data source access</strong></td>
<td>Select a method for the Interactive Reporting database-connection file to use a username and password when a job is run or a file is processed.</td>
</tr>
<tr>
<td></td>
<td>• Use the username/password specified below—You enter the database username and password.</td>
</tr>
<tr>
<td></td>
<td>• Prompt for user name/password—You are prompted for the database username and password when the job is run or scheduled or the file is processed. This is the default when pass-through is disabled.</td>
</tr>
<tr>
<td><strong>User name</strong></td>
<td>If Data source access is set to use this field, enter the database user name.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>If Data source access is set to use this field, enter in the database password.</td>
</tr>
<tr>
<td><strong>Allow pass-through where end user’s authentication system is enabled for it</strong></td>
<td>Select to allow pass-through credentials for data source access.</td>
</tr>
</tbody>
</table>

Metadata options store a file that contains extra information about the Interactive Reporting database connection.

### Table 4  Metadata Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This Interactive Reporting database connection (.oce) uses metadata defined in another connection</strong></td>
<td>Metadata is used and the metadata connection is not specified in the Interactive Reporting, database-connection file. All fields in this group are disabled if this field is not selected.</td>
</tr>
<tr>
<td><strong>Select metadata connection</strong></td>
<td>If metadata is used and the metadata connection is not specified in the Interactive Reporting, database connection file, select the Interactive Reporting database-connection file for the metadata.</td>
</tr>
<tr>
<td><strong>Metadata access</strong></td>
<td>Select one of the following:</td>
</tr>
<tr>
<td></td>
<td>• Use processing OCE’s credential for metadata connection – Use that username and password associated with the Interactive Reporting database connection to access the metadata.</td>
</tr>
<tr>
<td></td>
<td>• Use specified user name/password – Use the specified user name and password to access the metadata.</td>
</tr>
<tr>
<td><strong>User name</strong></td>
<td>If Data source access is set to use this field, enter the database user name.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>If Data source access is set to use this field, enter in the database password.</td>
</tr>
</tbody>
</table>

### Table 5  Interactive Reporting Database Connection

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Connection Software</strong></td>
<td>Connection software name used by this Interactive Reporting database connection file (.oce) to connect to the database server, for example, ODBC or Essbase.</td>
</tr>
</tbody>
</table>

Setting Processing and Metadata Options 25
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td>Type of the database or database connectivity to which this Interactive Reporting Connection file (.oce) is used to connect, for example ORA8, Essbase, ODBC, OLEDB and so on.</td>
</tr>
<tr>
<td>Host</td>
<td>Identifier or alias for the specific information needed to connect to the client, for example, host name or DSN.</td>
</tr>
</tbody>
</table>

To complete the Import dialog wizard for Interactive Reporting Database Connection (.oce) files, see “Importing Files as Jobs” on page 24.

**Using EPM Workspace URLs**

Use these steps to open EPM Workspace URLs which point to a repository artifact.

- “Opening a URL” on page 26
- “Opening a URL in a New Window” on page 26
- “Updating a URL” on page 26

**Opening a URL**

Perform the following steps to open a URL.

- To open a URL:
  1. Select File, then **Open**, then **URL**.
     
     The URL dialog is displayed.
  2. Enter the URL name.
  3. Select **OK**.

**Opening a URL in a New Window**

- To open a URL in a new window:
  2. Select **New Window**.
  3. Enter the URL.
  4. Select **OK**.

**Updating a URL**

Perform the following steps to update the content of an existing URL displayed in the content area.
To update a URL:
2. Select Update URL.
   The Update URL dialog is displayed.
3. Enter the URL.
4. Select OK.

Importing a Financial Reporting File

Use this procedure to import a Financial Reporting file.

Note: Only one file at a time can be imported.

To import a Financial Reporting file:
1. From Explore, navigate to the folder where you want to place the artifact.
2. Select File, then Import, then Financial Reports.
3. Browse to the file you want to import.
4. Click Import.
5. Optional: If you import an artifact that uses a data source connection you are prompted to select it.

Importing Microsoft Reports

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

To import Microsoft reports:
1. Select a folder from the EPM Workspace repository.
2. Right-click and select Import then Microsoft Reports.
3. From the Import Microsoft Reports dialog, select a Microsoft Report.
4. Select Import. A URL object is created in the EPM Workspace repository.
Setting Permissions

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

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

To modify permissions, use:

- “Setting Permissions and Pushing Artifacts” on page 28
- “Creating Shortcuts” on page 31

Setting Permissions and Pushing Artifacts

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

Rules for setting permissions and pushing artifacts:

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

To edit permissions for files and folders:

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

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

2. Select Edit Permissions.

3. To complete the Permissions dialog, see step 1 on page 30.

To apply permissions to artifacts in a folder:

1. Right-click a folder in Explore.

2. Select Apply Permissions to Children.

3. To complete Apply Permissions to Children dialog, see step 1 on page 30. through step 3 on page 31.
4 Set permissions for the children of the folder. The columns displayed for selected users, groups, and roles in the Apply Permissions to Children dialog depend on the artifact type within the folder. Use the description for each of the permissions as a guideline:

Table 6  Setting Permissions for Children of Folder

<table>
<thead>
<tr>
<th>Permission</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inherit</td>
<td>Not set to anything. Inherit defaults to No Access. See Example of Inherit Permission topic below.</td>
</tr>
<tr>
<td>No Access</td>
<td>Users cannot see the object.</td>
</tr>
<tr>
<td>View</td>
<td>View document but cannot modify.</td>
</tr>
<tr>
<td>Job Output Only</td>
<td>View and produce output in the folder. No additional Modify capabilities.</td>
</tr>
<tr>
<td>Modify</td>
<td>Make changes but not delete.</td>
</tr>
<tr>
<td>Full Control</td>
<td>Access the Apply Permissions to Children dialog (add/edit/delete permissions to other users/groups/roles).</td>
</tr>
<tr>
<td>Run</td>
<td>Ability to run a job.</td>
</tr>
<tr>
<td>Modify and Run</td>
<td>This is applicable only to jobs. You can modify the properties of the job and run the job. If you have modify permission only, you can modify the properties of the job but not run the job.</td>
</tr>
<tr>
<td>View and Process</td>
<td>View documents and refresh data, cannot modify.</td>
</tr>
<tr>
<td>Note:</td>
<td>these are adaptive states and are applicable only to Interactive Reporting artifacts.</td>
</tr>
<tr>
<td>Analyze</td>
<td>Create and modify charts, pivots, and reports in the document, but cannot modify the queries or refresh the data.</td>
</tr>
<tr>
<td>Note:</td>
<td>these are adaptive sStates and are applicable only to Interactive Reporting artifacts.</td>
</tr>
<tr>
<td>Analyze and Process</td>
<td>Create and modify charts, pivots and reports in the document and refresh data. Cannot modify the query.</td>
</tr>
<tr>
<td>Query and Analyze</td>
<td>Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing.</td>
</tr>
<tr>
<td>Data Model and Analyze</td>
<td>Create and modify charts, pivots and reports in the document and refresh data. Can build and limit queries before processing. Can create and modify data models.</td>
</tr>
<tr>
<td>Note:</td>
<td>these are adaptive states and are applicable only to Interactive Reporting artifacts.</td>
</tr>
</tbody>
</table>

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

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

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

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

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

RoleA:
- Modify for File
- Datamode for Adaptive
- Pushed for Favorite

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

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

Changing Permissions or Pushing Artifacts

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

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

To change permissions or push artifacts:

1. To specify selected users, groups, and roles perform the following:
   a. To populate the list with all users, groups or roles leave the text box blank, select Update List.
   b. To populate the list with specified users, groups or roles:
      i. To filter the list by name, select begin with, contain, or are in group and enter letters.
      ii. To filter the list by user type, select tabs for Users, Groups, or Roles, then click Update List.

Available Users, Groups, and Roles display artifacts based upon the selections you made in the drop-down lists.
Note: If all of the artifacts are not listed, filter the list with criteria or contact your administrator. Your administrator determines the maximum number of artifacts to list. Wild cards are not supported and the filter is not case sensitive.

2 Select a user, group, or role from Users, Groups, or Roles tab, then click .

3 From Selected Users, Groups and Roles select a name from the Name column. From Access or Access to file drop-down set permissions:
   - Inherit – Not set to anything. This permission defaults to No Access.
   - No Access - Cannot access the document.
   - View - Can only display the document.
   - Modify - Change, but not delete.
   - Full control - Display, change, and delete.

   See “Setting Permissions and Pushing Artifacts” on page 28.

4 From the Favorite drop down, select Pushed to push the artifact to the users Favorites or Inherit (not pushed) to view only if this is the only permission set.

5 Repeat previous steps to set additional permissions for other users, groups, or roles.

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

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

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

7 To apply these permissions for an artifact, click OK.

8 Click OK.

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

Creating Shortcuts

Create a shortcut to a file or document.
To create shortcuts:
1. From Explore, navigate to an artifact.
2. Right-click the artifact, click Create Shortcut.
3. Enter the name and folder.

Working with Properties
This section describes how to modify properties of repository artifacts. You specify properties when importing and modifying artifacts.

Properties for artifacts:

To access properties:
1. From Explore, select an artifact.
2. Select File, then Properties.

General Properties
Most artifacts have these general properties:

<table>
<thead>
<tr>
<th>General Properties</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>The file name and path.</td>
</tr>
<tr>
<td>Name</td>
<td>The name you assign to the file. For example, if the file is \Jan03SR set the name to January 2003 Sales Report. Use letters, numbers, a space, and an underscore (_).</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> For Production Reporting jobs, select Replace to replace this job with another. Replacing this file may impact existing schedules dependent on this file. Owners of these schedules must be notified of these changes so that they can modify the job parameters accordingly.</td>
</tr>
<tr>
<td>Description</td>
<td>The description used to generate search keywords. Limit the length to 250 characters.</td>
</tr>
<tr>
<td>Owner</td>
<td>The User Name of the person who imported the artifact. To change owner of an artifact, see “Changing Ownership of Artifacts” on page 33.</td>
</tr>
<tr>
<td>Original File Name</td>
<td>(Read-only) The name of the file when it is imported or created.</td>
</tr>
<tr>
<td>Size</td>
<td>(Read-only) file size</td>
</tr>
<tr>
<td>SmartCut</td>
<td>(Read-only) A SmartCut is a URL pointing to a file.</td>
</tr>
<tr>
<td>Shortcut To</td>
<td>Specify the folder and subfolders for shortcuts.</td>
</tr>
<tr>
<td>Also store file in compressed (.zip) format</td>
<td>Set this when you import to store the file in WinZip format. This saves disk space, but slows down viewing.</td>
</tr>
</tbody>
</table>
Changing Ownership of Artifacts

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

To change the owner of an artifact:

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

Advanced Properties

Some artifacts have these advanced options:

<table>
<thead>
<tr>
<th>Advanced Properties</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIME Type</td>
<td>(Read Only) Multipurpose Internet Mail Extensions. Update this for jobs and documents only, MIME types are MS Word file, HTML file, and Personal Page.</td>
</tr>
<tr>
<td>Security Tags Included</td>
<td>(Read only) Indicates whether the Production Reporting job is secure. Secure jobs are Production Reporting only and always have HTML output.</td>
</tr>
<tr>
<td>Character Encoding</td>
<td>The character-encoding method, such as UTF-8. This encoding must be specified for HTML files so that EPM Workspace can display the file correctly. If the character encoding is not specified in this property or in the HTML file, EPM Workspace uses the character encoding set by your administrator.</td>
</tr>
<tr>
<td>Hidden File</td>
<td>Hides files in Explore. Example: Enable this option for image files needed by an HTML file, so the users select HTML files only.</td>
</tr>
<tr>
<td>Advanced Properties</td>
<td>Definitions</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Auto-delete file on this date or Auto-delete shortcut on this date | Enable to automatically delete this artifact from the repository when these conditions are met:  
  - The expiration date passed.  
  - Auto-delete is selected.  
  - The system performs regular garbage collection (up to an hour after the expiration date).  
  - For folders, set auto-delete to occur after all contents have been deleted from the folder. |
| If Exceptions are generated, allow users to add to their Exceptions Dashboard | The Exceptions dashboard is displayed on a Personal Page.  
This field is not used for jobs. When a job exception occurs, subscribed users can be notified by email or with a Exceptions Dashboard indicator. |
| Automatically generate keywords                            | Generates search keywords based on words contained in the Name and Description. For Interactive Reporting content, the section names are also used as keywords. The search function uses these keywords to find an artifact. |
| Keywords                                                  | New keywords used to search for an artifact.  
Creating keywords for artifacts is highly recommended and used for searching repository artifacts. |
| Auto Delete job outputs after                             | Used to delete job output after a specified time interval. The job output is deleted when all of these conditions are met:  
  - The expiration date passed.  
  - Auto-delete is checked.  
  - The system performs its regular garbage collection (up to an hour after the expiration date). |

**Output Properties**

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

**Setting Permissions**

Set rights for users to access files. See “Setting Permissions” on page 28.

**HTML File Properties**

HTML files contain these unique properties also:
Table 9

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

## URL Properties

In addition to General Properties and Advanced Properties, URLs have these properties:

Table 10

<table>
<thead>
<tr>
<th>URL Properties</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL (in the General Properties group)</td>
<td>The URL starts with http:// or https://.</td>
</tr>
<tr>
<td>Make displayable as a file content window</td>
<td>Contents of this artifact can be displayed on Personal Pages. (Default is enabled.)</td>
</tr>
<tr>
<td>Character encoding</td>
<td>The method of character encoding for the Web page. Note: Use UTF-8 for non-Latin-1 languages or when using iPlanet native servlet engine.</td>
</tr>
<tr>
<td>Icon</td>
<td>The icon shown for the URL. To change the icon, click Change Icon.</td>
</tr>
<tr>
<td>Change Icon</td>
<td>Select to add a graphic file from your PC or from the repository. Set the width and height to smaller than 24 pixels.</td>
</tr>
</tbody>
</table>

## Working with Versions

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

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

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

**Note:** To change imported versions for Interactive Reporting jobs or Interactive Reporting database connection files, use Replace in General Properties. It is important to replace the Interactive Reporting job or Interactive Reporting database connection file with a similar file. If the Interactive Reporting job is considerably different from the original Interactive Reporting job, import a new job. The system accepts files as replacements for Oracle Hyperion Interactive Reporting jobs or Interactive Reporting database connection files.
Click an artifact’s name for the latest version. When you move or delete an artifact, versions are included in the operation.

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

This section describes how to manipulate versions:

## Opening a Version

Open any artifact version.

## Adding a Version

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

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

To add versions:

1. From Explore select an artifact.
2. Select File, then Properties.
   
   The Properties dialog is displayed.
4. Click Browse and select a file to add as a new version.
5. Optional: Do one or more of these steps:
   - Enter a Description.
   - Enable Flag as an exception, then enter a message. If an exception occurs, the message is displayed on the Exceptions dashboard.
   - Set the priority to High or Normal.
6. Click OK.

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

## Viewing or Modifying Properties of Versions

Each version has its own properties.

To view or modify properties of versions:

1. From Explore, click the artifact whose version you want to edit.
Select File, then Properties.

Select Versions.

Select Modify.

The only changeable properties are Description, Flag as an Exception, and Message, see “Version Properties” on page 37.

After modifying properties, click OK.

Version Properties

The following table shows versions properties:

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

Listing Multiple Versions

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

To see all versions:

1. Select View, then Show Columns.
2. Click Versions, then click Save.
Deleting Versions

Delete one or more versions together.

➢ To delete versions:

1. From Explore, navigate to the artifact whose version you want to delete.
2. Select File, then Properties.
   The properties of the artifact are displayed.
3. Click Versions, then select a version.
4. Click Delete Selected.
5. Click OK.
## Using Web Analysis

### In This Chapter

- Presentations .......................................................... 40
- Opening Presentations ................................................. 41
- Closing Presentations .................................................. 42
- Web Analysis Documents ............................................ 43
- Creating Web Analysis Documents .............................. 43
- Creating Documents from Documents ......................... 46
- Modifying Queries ....................................................... 47
- Selecting Members ...................................................... 48
- Advanced Member Selection ........................................ 49
- Searching for SAP BW Characteristics ......................... 53
- Navigating Data Objects and Sources ............................ 62
- Changing Display Types ............................................. 68
- Pinboards ................................................................. 70
- SQL Spreadsheets ..................................................... 71
- Freeform Grids ......................................................... 71
- Resizing the Display .................................................... 71
- Managing Analysis Tools ............................................ 72
- Show/Hide Only ......................................................... 73
- Traffic Lighting .......................................................... 76
- Sorting ................................................................. 78
- Restrict Data ............................................................ 79
- Retrieve Only Top/Bottom ........................................... 81
- Editing Data Formatting Definitions ............................. 83
- Spreadsheet Options .................................................. 84
- Sizing Columns .......................................................... 85
- Formatting Documents ............................................... 86
- Calculations .............................................................. 103
- Print as PDF from EPM Workspace ............................... 114
- Print via PDF ............................................................. 115
- Database Connections ............................................... 115
- Analytic Services Database Connections ...................... 117
- Financial Management ............................................... 119
- SAP BW .................................................................. 123
Presentations

Presentations, playlists of Web Analysis documents, enable documents to be grouped, organized, ordered, distributed, and reviewed. Presentations are lists of pointers that reference repository documents, not documents copied into sets.

Presentation properties govern display and content; file properties control identification, access, and security.

Presentation Access and File Permissions

Because file permission and presentation access operate independently, presentations may be distributed to users who cannot access the documents within them.

Documents for which users do not have list file permission are not listed; documents for which users do not have read file permission cannot be opened.

File permissions that withhold document access prevent all access, directly or through presentations. Presentation permissions that withhold access do not prevent direct document access.

User and Group Permissions

Users can access presentations assigned to them or the groups to which they belong.

Both presentations and the documents within them must be assigned to groups. Otherwise, group members can access the presentations but not the documents within them (unless granted individual access).

To mitigate the risk of conflicting permissions, store presentations and their documents in the same folder. Whenever possible, distribute documents and presentations to groups. It is easier to set permissions for all files in a folder and all users in a group than to manage permissions for individual files and users.

Document and Folder References

You can add two kinds of references to presentations:
• Document—When you add documents directly to a presentation, a reference to a unique document identifier is created in the presentation. Wherever the document is moved, the presentation can locate and present the document.

• Folders—When you add folders to a presentation, the folder reference is directly added to Presentation Content, but documents in the folder are dynamically referenced. Documents added or removed from the folder are automatically added or removed from presentations referencing that folder.

Note: You cannot dynamically include descendant folders, or presentations in target presentations. When adding a folder to a presentation, only documents immediately in the selected folder are dynamically added to the target presentation.

Benefits and Considerations

Folder references simplify presentation maintenance because Web Analysis synchronizes presentation playlists with referenced folder content. You can also change folder content without editing its presentation. You must limit write access to the folder to prevent other users from inadvertently adding content to a folder, and subsequently your presentation.

While document references are less flexible and require more maintenance, presentation content is fixed.

Reference Reconciliation

When presentations are opened, Web Analysis first attempts to reconcile document references, and then folder references.

If files are copied and the original file deleted, Web Analysis cannot locate the unique file identifier. In this case, Web Analysis searches for files of the correct name at the same location. When a reference cannot be found by means of identifier or location, the reference displays as red in the Presentation Wizard.

Opening Presentations

Options for opening presentations:

• Select File, then Open, then Document or the open toolbar button, and select a presentation file from the Open dialog box.

• Right click the document and Select Open As
  • Click HTML to open the document in an HTML editor.
  • Click Web Analysis Studio to open the document in Web Analysis Studio.

• Use the view pane Tools menu or Explore toolbar button to access the Explore module, and navigate to and select a presentation from a repository location.
To open a presentation, using the Open dialog box:

1. **Perform an action:**
   - Select File, then Open, then Document.
   - Select the open button.
     The Open dialog box displays. It lists current folder content, as specified by Look in.
   - Right click the document and Select Open As
     - Click HTML to open the document in an HTML editor.
     - Click Web Analysis Studio to open the document in Web Analysis Studio.

2. **Optional:** From Type, select All Files or Hyperion, then Presentation.

3. **Navigate to the presentation:**
   - From Look In, select a location from the drop down list.
   - Click the Go Up A Level button to display the contents of the parent folder in the selection frame.
     As you navigate, the selection frame lists the files and folders indicated by the Files of Type list.

4. **Select the presentation.**

5. **Click OK.**

   If the first presentation document uses a database connection requiring log on, the Database Login dialog box is displayed.

6. **If prompted by the Database Login dialog, enter a valid user name and password, select Save User ID and Password, and click OK.**

   The selected presentation (and any other selections) display as content tabs below the content area. The first presentation document is opened and displayed as the current document.

### Notes on Opening Presentations

- In the Open dialog box, you can select documents, presentations, or both. Multiple files are opened in the order that the Selection frame lists them. The order of documents inside the presentation is observed in the context of the other files being opened.

- If multiple presentations contain multiple instances of a document, only the first instance is opened. It may seem that the document did not open or that documents opened in the wrong order. Only one instance of a document can be opened (and modified) at a time.

### Closing Presentations

Unchanged files close. Changed repository files prompt for changes to be saved. Files not previously saved to the repository trigger the Save As dialog box.
To close all opened documents, select File, then Close All.

**Web Analysis Documents**

Web Analysis documents display in data objects the data values returned from data sources. A document can have multiple data objects, and data objects have a display type:

- Spreadsheet
- Chart
- Pinboard
- SQL spreadsheet
- Freeform grid

You can review all display types, but you can create spreadsheets and charts only by using the new document wizard.

To create a document you are required to specify:

- Data source—provides data values
- Data object—displays these values
- Query—gets data values from the data source and returns them to the data object.

Properties customize each of these elements.

The database connection wizard specifies the type of data source, logon credentials, database applications, dimension formatting and drill-through properties.

Each data object can be set to a display types that features specific formatting options.

Queries can be explicit, requesting information on particular dimension members, or dynamic, requesting information about any dimension member that satisfies a set of criteria.

You have two document creation options:

- Use the new document wizard
- Modify Web Analysis documents and save them under new names or to new locations

**Creating Web Analysis Documents**

A wizard guides you through creating Web Analysis spreadsheets and charts. The wizard requires a database connection. You must know where this database connection is located, and have permission to use it.

To create a document, using the new document wizard:

1. Select File, then New, then Document, or select the toolbar New Document button.
Depending on the modules installed, you may be prompted to indicate the kind of document you want to create.

2 Optional: To create a Web Analysis document, select Create a Web Analysis document, and click Next.

If you are not prompted, proceed to the next step.

The content area displays Select a Data Source. Because the repository stores document definitions and not document data, you must identify a data source and the parameters for connecting to it.

3 Perform one:

- In the text area, enter the path, including the file name, from the root directory (/) to a database connection.
- Click Browse, select a database-connection file from the Open dialog box, and click OK.

4 Optional: Select Use my active POV, to populate the query from a predefined point of view definition, and click Next.

Performing this step enables you to load members from predefined point of view definitions and to insert dimensions and members with one click. You can define many point of view definitions, but Use my active POV applies only the definition set in user preferences as the current point of view.

5 Optional: Select Automatically select one dimension, to populate and display a simple spreadsheet, and click Finish.

Performing this step skips the remaining steps, and uses the highest aggregate members of the time and measures dimensions to populate spreadsheet row and column axes (the quickest method to use the new document wizard to display a spreadsheet).

Selecting Automatically select one dimension and Use my active POV and clicking Finish, skips the remaining steps and displays a simple spreadsheet using the current point of view definition.

6 Optional: Select Use Cube Navigator instead of Wizard and click Next to view the Select Layout dialog box.

- Select a layout and click OK

  The Cube Navigator dialog box is displayed.

- Select the appropriate dimensions and members and click OK to render the report.

7 Click Next.

In Select Row Dimension, you must select the dimensions to be used on the Rows axis. You are required to have at least one row axis dimension and one column axis dimension.

8 To move a dimension name from Filters to Rows, select the name, and click the right arrow.

The dimension name is displayed in the Rows frame. If no point of view definition was previously applied, the highest aggregate member of the dimension is used. If a point of view definition was applied, its members are used.
9 **Optional:** To select members, in *Rows*, double-click a dimension name.

The Dimension Browser dialog box displays. The dimension is presented as a node tree in the *Browse* frame. You select members from the *Browse* frame and move them to the *Selections* frame, using the following methods:

- To expand or contract the hierarchy, click the plus sign (+) or minus sign (-) nodes, or double-click the dimension name.
- To select members, right-click the dimension name, and select **Select Member**.

  Member names are displayed in the *Selections* list.
- To select members dynamically, right-click a member name, and select an advanced member selection method.
- Set the label mode for each dimension to the default label, an ID label, or the alias table description set in database connection properties.

  For descriptions of Dimension Browser dialog box options, see “*Selecting Members*” on page 48.

10 After indicating row-axis dimensions and selecting members, click **Next**.

11 Using the methods used to define the row axis, move a dimension name from **Filters** to **Columns**.

12 **Optional:** To select members, double-click a dimension name in **Columns**.

13 Using Dimension Browser methods, select members, set options, and click **OK**.

14 **Click Next.**

  In Step 5, you select page-axis dimensions. Although document intersections are relative to member selections, you can organize row and column intersections by page members.

15 **Optional:** Using the methods used to define row and column axes, move a dimension name from **Filters** to **Pages**.

16 **Optional:** Using Dimension Browser methods, select page members.

17 **Click Next.**

  In Step 6, you select filter-axis members.

  All dimensions participate in all spreadsheet intersections, regardless of the axes to which dimensions are assigned. Intersection arrangement is defined by row, column, and page axes. Data values displayed at intersections are determined by member selections.

  All data-object intersections are relative to filter member selections, which focus intersections, data values, and, consequently, data-object analysis.

  Filter-axis dimensions are by default represented by the highest aggregate member defined in the data source outline. If a point of view definition was applied, its member selections are used. If you select Filter members, all intersections are relative to the selections.

18 **Optional:** To display the Dimension Browser for Filter axis dimensions, double-click a dimension name.

19 **Optional:** Using Dimension Browser methods, select Filter axis members, and click **OK**.

20 **Click Next.**

21 **Optional:** Select a layout option:
Chart—displays the result set as a chart data object.

Spreadsheet—displays the result set as a spreadsheet data object.

Vertical Combination—displays the result set as both a chart data object and a spreadsheet data object stacked vertically.

Horizontal Combination—displays the result set as both a chart data object and a spreadsheet data object arranged side-by-side.

You can change the display type of Vertical and Horizontal Combination layouts; for example, you can convert the spreadsheet to another chart type. The objects, however, are linked and maintain a coordinated context.

22 Click Finish to submit the query to the data source.

The data source is queried. The result set returned displays as a data object (or objects) on a Web Analysis document.

Creating Documents from Documents

When you save documents with new names or to new locations, you use data sources, data objects, and queries defined in existing documents, leveraging documents to save time and effort. You can modify documents before you save them to new names or locations.

To create a document from a document:

1 Perform one:
   - Select File, then Open, then Document.
   - Select the open button.
     The Open dialog box displays. A selection frame lists contents of the current folder, specified by Look in.
   - Right click the document and Select Open As
     - Click HTML to open the document in an HTML editor.
     - Click Web Analysis Studio to open the document in Web Analysis Studio.

2 Optional: From Type, select All Files or Hyperion, then Web Analysis Document.

3 Navigate to the document to be copied.

4 Select the document, and click Open.

   If the document uses a database connection requiring log on, the Database Login dialog box displays.

5 If prompted by the Database Login dialog, enter a valid user name and password, select Save User ID and Password, and click OK.

   The selected document displays.

6 Modify the document.

7 Perform one:
Select File, then Save As.
Click the toolbar Save As button.
The Save As dialog box displays. A selection frame lists the contents of the current folder, as specified by Look in.

8 Navigate to the folder into which to save your modified document.

9 Optional: After you navigate to the location to save the file, enter a new filename in Name.

10 Click Save.

The modified document is saved to the specified location with the specified name.

Modifying Queries

Data Layout is a query editing interface. Data Layout displays dimensions returned by the database connection, arranged on four axes:

- Rows
- Columns
- Pages
- Filters

Database connections return three types of dimensions.

<table>
<thead>
<tr>
<th>Table 12</th>
<th>Dimension Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icon</td>
<td>Dimension Type</td>
</tr>
<tr>
<td>![ ]</td>
<td>Standard</td>
</tr>
<tr>
<td>![ ]</td>
<td>Attribute</td>
</tr>
<tr>
<td>![ ]</td>
<td>Attribute Calculations</td>
</tr>
</tbody>
</table>

All queries must have at least one dimension assigned to the row axis and one dimension assigned to the column axis; multiple dimensions can be nested on one axis. You can organize row and column dimensions by assigning dimensions to the page axis. Dimensions not assigned to rows, columns, and pages are in the filter axis.

All dimensions, regardless of the axes to which they are assigned, participate in all intersections displayed by a data object. You use Data Layout to arrange dimensions, to specify level of detail, and to set query options.

Note: All data objects start as spreadsheets. Charts and pinboards are organized by the four axes, despite using different metaphors to display data.
To redefine the query and dimension layout of the current data object of the current document, click the toolbar Data Layout button.

To move a dimension between axes, drag the dimension to the other axis.

To select members, double-click the dimension name.

Dimension Browser is displayed. See “Selecting Members” on page 48.

**Modifying Filter Dimensions**

All data-object intersections are relative to filter member selections, which focus intersections and data values, and consequently, analysis.

Filter-axis dimensions are by default represented by the highest aggregate member defined in the data source outline. To focus analysis on members other than the highest aggregate, you can select filter members.

Filter member selections do not rearrange dimensions or reorganize pages, but focus analysis on specific intersections.

**Selecting Members**

Dimension Browser, an interface for selecting members and refining database queries, is used with the new document wizard, Cube Navigator dialog box, Information panel, or on its own.

The Dimension Browser presents dimensions as a node tree in the Browse frame. You must select dimension members from this Browse frame and move them to the Selections frame.

Members can be selected individually, by familial relationships, by data-source-specific option, or from predefined selection lists.

To access Dimension Browser:

- Right-click a member label on a data object, and select **Browse**.
- In the view pane **Information** panel, select a dimension name.
- Click the Data Layout button, and double-click a dimension name.
- In the new document wizard, double-click a dimension name.

To expand or collapse hierarchies in Dimension Browser, click the plus sign (+) or minus sign (-) nodes, or double-click a dimension name.

To select a member, right-click the member, and select **Select Member**.

The member name is displayed in the Selections list. You cannot select the database connection name at the top of the node tree.
To select a member dynamically in Dimension Browser, right-click the member, and select an advanced member selection method from the list.

See “Advanced Member Selection” on page 49.

To remove a member from the Selections list, perform an action:
- Right-click the member in the Browse or Selections list, and deselect the selected selection method.
- Select the member in the Selections list, and click Remove.

To remove all members from the Selection list, click Remove All.

To preview members returned by advanced member selection, before you quit Dimension Browser, click Preview.

To set dimension label mode, select a Dimension Labels option.
- Use Default
- Descriptions—the current alias table
- IDs—the unique ID label
- Both—ID label and description (used in Financial Management)

The label displayed by description is drawn from the alias table specified by the active user’s database preferences. You can set an alias table for each Active Preferences user ID or group ID. Users can specify label mode in specific dimensions, using Dimension Browser.

**Advanced Member Selection**

In dimensions with large member sets, users can define selections by using the Dimension Browser right-click menu. Right-clicking member names enables selection by familial relationship and data-source-specific options.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select Member</td>
<td>Selects the currently member</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Children</td>
<td>Selects the current member and its children</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Descendants</td>
<td>Selects the current member and its descendants</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Select Parent</td>
<td>Selects the parent of the current member</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Ancestors</td>
<td>Selects the current member and its ancestors</td>
</tr>
<tr>
<td>Icon</td>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Siblings</td>
<td>Selects the current member and members on its level and of its parent.</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Select Dim Bottom</td>
<td>Selects lowest-level members</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Select Dim Top</td>
<td>Selects the highest ancestor</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Level</td>
<td>Selects the current member and all members on its level</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Generation</td>
<td>Selects the current member and all members of its generation</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Previous</td>
<td>Displays the Previous Selection dialog box, typically used to select previous members at the current level</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Also Select Subset</td>
<td>Displays the Subset dialog box, used to select an Analytic Services member subset.</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Substitution Variables</td>
<td>Displays the Substitution Variables dialog box, used to set a substitution variable as the dimension selection</td>
</tr>
<tr>
<td>![Icon]</td>
<td>User Defined Fields</td>
<td>When Financial Management is used as a data source, displays the User Defined Fields dialog box, in which you can specify one of three pre-defined attribute values, select members featuring the specified attribute values, and compose compound selection statements with AND and OR</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Dynamic Time Series</td>
<td>Displays the Analytic Services Dynamic Time Series menu (for example: History To Date, Quarter To Date)</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Search</td>
<td>Displays the Search dialog box, in which you use search criteria to locate members of large dimensions (adds found members to the Selection list)</td>
</tr>
<tr>
<td>![Icon]</td>
<td>Find In Tree</td>
<td>Locates members in large dimensions; expands the dimension hierarchy but does not add found members to the Selection list</td>
</tr>
</tbody>
</table>

**Advanced Member Selection by Data Source**

Different data sources support different member selection methods.
<table>
<thead>
<tr>
<th>Data Source</th>
<th>Advanced Member Selection Methods</th>
</tr>
</thead>
</table>
| Analytic Services | ● Also Select Children  
                   | ● Also Select Descendants  
                   | ● Select Parent  
                   | ● Also Select Ancestors  
                   | ● Also Select Siblings  
                   | ● Select Dim Bottom  
                   | ● Select Dim Top  
                   | ● Also Select Level  
                   | ● Also Select Generation  
                   | ● Also Select Previous  
                   | ● Select Subset  
                   | ● Substitution Variables  
                   | ● Dynamic Time Series  
                   | ● Search  
                   | ● Find in Tree  |
| SAP BW      | ● All Members  
                   | ● Select Dim Top  
                   | ● Select Dim Bottom  
                   | ● Also Select Descendants  
                   | ● Select Parent  
                   | ● Also Select Ancestors  
                   | ● Also Select Children  
                   | ● Also Select Siblings  
                   | ● Also Select Level  
                   | ● Select At Level  
                   | ● Also Select Previous  
                   | ● Also Select Next  
                   | ● Dynamic Time Series  
                   | ● Select Top/Bottom  
                   | ● Filter on Member Properties  
                   | ● Find in Tree |
Consider relational-hierarchy implications in advanced member selections on relational data sources. When highest ancestors are selected, default members, rather than aggregations, may be used. For example, the relational hierarchy may equate Also Select Children and Also Select Descendants.

**Searching for Members**

Analytic Services and Financial Management users can locate members in large dimensions by using search criteria. Searches can be conducted inside Dimension Browser (during query creation) or from the data-object right-click menu (during document analysis).

To search for Analytic Services or Financial Management members in Dimension Browser:

1. **Right-click a member.**
2. **Select Search.**
3. **Enter search criteria in the text boxes.**

<table>
<thead>
<tr>
<th>Table 15 Member Search Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Search Criteria</strong></td>
</tr>
<tr>
<td>Member</td>
</tr>
<tr>
<td>Mode</td>
</tr>
<tr>
<td>Search Criteria</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>Find In Tree</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Range</td>
</tr>
<tr>
<td>Option</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

4 Click **OK**.

➢ To search for Analytic Services members in a Web Analysis data object:

1 Right-click a member, and select **Search** from the right-click menu.
2 Enter search criteria in the text boxes, and click **OK**.

**Note:** Search performance is directly related to size and complexity of the dimension hierarchy.

## Searching for SAP BW Characteristics

SAP BW users can locate characteristics in large dimension hierarchies by using search criteria. The searches can be conducted only inside Dimension Browser during composition of a query.

➢ To locate SAP BW members in Dimension Browser:

1 Right-click a member.
2 Select **Search**.
3 Enter search criteria in the text boxes.

### Table 16  SAP BW Search Criteria

<table>
<thead>
<tr>
<th>Search Criteria</th>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>ID</td>
<td>Searches by member technical name</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Searches by member alias</td>
</tr>
<tr>
<td>Search Criteria</td>
<td>Control</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>Search Criteria</td>
<td></td>
<td>Searches using an operand:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Equal To</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &gt;=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &lt;=</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &lt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Between</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Contains Pattern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Searches by text string.</td>
</tr>
<tr>
<td>Execute</td>
<td></td>
<td>Runs the search function</td>
</tr>
<tr>
<td>Filtered Members</td>
<td></td>
<td>Displays the search result set</td>
</tr>
<tr>
<td>Add</td>
<td></td>
<td>Moves the selected member from the Filtered Members list to the Selected Members list.</td>
</tr>
<tr>
<td>Remove</td>
<td></td>
<td>Moves the selected member from the Selected Members list to the Filtered Members list</td>
</tr>
<tr>
<td>Selected Members</td>
<td></td>
<td>Displays members of the search result set</td>
</tr>
<tr>
<td>Add All</td>
<td></td>
<td>Moves all filtered members to the Selected Members list</td>
</tr>
<tr>
<td>Remove All</td>
<td></td>
<td>Moves all selected members to the Filtered Members list</td>
</tr>
<tr>
<td>OK</td>
<td></td>
<td>Adds the Search Selected Members list to the Dimension Browser Selections list</td>
</tr>
</tbody>
</table>

4 Click **Execute** to run the search function using the criteria specified in the Mode and Search Criteria group boxes. The search result set is displayed in the Filtered Members box.

5 **Select members from the Filtered Members list, and click Add to add them to the Selected Members list.** Only Selected Members list members are added are added to the Dimension Browser Selections list when you click OK.

6 Click **OK**.

## Locating Members

In large or complex dimension hierarchies, you can locate known members to select other members, rather than composing search strings for unknown members.

> To find a known member in the dimension hierarchy:

1 In Dimension Browser, from **Selections**, right-click a member.
2 Select **Find In Tree**.
In the Browse frame, the dimension hierarchy is expanded, and the first instance of the selected member is highlighted. You can now select members based on their relationship to the selected member.

Selecting Members Using Analytic Services Subsets

Analytic Services users can define rules that select dimension member subsets by criterion. These rules are composed of the following items:

- UDA — user-defined attributes
- Generation — generation within the dimension hierarchy
- Level — level within the dimensional hierarchy
- Expression — pattern of wildcard characters
- Attribute dimensions — database-defined attributes
- Conditional logic — advanced subset member selection criteria

You can search all selected member descendants using a maximum of 50 subset conditions. Subset criteria are saved by document in the repository. Because the filter panel cannot accommodate lengthy selection lists, subset member selections made in Filters are summarized with a description.

To define a member subset selection:

1. In Dimension Browser, right-click a member.
2. Select Select Subset.
   - The Subset dialog box displays. At the top, it indicates dimension members against which the rule is applied. Use the Individual Selection Rule control to compose a rule by selecting components from drop down lists.
3. Select a type: UDA, Generation, Level, Expression, or Attribute.
4. Select an operand: is (=) or is not (not equal).
5. From the last list, select a value.
6. Click Add.
   - You must add the rule to Total Subset Definition for it to be used. You can define compound and conditional rules by adding multiple rules to the definition and using the Advanced button to connect them.

Table 17  Advanced Subset Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Submenu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td></td>
<td>Rule added to Total Subset Definition</td>
</tr>
<tr>
<td>Update</td>
<td></td>
<td>Rule replaced by another rule</td>
</tr>
<tr>
<td>Validate</td>
<td></td>
<td>Parenthetical syntax of Total Subset Definition verified</td>
</tr>
<tr>
<td>Option</td>
<td>Submenu</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Remove</td>
<td></td>
<td>Rule deleted from Total Subset Definition</td>
</tr>
<tr>
<td>Remove All</td>
<td></td>
<td>All rules deleted from Total Subset Definition</td>
</tr>
<tr>
<td>Connect</td>
<td>And</td>
<td>AND inserted at end (AND is used by default when multiple rules are added to the definition.)</td>
</tr>
<tr>
<td></td>
<td>Or</td>
<td>OR inserted at end</td>
</tr>
<tr>
<td>Move</td>
<td>Move Up</td>
<td>Rule moved up in Total Subset Definition</td>
</tr>
<tr>
<td></td>
<td>Move Down</td>
<td>Rule moved down in Total Subset Definition</td>
</tr>
<tr>
<td>Parenthesis</td>
<td>Add (</td>
<td>Open parenthesis inserted at beginning</td>
</tr>
<tr>
<td></td>
<td>Add )</td>
<td>Close parenthesis inserted at end</td>
</tr>
<tr>
<td></td>
<td>Remove (</td>
<td>Open parenthesis deleted</td>
</tr>
<tr>
<td></td>
<td>Remove )</td>
<td>Close parenthesis deleted</td>
</tr>
<tr>
<td></td>
<td>Remove All ()</td>
<td>All parentheses deleted from Total Subset Definition</td>
</tr>
<tr>
<td>Substitution Variable</td>
<td></td>
<td>Substitution Variable dialog box presented, enabling you to select a predefined substitution variable for the rule value</td>
</tr>
</tbody>
</table>

7 **Optional:** To compose a compound subset definition, repeat steps 3 through 6.

8 **Click OK.**

**Wildcard Characters**

Supported wildcard characters include the question mark (?) and the asterisk (*), which can be used only once in an expression and only at the end of a text string.

**Expressions**

Subset queries defined by expressions are not dependent upon label mode, returning all strings satisfying the expressions regardless of the alias table. Users must determine whether value sources are ID, description, or from alias tables and refine queries as needed.

**UDAs**

Web Analysis enables Analytic Services users to create user-defined attributes (UDAs), words or phrases associated with and defining characteristics of members, for member subsets.

**Selecting Financial Management User-Defined Fields**

Financial Management users can select members with specified attribute criteria. User-defined fields define compound selection rules for attributes of a specified value.
To define a user-defined field selection:

1. In Dimension Browser, right-click a member.

2. Select User Defined Field.

   The User Defined Field Selection dialog box is displayed. The controls at the top prompt you to compose a rule.

3. Select a field: UserDefined1, UserDefined2, or UserDefined3.

   The equal sign is the sole operand for the rule.

4. Enter a value.

5. Click Add.

   To be used, the individual rule must be added to the Selection Criteria. Define compound and conditional rules by adding multiple rules to the frame, and using Advanced options to connect them.

Table 18 Advanced User-Defined Field Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Submenu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td></td>
<td>Rule added to Selection Criteria</td>
</tr>
<tr>
<td>Update</td>
<td></td>
<td>Rule replaced by another rule</td>
</tr>
<tr>
<td>Remove</td>
<td></td>
<td>Rule deleted from Selection Criteria</td>
</tr>
<tr>
<td>Remove All</td>
<td></td>
<td>All rules deleted from Selection Criteria</td>
</tr>
<tr>
<td>Connect</td>
<td>And</td>
<td>AND inserted at end (AND is used by default when multiple rules are added to the definition.)</td>
</tr>
<tr>
<td></td>
<td>Or</td>
<td>OR inserted at end</td>
</tr>
<tr>
<td>Move</td>
<td>Move Up</td>
<td>Rule moved up in Selection Criteria</td>
</tr>
<tr>
<td></td>
<td>Move Down</td>
<td>Rule moved down in Selection Criteria</td>
</tr>
<tr>
<td>Parenthesis</td>
<td>Add (</td>
<td>Open parenthesis inserted at beginning</td>
</tr>
<tr>
<td></td>
<td>)</td>
<td>Close parenthesis inserted at end</td>
</tr>
<tr>
<td></td>
<td>Remove (</td>
<td>Open parenthesis deleted</td>
</tr>
<tr>
<td></td>
<td>)</td>
<td>Close parenthesis deleted</td>
</tr>
</tbody>
</table>

6. Optional: To compose compound subset definitions, repeat steps 3 through 5.

7. Click OK.

**Filtering by SAP BW Member Properties**

SAP uses the term *member properties* to refer to member attributes. You can select SAP BW members and filter them by their member properties. You select the members and then define filtering definitions on the selections.
To select SAP BW members by their member properties:

1. **In Dimension Browser**, select a member.
   
   The member is displayed in the Selection frame.

2. Right-click the member, and select **Filter on Member Properties**.
   
   The Member Properties dialog box is displayed. The controls at the top prompt you to compose a rule.

3. From the list, select a member property.

4. Select an operand.

5. In the text area, enter a value for the member property.

6. Click Add.

   You must add the rule to the filter definition for it to be used. You can use multiple rules to create compound definitions.

   **Table 19 Advanced Filter on Member Properties Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Submenu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td></td>
<td>Rule added to the filter definition</td>
</tr>
<tr>
<td>Update</td>
<td></td>
<td>Rule replaced by another rule</td>
</tr>
<tr>
<td>Remove</td>
<td></td>
<td>Rule deleted from the filter definition</td>
</tr>
<tr>
<td>Remove All</td>
<td></td>
<td>All rules deleted from the filter definition</td>
</tr>
<tr>
<td>Parenthesis</td>
<td>Add (</td>
<td>Open parenthesis inserted at beginning</td>
</tr>
<tr>
<td></td>
<td>Add )</td>
<td>Close parenthesis inserted at end</td>
</tr>
<tr>
<td></td>
<td>Remove (</td>
<td>Open parenthesis deleted</td>
</tr>
<tr>
<td></td>
<td>Remove )</td>
<td>Close parenthesis deleted</td>
</tr>
<tr>
<td>Connect</td>
<td>And</td>
<td>AND inserted at end (AND is used by default when multiple rules are added to the definition.)</td>
</tr>
<tr>
<td></td>
<td>Or</td>
<td>OR inserted at end</td>
</tr>
<tr>
<td>Move</td>
<td>Move Up</td>
<td>Rule moved up in the filter definition</td>
</tr>
<tr>
<td></td>
<td>Move Down</td>
<td>Rule moved down in the filter definition</td>
</tr>
</tbody>
</table>

7. **Optional**: To compose compound definitions, repeat steps 3 through 6.

8. Click **OK**.

### Using SAP BW Select Top/Bottom

SAP BW enables you to limit the size of and rank query result sets. You select members and then define filtering definitions on the selections.
To limit and rank SAP BW members as part of the query:

1. **In Dimension Browser, select a member.**
   The member is displayed in the Selection frame.

2. **Right-click the member, and select Select Top/Bottom.**
   The Top/Bottom dialog box is displayed.

3. **Select Top or Bottom.**
   You cannot select both, as you can with Analytic Services.

4. **From Using Function, select Percent, Sum, or Count.**
   You can determine rank by only one method.

5. **In the text area, enter a value for the selected method.**
   For Percent, use a value between one and one hundred. For Sum, enter a threshold. All member values summed up to and including the threshold are returned. For Count, provide an integer, to indicate how many top or bottom members to return.

6. **In Order By, select a dimension.**
   Because all dimensions participate in all intersections, you must identify the intersection by which the selected dimension is ranked.

7. **Optional: Click Selection.**
   Dimension Browser for the Order By dimension is displayed. You can select a member of the Order By dimension by which to rank the selected dimension.

8. **Click OK.**

**Selecting Financial Management Member Lists**

Member lists are predefined variables, used for frequently changing information, created using Financial Management, and identified by variable names.

To use a Financial Management member list in a Dimension Browser member selection:

1. **In Dimension Browser, right-click a member.**
2. **Select Member List.**
3. **From Choose Member List, select a member list.**
4. **Click OK.**

**Selecting Substitution Variables**

Substitution variables are predefined variables, used for frequently changing information, created using Analytic Services, and identified by variable names.
Substitution variables simplify document maintenance, enabling fluctuating values to be adjusted centrally (in Analytic Services) and to be referenced dynamically (by Web Analysis documents).

To use a substitution variable in a Dimension Browser member selection:

1. In Dimension Browser, right-click a member.
2. Select Substitution Variable.
3. Select a substitution variable.
4. Click OK.

Multiple Substitution Variables

Multiple substitution variables can be used using Subset Member Selections.

Syntax Tips

Substitution variables have specific rules and syntax requirements:

- For substituted values, use dimension or member names.
- Do not use ampersands (&) as the first character of member names.

Analysis Tools and Substitution Variables

When member selections defined by substitution variables are used in analysis tool definitions, the variables are resolved to their current values, ensuring accurate aggregations, comparisons, and calculations, regardless of the substitution-variable definition.

Selecting Personal Variables

Personal variables, containers for ad hoc collections of otherwise unrelated members, enable users to define and name complex member selections. To leverage personal variables, you must be presented with relevant dimensions and database connections.

Defining personal variables does not include them in queries. You select personal variables from Dimension Browser when you define queries.

- To use a personal variable in a query, select the personal variable definition from the Dimension Browser Browse panel.

Applying Point of View (POV)

POV database preferences enable users to insert dimensions and members into the documents of others. Definitions must be defined and activated for specific database connections.
When a POV is activated, the Use Point of View check box in the new document wizard is enabled. Documents created when Use Point of View is selected use the active POV.

EPM Workspace users cannot create or activate POV definitions. But, they can select database connections with activated POV definitions and apply the definitions to documents that they are creating. EPM Workspace users cannot apply POV definitions to documents.

POV definitions consist of axes and member selections. Entire definitions are used when documents are created with activated POVs.

If all POV member selections are custom filters, you may not see changes in your document. You can check Point of View, of the view pane Information tab, to see which POV, if any, is applied.

**Note:** You cannot edit the User POV in Workspace.

- Using POV definitions is a three-part process:
  1. Use Web Analysis Studio to create a POV definition.
  2. Use Web Analysis Studio to activate the definition.
  3. Set a document (existing or newly created) to use the definition.

- To apply an activated POV definition to a new document:
  1. **Perform an action:**
     - Select File, then New Document.
     - Click the new button.
     
     The steps for creating documents are displayed.
  2. **Click Browse.**
  3. From the Open dialog box, select the file of the database connection that uses the activated POV definition that you want to use, and click OK.

**Defining Dynamic Time Series Selections**

You can select Dynamic Time Series (DTS) definitions, created in Analytic Services, for query selection statements. To define time periods, users select DTS definitions and time members.

**Time Substitution Variables**

You can select DTS substitution variables.

Substitution variables are predefined placeholders, used for frequently changing information, identified by variable names, and having temporary values that define data type. When substitution variables are used, temporary values are replaced by current values. Substitution variables are stored at the database level in Analytic Services.
To define a DTS selection:

1. In Dimension Browser, right-click a time member.

2. Select Dynamic Time Series.
   The Dynamic Time Series dialog box is displayed, listing DTS definitions as option buttons and substitution variables in a list.

3. Select a DTS definition option.

4. Perform an action:
   - Select the Substitution Variables tab, and then select a substitution variable.
   - Select the Members tab, and then select a member to represent the date in the X-to-date definition.

5. Click OK.

**Defining Previous Member Selections**

Selecting Also Select Previous from the Dimension Browser right-click menu displays the Also Select Previous dialog box, used to select previous members at one dimension level.

To define a previous member selection:

1. In Dimension Browser, in Browse, right-click a member.

2. Select Also Select Previous.
   The Also Select Previous dialog box is displayed.

3. Specify how many previous members to retrieve.

4. Click OK.
   Dimension Browser is displayed. The member that you right-clicked is displayed in the Selections list with the Also Select Previous icon.

**Navigating Data Objects and Sources**

Web Analysis documents can contain a variety of data objects:

- Spreadsheets
- Charts
- Pinboards
- SQL spreadsheets
- Freeform grids

Despite their diversity, data objects are not static. You can rearrange, expand, change, and concentrate dimension intersections. These methods, called navigation methods, enable travel through dimensional hierarchies.
Navigation methods are specific to data object and data source.

<table>
<thead>
<tr>
<th>Table 20</th>
<th>Supported Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td><strong>Data Source</strong></td>
</tr>
<tr>
<td>OLAP</td>
<td>Analytic Services</td>
</tr>
<tr>
<td></td>
<td>IBM DB2 OLAP Server</td>
</tr>
<tr>
<td></td>
<td>SAP BW</td>
</tr>
<tr>
<td>Hyperion</td>
<td>Financial Management</td>
</tr>
<tr>
<td></td>
<td>Planning</td>
</tr>
<tr>
<td>Relational</td>
<td>IBM DB2 Enterprise Server Edition</td>
</tr>
<tr>
<td></td>
<td>Microsoft SQL Server</td>
</tr>
<tr>
<td></td>
<td>Oracle</td>
</tr>
<tr>
<td></td>
<td>Teradata</td>
</tr>
<tr>
<td></td>
<td>Other JDBC RDBMS</td>
</tr>
</tbody>
</table>

OLAP data sources support the navigation methods described in this chapter. Other Hyperion data sources and relational data sources support fewer navigation methods.

**Navigation Methods**

EPM Workspace uses various navigation methods:

<table>
<thead>
<tr>
<th>Table 21</th>
<th>Navigation Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Navigation</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Move</td>
<td>Relocates dimensions on data-layout axes</td>
</tr>
<tr>
<td>Paging</td>
<td>Maintains dimensions on their row and column axes, while changing their intersections on the page axis</td>
</tr>
<tr>
<td>“Keep Only” on page 65</td>
<td>Retains one member of the selected dimension, while deselecting all other members</td>
</tr>
<tr>
<td>“Remove Only” on page 65</td>
<td>Deselects the selected member, removing it from the query result set</td>
</tr>
<tr>
<td>Drilling</td>
<td>Increases or decreases dimension detail by displaying or not displaying members in the hierarchy</td>
</tr>
<tr>
<td>“Drill-Linking” on page 68</td>
<td>Navigates to other documents or executables</td>
</tr>
</tbody>
</table>
Custom Controls

Define Web Analysis navigation

Use a custom document component to change the query. While Web Analysis users can use custom document components, you can only create these components in the Web Analysis Studio.

Navigation method specifics:

- Drilling—Navigates to related members
- Linking (called drill-linking) — Passes selected members to other documents
- Linked reporting objects (LROs) — Open executables to display cell-notes, Windows executables, or Web page URLs.

Repositioning Dimensions

You can rearrange intersections by repositioning dimensions on or between axes.

To reposition a dimension, using the Data Layout dialog box, click the data layout button, and drag the dimension from its current positions to another position on the current axis or to another axis.

Note: Document creators use Properties to lock the ability to swap and move dimensions.

To reposition a dimension, using the view pane Information panel:

1. Select View, then View Pane.
2. Click the information panel button to make Information the current tab.
3. Scroll to the Filter, Page, Row, and Column trees to review placement of the current data object.
4. Drag the dimension from one axis tree to another axis tree.

Note: You must have at least one row and one column dimension. If repositioning leaves a row or column axis empty, use Data Layout to rearrange the dimension layout.

Paging

Paging maintains dimensions on row and column axes, while changing their intersections on the Page axis.

You can jump or scroll through pages of intersections by using the Page Control panel.

To display the Page Control panel, select View, then Pages.

The Page Control panel displays in the content area above the relevant data object, organizing Page axis intersections so that each page is relevant to one Page member.
To navigate the Page dimension, perform an action:

- Click < and > to move up and down in the page series.
- From the list box, select a page member by name.

**Pages**

Think of the Page axis as the Z-axis of a three-dimensional graph. Visualize a stack of spreadsheets. You navigate the stack to compare values among pages. The spreadsheets represent Page axis dimensions, and the pages represent Page axis members or member combinations.

**Multiple-Page and Single-Page List Boxes**

When you work with page dimension combinations, the Page Control panel can display multiple-page list boxes, which display all possible page combinations, whether or not data exists. Single-page list boxes omit page combinations that do not contain data. Oracle recommends using single-page list boxes when working with sparse dimensions.

To separate or combine Page dimensions into multiple-page list boxes, click **Toggle Multipage**.

**Keep Only**

Keep Only deselects all but one member of the selected dimension.

To deselect all but one member of a dimension, right-click the member, and select **Keep Only**.

**Remove Only**

Remove Only deselects a member, removing it from the query result set.

To remove one member from the query result set, right-click a member, and select **Remove Only**.

**Drilling**

Drilling increases or decreases data-object detail by changing the member display. Because drilling is customizable, the term *drilling* refers to almost any hierarchical navigation prompted by clicking a dimension label.

Three types of drilling options:

- Drilling options specify the result set.
- Expand on Drill specifies whether the result set replaces or augments the currently displayed members.
- The Selected Member data-display option specifies whether the drilled member is included in the result set.

Web Analysis users must use the data-object, right-click menu to set drill options. Expand on Drill and Selected Member options are set by user preferences in Web Analysis Studio.

**Drilling Options**

Web Analysis Studio features these default drilling behaviors:
- Drill Down includes a member's children in the display.
- Drill Up includes a member's parent in the display.
- Drill to Top includes the highest ancestor in the display.

You can customize drilling by setting drilling options. Drilling options are set for the current document through the data object shortcut menu (select Drill, then Drill Options). Drilling options can also be set for all subsequently created documents through Drilling preferences.

This table describes Web Analysis Studio drilling options:

<table>
<thead>
<tr>
<th>Drilling Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill to Next Level</td>
<td>Includes the children of the drilled member in the display.</td>
</tr>
<tr>
<td>Drill to Descendants</td>
<td>Includes all descendants of the drilled member in the display.</td>
</tr>
<tr>
<td>Drill to Dim Bottom</td>
<td>Includes the lowest level descendants of the drilled member in the display.</td>
</tr>
<tr>
<td>Drill to Siblings</td>
<td>Includes members at one level who share a parent with the drilled member.</td>
</tr>
<tr>
<td>Drill to Same Level</td>
<td>Includes all members on the drilled member's level.</td>
</tr>
<tr>
<td>Note:</td>
<td>Hyperion defines levels as hierarchical layers counted up from the lowest descendant (Level 0). Other data sources define levels differently. Asymmetric hierarchies may also yield unexpected results.</td>
</tr>
<tr>
<td>Drill to Same Generation</td>
<td>Includes all members on the drilled member's generation.</td>
</tr>
<tr>
<td>Note:</td>
<td>Hyperion defines generations as hierarchical layers counted down from the highest ancestor (Generation 0). Other data sources define generations differently.</td>
</tr>
</tbody>
</table>

Drilling options are data-source specific. Drilling options that are not supported by the data source default to Drill to Next Level.

**Expand on Drill**

The Expand on Drill drilling option sets the drilling return set to augment or replace currently displayed dimension members. You can set Expand on Drill for the current document through
the data object shortcut menu (Drill, then Drill Options). Expand on Drill can also be set for all subsequently created documents through Drilling preferences.

When Expand on Drill is selected the drilling return set is added to currently displayed dimension members. When Expand on drill is disabled the drilling return set replaces currently displayed dimension members.

**Selected Member Data Display Option**

The Selected Member data display option specifies that the query result set should include the member from which advanced member selections are defined.

For example: If you specify Also Select Children on the Year dimension member and Selected Member is enabled, Year and all of its children are returned by the query. When Selected Member is disabled, only the children of year are returned.

This Selected Member functionality also impacts the drilling result set, by including or excluding the drilled member in the drilling result set.

Additionally, you can enable the Selected Member First data display option, to ensure that the drilled member is listed above the drilling result set.

**Drilling Variations**

These data display and drilling option combinations result in drilling return sets that differ. If you are aware of this dynamic you are better prepared to receive the intended drilling return set.

<table>
<thead>
<tr>
<th>Drilling Variation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling down with Expand Drilling enabled and Data Display, then Selected Members disabled</td>
<td>Augments current member selections with the drilled return set and removes the drilled member</td>
</tr>
<tr>
<td>Drilling down with Expand Drilling enabled and Data Display, then Selected Members enabled</td>
<td>Augments current member selections with the drilled return set and includes the drilled member.</td>
</tr>
<tr>
<td>Drilling down with Expand Drilling disabled and Data Display, then Selected Members disabled</td>
<td>Replaces the current member selections with the drilled return set and removes the drilled member.</td>
</tr>
<tr>
<td>Drilling down with Expand Drilling disabled and Data Display, then Selected Members enabled</td>
<td>Replaces the current member selections with the drilled return set and includes the drilled member.</td>
</tr>
</tbody>
</table>

**Default Drilling Behavior**

Default drilling behavior for Web Analysis documents:

- Drill Down displays children.
- Drill Up displays parents.
- Drill to Top displays the highest ancestor.
Drilling options are data-source specific. If, in user preferences, you set drilling options that are not supported by the current data source, drilling defaults to Drill to Next Level.

**Drill-Linking**

Drill-linking enables you to navigate to other documents by clicking cells with preplaced links. Drill-linking differs from both drilling and linked reporting objects. Drilling navigates the dimensional hierarchy. Drill-linking passes the current member selection to other documents and executables. Linked reporting objects are linked to cell notes, file attachments, and URLs.

**Changing Display Types**

Documents display data values returned from data sources in data objects. Web Analysis documents can have multiple data objects, and each data object can have a different display type:

- Spreadsheet
- Chart
- Pinboard
- SQL spreadsheet
- Freeform grid

Each display type has numerous prerequisites. Because SQL spreadsheets and freeform grids can be created only in Web Analysis Studio, you cannot change them.

Pinboards require traffic lighting definitions, so you can change spreadsheets or charts to pinboards, only if the pinboard definition is defined.

To change the display type of the current document, select Format, then Display Type, then select a display type or chart type.

**Note:** Web Analysis Studio users can lock the display type to prevent subsequent users from altering a document.

**Data Display Options**

Each display type has data display options specifying document behavior. For suppression—suppresses rows with missing data, rows with zeroes, and in the case of Analytic Services, rows with shared members. Suppression can be set from the Cube Navigator dialog box, Data Display shortcut menu or OLAP Server preferences.
Table 24  Data Display Options of Data Object Shortcut Menu

<table>
<thead>
<tr>
<th>Data Display Option Submenu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Member</td>
<td>Displays the explicit member selection made in the query. This member selection can be previewed in the Information panel, or Dimension Browser. Selected Member provides a method for displaying this information in data objects.</td>
</tr>
<tr>
<td>Selected Member First</td>
<td>When Selected Member is active, enables you to position the explicit member selection made in the query definition first (from left to right, or top to bottom).</td>
</tr>
<tr>
<td>Suppress</td>
<td>Omits data, as specified, from the query result set:</td>
</tr>
<tr>
<td></td>
<td>- Missing Rows</td>
</tr>
<tr>
<td></td>
<td>- Missing Columns</td>
</tr>
<tr>
<td></td>
<td>- Shared Members</td>
</tr>
<tr>
<td></td>
<td>- Zero Rows</td>
</tr>
<tr>
<td>Default Label Mode</td>
<td>Toggles between label modes:</td>
</tr>
<tr>
<td></td>
<td>- Descriptions</td>
</tr>
<tr>
<td></td>
<td>- IDs</td>
</tr>
<tr>
<td></td>
<td>- Both (Financial Management option)</td>
</tr>
<tr>
<td>Dimension-Specific Label Mode</td>
<td>Toggles between label mode options:</td>
</tr>
<tr>
<td></td>
<td>- Use Default</td>
</tr>
<tr>
<td></td>
<td>- Descriptions</td>
</tr>
<tr>
<td></td>
<td>- IDs</td>
</tr>
<tr>
<td></td>
<td>- Both (Financial Management option)</td>
</tr>
<tr>
<td>Dimension Header Sorting</td>
<td>Orders the selected dimension per the order option:</td>
</tr>
<tr>
<td></td>
<td>- Default</td>
</tr>
<tr>
<td></td>
<td>- Ascending</td>
</tr>
<tr>
<td></td>
<td>- Descending</td>
</tr>
<tr>
<td></td>
<td>- Level (OLAP specific)</td>
</tr>
<tr>
<td></td>
<td>- Generation (OLAP specific)</td>
</tr>
<tr>
<td></td>
<td>- Selection Order (Relational specific)</td>
</tr>
<tr>
<td></td>
<td>The Default option is the order in which dimension members are naturally ordered by data source outlines. Using this option may offer improved performance.</td>
</tr>
<tr>
<td>Show Linked Reporting Object Indicators</td>
<td>Shows or hides small cell triangles indicating the presence of Linked Reporting Objects. Triangles persist for related content.</td>
</tr>
</tbody>
</table>

**Saving Selections to the User POV**

User POV enables users to select members in Filters, Pages, Rows, and Columns (Data layout and/or member selection controls) and applies them to multiple reports.

Note the report needs the following to utilize the User POV:
“Use User POV” is enabled in the Data Layout dialog in the Web Analysis Studio.

A dimension member selection needs to include “User POV” as a selection.

This is exposed through the current POV functionality, where UserPOV is the name of another POV that is created and utilized in reports. The UserPOV exist for all database connections and can be set at user level only.

To set a UserPOV, right click a spreadsheet and select Save Selection to save the dimension member selections to the UserPOV.

**Pinboards**

Pinboards are custom, graphic representations of multiple dimensions. Pinboard dimensions are represented by graphics, pin icons on graphics, and color (or state).

**Pinboards Prerequisites**

Because pins change image or color dynamically, based on traffic-lighting cues, you must create the spreadsheet and apply traffic lighting before creating the pinboard in Web Analysis Studio.

**Pinboard Series**

A pinboard series enables drilling from one pinboard to another. You create the first pinboard and then use the Web Analysis Studio Pinboard Designer right-click menu to generate subsequent pinboards, each of which uses the children of the preceding pinboard. The pinboard that represents the dimension bottom is the last in the series.

**Pins**

You can use the default pins provided by Web Analysis Studio or use Pin Designer to create pins. Pins change their image or color, based on traffic lighting.

![Default Pin, Image Pin, and Color Pin](image)

**Traffic-Lighting Control Panel**

If multiple traffic-lighting definitions are defined on a document, the pinboard display type displays a traffic-lighting control panel, which enables you to scroll through the traffic-lighting definitions.
SQL Spreadsheets

SQL spreadsheet data objects enable users to query relational data sources and display the returned data values on custom documents:

- SQL spreadsheets can be created only on custom documents.
- You must understand how to compose SQL queries to create SQL spreadsheets.
- You must be able to connect to a relational data source using supported JDBC drivers.

Alternatives for accessing relational data:

- In Web Analysis Studio, you can create a relational database connection to be used by spreadsheets, charts, and pinboards.
- You can use freeform grids, which leverage custom document database connections, to combine data values from multiple data sources in one data object.
- In Web Analysis Studio, you can create a relational drill-through connection from an OLAP database connection to a relational data source.
- You use the Related Content dialog box to leverage pre-defined Analytic Integration Services drill-through reports.

Freeform Grids

Freeform grids present OLAP, relational, and manually entered data on a data object, enabling you to leverage multiple data sources in integrated, dynamic calculations.

Freeform grids are comprised of rows and columns; page dimensions are not visually represented. You can use OLAP database connections with members assigned to the page axis, but you cannot navigate through page dimensions unless you create additional subscription controls. In short, only the first page of a multidimensional cube is displayed.

Resizing the Display

You can resize large Web Analysis documents in the content area:

- **Auto-Resize** — attempts to fit the current data object into the current content area
- **Custom Resize** — fits the current data object to a manually specified pixel area
To auto-resize the current data object, select Format, then Auto-Resize.

To size the current data object to a specified size, select Format, then Custom Resize, and, when the Custom Resize dialog box is displayed, enter the preferred number of horizontal and vertical pixels.

Managing Analysis Tools

You can leverage tools, advanced-analytical-formatting and data-source-specific, from the EPM Workspace. Analysis tools expedite comparisons, visually organize data, and promote structures and conclusions.

Analysis tools are data-source-specific; not all tools are available in all data objects.

Analysis tools are centrally organized and applied by Analysis Tools Manager, accessed using the data-object, right-click menu. Analysis Tools Manager features an Ordered By panel, which shows the number and order of tool definitions activated on the current data object.

You can create analysis tools, using the data-object, right-click menu.

Table 25  Analysis Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Lighting</td>
<td>Displays the Traffic Lighting dialog box, used to color-code member values based on fixed limits or value comparison. Traffic Lighting visually associates member values, whether or not they are sorted or ranked.</td>
</tr>
<tr>
<td>Sorting</td>
<td>Displays the Sorting dialog box, used to order the query result set</td>
</tr>
<tr>
<td>Retrieve Only Top/Bottom</td>
<td>Displays the Retrieve Only Top/Bottom dialog box, used to limit and rank the query result set</td>
</tr>
<tr>
<td>Restrict Data</td>
<td>Displays the Restrict Data dialog box, used to restrict the query result set based on criteria</td>
</tr>
<tr>
<td>Calculations</td>
<td>Displays the Calculations dialog box, used to create calculated rows and columns</td>
</tr>
<tr>
<td>Show/Hide Only</td>
<td>Displays the Show/Hide dialog box, used to filter data by color, value, and member</td>
</tr>
<tr>
<td>Data Formatting</td>
<td>Displays the Data Formatting dialog box, used to format data values based on member or value criteria</td>
</tr>
</tbody>
</table>

Related Content Definitions

Related Content definitions can be managed from the Related Content dialog box and Analysis Tools Manager. Edits, including remove and remove all, made in the Related Content dialog box change definition content but do not impact definition existence. In Analysis Tools Manager, you can activate, deactivate, reorder, and remove, but not edit, definitions.
Order of Definitions

The order in which Analysis Tools definitions are applied affects data object behavior. Users can edit application order by moving Analysis Tools definitions up and down in the Ordered By panel.

Default Analysis Tools Definitions

Analysis Tools Manager displays default formatting, measures formatting, and spreadsheet option definitions at the top of the Ordered by list panel. Definitions originating from user preferences, database connection properties, and data object properties are applied before Analysis Tools definitions and can be edited, but not removed or disabled.

Activating and Deactivating Analysis Tools Definitions

You can activate and deactivate Analysis Tools definitions without removing them from Analysis Tools Manager; thus, you can use many different Analysis Tools combinations.

To deactivate an Analysis Tools definition, in the Ordered By panel, select the appropriate Active check box.

Show/Hide Only

You use the Show/Hide Only analysis tool to include or exclude members in or from data objects. Using member name, traffic lighting color, or data value criteria, you enabled focused, value-based analysis.

The Information panel displays the Show/Hide Only definitions that restrict or display current-document information.

Asymmetrical Analysis

Asymmetric documents feature nested dimensions that differ (by at least one member) across an axis. You can hide rows, columns, and chart objects and thus enable asymmetrical analysis.

Multiple Show/Hide Only Definitions

Multiple Show/Hide Only definitions are applied in order, enabling simultaneous control by member, color, and values.

Differences in Show/Hide Only Definitions

Different types of Show/Hide Only definitions operate differently:

- Calculations displays or hides all calculated members.
Members displays or hides specified members of the dimension right-clicked in the document.

Values displays or hides members on the axis opposite the dimension right-clicked in the document.

Colors displays or hides members on the axis opposite the dimension right-clicked in the document.

Show/Hide Only definitions are created in the Show/Hide Only dialog box.

**Table 26  Show/Hide Only Dialog Box**

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Method</td>
<td>Show—Displays items that satisfy definition criteria</td>
</tr>
<tr>
<td></td>
<td>Hide—Hides items that satisfy definition criteria</td>
</tr>
<tr>
<td>Where</td>
<td></td>
</tr>
<tr>
<td>Calculations</td>
<td>Shows or hides all calculated members</td>
</tr>
<tr>
<td>Member</td>
<td>Bases definitions on specified, current-axis members</td>
</tr>
<tr>
<td>Any Values</td>
<td>Tests whether any opposite-axis member contains values that satisfy current-axis criteria</td>
</tr>
<tr>
<td>All Values</td>
<td>Tests whether all opposite-axis members contain values that satisfy current-axis criteria</td>
</tr>
<tr>
<td>Any Colors</td>
<td>Tests whether any opposite-axis member contains colors that satisfy current-axis criteria</td>
</tr>
<tr>
<td>All Colors</td>
<td>Tests whether all opposite-axis members contain colors that satisfy current-axis criteria</td>
</tr>
<tr>
<td>Set Condition</td>
<td></td>
</tr>
<tr>
<td>Operator menu</td>
<td>Enables selection of a criteria operator: Greater than (\textgreater{}), Greater Than or Equal To (\textgreater{}\textless{}), Equal to (\textequal{}), Less Than or Equal To (\textless{}\textgreater{}), or Less Than (\textless{}), Not Equal To (\textless{}\textgreater{})</td>
</tr>
<tr>
<td>Value Text box</td>
<td>Enables users to enter values for conditions</td>
</tr>
<tr>
<td>Color</td>
<td>Opens the Select Color dialog box, used to set condition color</td>
</tr>
<tr>
<td>Members</td>
<td>Lists members and attributes to which the current definition applies</td>
</tr>
<tr>
<td>Advanced</td>
<td>Aggregates or separates member combinations</td>
</tr>
<tr>
<td>Apply</td>
<td>Applies new definitions to documents</td>
</tr>
</tbody>
</table>

**Creating Show/Hide Only Definitions**

To create a Show/Hide Only definition:

1. Right-click a member, and select Analysis Tools, then Show/Hide Only.

   The Show/Hide Only dialog box is displayed.
2 From **Select Method**, select Show or Hide.

3 Define a Show/Hide Only definition option:
   - To show or hide calculated members, in **Where**, select **Calculations**.
   - To show or hide specific members, in **Where**, select **Members**, and, from **Members**, select members.
   - To show or hide members, if any member satisfies the specified condition.
     a. In **Where**, select **Any Values**.
     b. From Members, select members.
     c. Use the operator list and the value text area to define the condition. To show or hide members, if all members satisfy the specified condition:
     d. In **Where**, select **All Values**.
     e. From **Members**, select members.
     f. Use the operator list and the value text area to define the condition.
     g. To show or hide members, if any member satisfies the specified traffic-lighting color condition:
        i. In **Where**, select **Any Colors**.
        ii. From **Members**, select members.
        iii. From the operator list, select Equal To (=) or Not Equal To (<>).
        iv. From **Color**, select an option. To show or hide members, if all members satisfy the specified traffic-lighting color condition:
   h. In **Where**, select **All Colors**.
   i. From **Members**, select members.
   j. From the operator list, select Equal To (=) or Not Equal To (<>).
   k. From **Color**, select an option.

   **Note:** Show/Hide Only Members is applied to the named member, and Show/Hide Only Values and Show/Hide Only Colors are applied to the opposite axis, using the values in the selected axis.

   Color options are enabled only for data objects that feature active traffic-lighting definitions. An Advanced check box enables you to specify conditions for member combinations. The Apply button enables you to apply the current definition to the current data object, without exiting the dialog box. You may have to drag the dialog box title bar to see the data object.

4 Click **OK**.

   The definition is added to Analysis Tools Manager.

5 Click **Close**.
Editing Show/Hide Only Definitions

To edit a Show/Hide Only definition:

1. Right-click a member, and select Analysis Tools, then Analysis Tools Manager.
   Analysis Tools Manager is displayed.
2. Right-click a Show/Hide Only definition, and select Edit.
   The Show/Hide Only dialog box is displayed.
3. Make selections and define parameters.
4. Click OK.

Traffic Lighting

The Traffic Lighting analysis tool color-codes data cells. You can base color-coding on two-member comparisons or single-member fixed limits. Colors graphically associate member values, whether or not they are sorted or ranked. Traffic Lighting definitions are created in the Traffic Lighting dialog box and maintained as the document is pivoted and changed.

The Information panel displays the Traffic Lighting definitions that color-code the current data object.

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Criteria</td>
<td></td>
</tr>
<tr>
<td>Apply Traffic Lighting To</td>
<td>Specifies the dimension to which traffic lighting is applied</td>
</tr>
<tr>
<td>Comparing It To</td>
<td>Specifies the dimension to which the preceding dimension is compared</td>
</tr>
<tr>
<td>Assign Limits</td>
<td>Specifies the interval, set point, and color parameters that compose the traffic lighting definition</td>
</tr>
<tr>
<td>% Differences</td>
<td>Indicates that color-coding is based on the percent difference between compared members. If not enabled, color-coding is based on value difference.</td>
</tr>
<tr>
<td>Enable Financial Intelligence</td>
<td>Enables Hyperion data sources to treat expenses and liabilities as negative values. Works with % Differences to reflect variance and variance percent calculations for the Traffic Lighting dialog box.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Aggregates or separates member combinations</td>
</tr>
<tr>
<td>Apply</td>
<td>Applies the definition to the document</td>
</tr>
</tbody>
</table>

Financial Intelligence Variations

% Differences and Enable Financial Intelligence cooperate to provide four calculations for the Traffic Lighting dialog box:

- Neither selected—Traffic Lighting compares members, using a subtraction calculation.
- Only % Differences selected—Traffic Lighting compares members, using a percent difference calculation.
- Enable Financial Intelligence selected—Traffic Lighting compares members, using an advanced variance calculation that recognizes specific expense and liability members as negative values.
- Both selected—Traffic Lighting compares members, using an advanced variance percent calculation that recognizes specific expense and liability members as negative values.

**Assign Limits Box**

In the Assign Limits box, you indicate the number, color, and criteria for color-coding traffic lighting ranges.

**Table 28  Assign Limits Box**

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add to End</td>
<td>Inserts set points within ranges</td>
</tr>
<tr>
<td>Remove Last</td>
<td>Removes the last traffic lighting range and set point</td>
</tr>
<tr>
<td>Set Color button</td>
<td>Opens the Select Color dialog box, used to set range colors</td>
</tr>
</tbody>
</table>

**Note:** Setting traffic lighting colors to the colors used by Spreadsheet Options may obscure member color-coding.

**Creating Traffic Lighting Definitions**

To create a traffic lighting definition:

1. Right-click a member, and select Analysis Tools, then Traffic Light.

   The Traffic Lighting dialog box is displayed.

2. From Apply To, select the member to which traffic lighting is to be applied.

3. From Comparing It To, select the member to which the previously selected member is to be compared.
   - Compare to a fixed limit by, in Assign Limits, deselecting % Differences or, from Comparing It To, selecting Fixed Value.
   - Select Advanced twice, first to separate members into combinations and second to select from aggregated members.

   Assign Limits contains three default set points and colors. Set points divide values into ranges identified by color.

4. For each set point, indicate a set point operand.

   The first list prompts you to specify whether the setpoint value is in the range; you choose greater than (>) or greater than and equal to (>=).
5 In the text box, enter a setpoint value, to specify the threshold that separates ranges.

The second list prompts you to specify the setpoint value; you enter positive or negative decimal values.

6 **Optional**: To change the range color, click Color, and select a color square.

The Color button displays a color-square palette. Selecting a square assigns it to the current traffic lighting range and displays the hexadecimal value of the color in the neighboring text-entry field.

7 **Optional**: To change color opacity, enter a value in the last text-entry box for each range.

You can specify a percentage from zero (transparent) to one hundred. Transparency is sometimes used to reveal background graphics.

8 **Optional**: To add a set point, click Add to End, and repeat steps 4 through 7.

9 Click **OK**.

**Editing Traffic Lighting Definitions**

- **To edit a Traffic Lighting definition:**

1 Right-click a member, and select Analysis Tools, then Analysis Tools Manager.

   Analysis Tools Manager is displayed.

2 Right-click a Traffic Lighting definition, and select **Edit**.

   The Traffic Lighting dialog box is displayed.

3 Make selections, and define parameters.

4 Click **OK**.

**Sorting**

The Sorting analysis tool orders dimensions of the query result set in ascending or descending alphanumeric order. Sorting definitions, which are created in the Sorting dialog box and displayed in the Information panel, are dynamic—applied as documents are drilled, pivoted, and changed.

You can use client-side and server-based sorting definitions:

- **Client-side sorting**—provided by Sorting and executed on local computers

- **Server-based sorting**—provided by Retrieve Only Top/Bottom and executed on Analytic Server; performed prior to returning the OLAP query result set to the client, thus minimizing the result set and network traffic

Multiple sorting definitions are applied in the order presented by Analysis Tools Manager. Sorting definitions applied to axes with equal values may be rearranged by sorting definitions applied to axes with diverse values. The document display is the result of the cumulative
application of all active sorting, client-side and server-side, but it may seem that only the last sorting definition was applied.

Table 29  Sorting Dialog Box

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort On</td>
<td>Specifies the member to which the sorting definition is applied</td>
</tr>
<tr>
<td>Order</td>
<td></td>
</tr>
<tr>
<td>Ascending</td>
<td>Selects ascending alphanumeric order</td>
</tr>
<tr>
<td>Descending</td>
<td>Selects descending alphanumeric order</td>
</tr>
<tr>
<td>Apply</td>
<td>Apply the definition to the document</td>
</tr>
</tbody>
</table>

Creating Sorting Definitions

➢ To create a sorting definition:

1. Right-click a member, and select Analysis Tools, then Sort.
   The Sorting dialog box is displayed.
2. From Members, select the member to which sorting is to be applied.
3. Select Ascending or Descending.
4. Click OK.

Editing Sorting Definitions

➢ To edit a sorting definition:

1. Right-click a member, and select Analysis Tools, then Analysis Tools Manager.
   The Analysis Tools Manager is displayed.
2. Right-click a sorting definition, and select Edit.
   The Sorting dialog box is displayed.
3. Make selections and define parameters.
4. Click OK.

Restrict Data

The Restrict Data analysis tool narrows the return set by requiring data values to be relevant to rules and operands. Data can be restricted by two-column comparison or single-column fixed limits.
The Information panel displays Analytic Services Restrict Data definitions for the current document.

Because Restrict Data is executed by Analytic Services, the network server is protected from transmitting and the client is protected from processing large result sets.

Users can apply Restrict Data to result sets of processed queries (using the Analysis Tools right-click menu) and of unsubmitted queries. The last step of the new document wizard enables users to create Restrict Data definitions.

### Table 30  Restrict Data Dialog Box

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Column</td>
<td>Displays the Select Column dialog box, used to select a column from the current document</td>
</tr>
</tbody>
</table>
| Operator menu | Specifies an operator: Greater than (>), Greater Than or Equal To (>=), Equal to (=), Less Than or Equal To (<=), Less Than (<), Not Equal To (<>)
| Operand menu  | Specifies one of three operands:
|               | l A value Of—restricts data to a value or range of values
|               | l The Data Value of Column—displays a secondary Select Column button, used to compare two columns
|               | l A Missing Value—restricts missing values
| Value Text box| Specifies values for Restrict Data conditions                                     |

**Note:** It is advised to use one member per dimension in filters when restrict data or retrieve top/bottom is applied. If multiple members are selected per dimension, the application aggregates results. Because restrict data and retrieve top/bottom are parts of Analytic Services queries, aggregation occurs after queries are returned and may result in unexpected result sets.

### Creating Restrict Data Definitions

To create a Restrict Data definition:

1. **Right-click a member, and select Analysis Tools, then Restrict Data.**
   The Restrict Data dialog box is displayed.

2. **From Select Column, select a column on which to restrict data.**

3. **From Operator, select an operator.**

4. **From Operand, select an operand: A Value Of, The Data Value of Column, or A Missing Value.**

5. **Depending on the selected operand, perform an action:**
   - A Value Of — For Value, enter a data value.
   - The Data Value of Column — From the relevant list, select a column.
   - A Missing Value — Do nothing.

6. **Click Add.**
Four buttons are available: Add, Update, Remove, and Remove All.

Restriction criteria is listed in the Restriction Definition frame. You can use the Advanced button to create compound definitions.

**Table 31  Advanced Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Submenu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add</td>
<td></td>
<td>Add the rule to Total Subset Definition</td>
</tr>
<tr>
<td>Update</td>
<td></td>
<td>Replace the selected rule with the current rule</td>
</tr>
<tr>
<td>Validate</td>
<td></td>
<td>Verify the parenthetical syntax of Total Subset Definition</td>
</tr>
<tr>
<td>Remove</td>
<td></td>
<td>Remove the rule from Total Subset Definition</td>
</tr>
<tr>
<td>Remove All</td>
<td></td>
<td>Remove all rules from Total Subset Definition</td>
</tr>
<tr>
<td>Connect</td>
<td>And</td>
<td>Insert AND at the end of the rule. AND is used by default when multiple rules are added.</td>
</tr>
<tr>
<td></td>
<td>Or</td>
<td>Insert OR at the end of the rule</td>
</tr>
<tr>
<td>Move</td>
<td>Move Up</td>
<td>Move the rule up in Total Subset Definition</td>
</tr>
<tr>
<td></td>
<td>Move Down</td>
<td>Move the rule down in Total Subset Definition</td>
</tr>
</tbody>
</table>

7 **Optional:** To compose a compound rule, select an advanced connect option, and repeat steps 2 through 7.

8 **Click OK.**

**Editing Restrict Data Definitions**

➢ To edit a Restrict Data definition:

1 Right-click a member, and select Analysis Tools, then Analysis Tools Manager. Analysis Tools Manager is displayed.

2 Right-click a Restrict Data definition, and select Edit. The Restrict Data dialog box is displayed.

3 Make selections and define parameters.

4 Click OK.

**Retrieve Only Top/Bottom**

The Retrieve Only Top/Bottom analysis tool, central to top/bottom analysis, leverages Analytic Services server-based sorting and ranking to control the size and order of OLAP query result sets. Thus, the network server is protected from transmitting and the client is protected from processing large result sets.
You can apply Retrieve Only Top/Bottom to result sets of processed queries (using the Analysis Tools right-click menu) and to result sets of unsubmitted queries. Prior to sending queries, click the Data Layout Options button and select Retrieve Only Top/Bottom. During query creation, use the last step of the new document wizard.

The Information panel displays all Analytic Services Retrieve Only Top/Bottom definitions for the current document.

**Server-Based Sorting**

Server-based sorting is provided by Retrieve Only Top/Bottom and executed on Analytic Server. Server-based sorting is performed by the server prior to returning the OLAP query result set to the client, thus minimizing the result set and network traffic.

**Multiple, Filter-Axis Members**

Multiple, filter-member selections impact Retrieve Only Top/Bottom.

Multiple filter-axis members are aggregated before they are sent queries. Because client-based aggregation does not exist in data source servers, queries are processed using server data values. The discrepancy between client aggregations and server-based sorting and ranking results in irregular result sets.

**Note:** Users are strongly advised to use one member per dimension in filters when using Retrieve Only Top/Bottom and Restrict Data.

### Table 32 Retrieve Only Top/Bottom Dialog Box

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Column</td>
<td>Specifies the columns to which the Retrieve Only Top/Bottom definition is to be applied</td>
</tr>
<tr>
<td>Show</td>
<td>Limits the result set to the specified criteria</td>
</tr>
<tr>
<td>Top</td>
<td>Selects the highest data value, as indicated by the number in the relevant box</td>
</tr>
<tr>
<td>Bottom</td>
<td>Selects lowest data value, as indicated by the number in the relevant box</td>
</tr>
<tr>
<td>Sorting</td>
<td></td>
</tr>
<tr>
<td>Ascending</td>
<td>Displays the result set in ascending alphanumeric order</td>
</tr>
<tr>
<td>Descending</td>
<td>Displays the result set in descending alphanumeric order</td>
</tr>
<tr>
<td>Clear</td>
<td>Deletes all Retrieve Only Top/Bottom definitions</td>
</tr>
</tbody>
</table>
Creating Retrieve Only Top/Bottom Definitions

To create a Retrieve Only Top/Bottom definition:
1 Right-click a member, and select Analysis Tools, then Retrieve Only Top/Bottom.
The Retrieve Only Top/Bottom dialog box is displayed.
2 From Column, select the column to which the Retrieve Only Top/Bottom definition.
3 Limit the result set by selecting Top or Bottom and, in the relevant box, indicating the number of members.
4 Sort the result set by selecting Ascending or Descending.
5 Optional: To remove all selections from the current definition and start over, click Clear.
6 Click OK.

Editing Retrieve Only Top/Bottom Definitions

To edit a Retrieve Only Top/Bottom definition:
1 Right-click a member, and select Analysis Tools, then Analysis Tools Manager.
Analysis Tools Manager is displayed.
2 Right-click a Retrieve Only Top/Bottom definition, and select Edit.
The Retrieve Only Top/Bottom dialog box is displayed.
3 Make selections and define parameters.
4 Click OK.
5 Click Close.

Editing Data Formatting Definitions

To edit a data formatting definition:
1 Right-click a member, and select Analysis Tools, then Analysis Tools Manager. Analysis Tools Manager is displayed.
2 Right-click a formatting definition, and select Edit.
The Formatting dialog box is displayed.
3 Make selections and define parameters.
4 Click OK.
## Spreadsheet Options

All spreadsheet formatting options are set using the Spreadsheet Options dialog box, accessed from the spreadsheet data object shortcut menu. You can set these options for all spreadsheets subsequently created using Spreadsheet preferences.

<table>
<thead>
<tr>
<th>Spreadsheet Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display</strong></td>
<td></td>
</tr>
<tr>
<td>Gridlines</td>
<td>Sets the spreadsheet to display table gridlines.</td>
</tr>
<tr>
<td>Transparent</td>
<td>Makes the cell background transparent to display a spreadsheet background image.</td>
</tr>
<tr>
<td>Row Banding</td>
<td>Sets spreadsheet rows to display alternating banding.</td>
</tr>
<tr>
<td>Column Banding</td>
<td>Sets spreadsheet columns to display alternating banding.</td>
</tr>
<tr>
<td>Background Color</td>
<td>Opens the Select Color dialog box, to set the background color.</td>
</tr>
<tr>
<td>Background Image</td>
<td>Opens the Select Background Image dialog box.</td>
</tr>
<tr>
<td>Row Band Color</td>
<td>Opens the Select Color dialog box, to set the color of row banding.</td>
</tr>
<tr>
<td>Column Band Color</td>
<td>Opens the Select Color dialog box, to set the color of column banding.</td>
</tr>
<tr>
<td><strong>Headers</strong></td>
<td></td>
</tr>
<tr>
<td>Custom Row Height</td>
<td>Sets a fixed height for spreadsheet rows in point size (from 20-200).</td>
</tr>
<tr>
<td>Row Titles</td>
<td>Displays column headers for nested rows.</td>
</tr>
<tr>
<td>Row Header Alignment</td>
<td>Aligns row headers left, center, or right or indents them based on generation.</td>
</tr>
<tr>
<td>Indent Amount</td>
<td>Indicates the number of pixels to indent row headers for each level from the top of the dimension hierarchy.</td>
</tr>
<tr>
<td>Row Group Alignment drop-down list</td>
<td>Aligns rows as a group center, top, or bottom in a cell.</td>
</tr>
<tr>
<td>Header Font</td>
<td>Displays the Font Properties dialog box, enabling the selection of header fonts and font formatting.</td>
</tr>
<tr>
<td>Header Background Color</td>
<td>Opens the Select Color dialog box, where you can set the header background color.</td>
</tr>
<tr>
<td>Sample Header</td>
<td>Displays the current header formatting.</td>
</tr>
<tr>
<td>Column Header Alignment</td>
<td>Justifies column headers; Center (default), Left or Right.</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td></td>
</tr>
<tr>
<td>Align Text</td>
<td>Sets the alignment of textual data values: left, center, and right.</td>
</tr>
<tr>
<td>Align Values</td>
<td>Sets the alignment of numeric data values: left, center, and right.</td>
</tr>
<tr>
<td>Cell Font</td>
<td>Displays the Font Properties dialog box enabling the selection of data value fonts and font formatting.</td>
</tr>
</tbody>
</table>

**Note:** Font sizes are limited to a maximum of 100 points.
<table>
<thead>
<tr>
<th>Spreadsheet Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Background Color</td>
<td>Opens the Select Color dialog box where you can set the cell background color; does not override banding.</td>
</tr>
<tr>
<td>Sample Cell</td>
<td>Displays the current data values formatting.</td>
</tr>
</tbody>
</table>

### Sizing Columns

Columns can be individually sized, uniformly sized, or reset to their default column width.

The Freeze Headers formatting option must be enabled in the preferences or the Spreadsheet Options dialog box before you can size columns.

### Sizing Individual Columns

- To size a column:
  - Right-click a column header and select **Column Sizing > Custom Width** from the shortcut menu. When the Column Width dialog box is displayed, enter the desired column width in pixels. The default is 75 pixels.

### Sizing All Columns to a Common Width

- To size all columns uniformly:
  1. **To size one column:**
     - Position your mouse over the border between two column headers. When the cursor changes to the double-arrow cursor, drag the column border to adjust the column width.
     - Right-click a column header and select **Column Sizing, then Set Column Width** from the shortcut menu. When the Column Width dialog box is displayed, enter the desired column width in pixels.
  2. **When you are satisfied the selected column size, right-click that column and select **Column Sizing, then Set All Columns To This Width.**

    The remaining columns are automatically resized to the selected column’s width.

### Autosizing Column Width

- To size all column widths so that headers display without truncation, select **Column Sizing > Autosize** from the header shortcut menu.

**Note:** You must save the document before closing it to preserve the column widths.
Formatting Documents

Formatting Options
Documents display data values returned from the data source in a data object. Multiple data objects can occupy a document, and each data object’s display type can differ:

- Spreadsheet
- Chart
- Pinboard
- SQL Spreadsheet
- Freeform grid

Each display type has formatting options. This chapter describes the formatting options for spreadsheets and charts, as only these two objects can be modified through EPM Workspace.

Other Kinds of Formatting

- **Display Type** — Converts spreadsheet data objects to charts or pinboards.
- **Data Display options** — Sets document behavior through the data object shortcut menu (or preferences, for subsequently created documents).
- **Formatting options** — Formats dimension headers and cell ranges. You can restrict formatting by member selection or cell value. Formatting options include currency formatting and positive and negative numeric formatting. See “Formatting Options” on page 86. Formatting options include:
  - Measures formatting (Available in Oracle Hyperion Web Analysis Studio only)
  - Default formatting preferences
  - Ad hoc formatting
  - Data formatting analysis tool
  - Cell Formatting
    - See “Formatting Data” on page 93.

The scope of formatting depends on its source. To review all formatting definitions applied to a document, you must consult preferences, the Analysis Tools Manager, the Information Panel, and various document, data object, dimension and cell property settings.

Formatting Order of Precedence
Formatting is applied an order of precedence:
1. Measures formatting — Applied globally to dimensions on database connections. Settings are saved with the database connection.

2. Default formatting preferences — Applied globally to column and row headers, and data values. Settings are saved in preference files.

3. Formatting — Applied ad hoc from the data object shortcut menu on dimension members. It is stored with the document definition and applied as a preliminary Analysis Tool definition. See “Formatting Options” on page 86.

4. Data formatting analysis tool — Applied after Data Formatting Analysis Tool definitions are created and applied. It is stored with the document and applied from the Analysis Tools Manager.

5. Cell formatting — Applied ad hoc to cell ranges, and is stored with the document. See “Formatting Data” on page 93.

Preferences and formatting options:

There are some identical formatting options and preferences. Preferences are global settings applied to documents. Preferences, however, can be overridden by database connection formatting and document-based formatting.

The formatting order of precedence can be changed for Database Connection Measures formatting, User Preferences, and Analysis Tools formatting. For example, Analysis Tools formatting can be set to override all Database Connection and User Preferences formatting for a specific report.

Order of formatting precedence:

1. Formatting options saved with documents
2. Formatting options saved with the database connection
3. Formatting options specified by the User Preferences dialog box

**Data Display Options**

Each display type has data display options specifying document behavior:

- **Label mode**—Essbase and Oracle Hyperion Financial Management enable administrators to define multiple alias tables. Web Analysis Studio enables you to specify which alias table to use. Alias table selection is saved as a database connection property. See “Setting the Label Mode” on page 89.

- **Dimension header sort** — Order column and row headers in a query result set using Dimension Header Sort definitions. Dimension Header Sort options are determined by the data source. See “Sorting Dimension Headers” on page 90.

- **Suppression** — Suppresses rows with missing data, rows with zeroes, and in the case of Essbase, rows with shared members. Suppression can be set from the Data Layout dialog box, Data Display shortcut menu or OLAP Server preferences.
<table>
<thead>
<tr>
<th>Data Display Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Member</td>
<td>Displays the explicit member selection made in the query. This member selection can be previewed in the Information panel, or Dimension Browser. Selected Member provides a method for displaying this information in data objects.</td>
</tr>
<tr>
<td>Selected Member First</td>
<td>When Selected Member is active, enables you to position the explicit member selection made in the query definition first (from left to right, or top to bottom).</td>
</tr>
<tr>
<td>Default Label Mode</td>
<td>Toggles between label modes:</td>
</tr>
<tr>
<td></td>
<td>o Descriptions</td>
</tr>
<tr>
<td></td>
<td>o IDs</td>
</tr>
<tr>
<td></td>
<td>o Both (Financial Management option)</td>
</tr>
<tr>
<td>Dimension-Specific Label Mode</td>
<td>Toggles between label mode options:</td>
</tr>
<tr>
<td></td>
<td>o Use Default</td>
</tr>
<tr>
<td></td>
<td>o Descriptions</td>
</tr>
<tr>
<td></td>
<td>o IDs</td>
</tr>
<tr>
<td></td>
<td>o Both (Financial Management option)</td>
</tr>
<tr>
<td>Display Entity Currency</td>
<td>When using Financial Management data sources with defined Entity dimension currency information, you can enable the Display Entity Currency option to append Entity dimension members with currency value. This can be set before querying using Data Layout options, after querying using the Data Display shortcut menu, and for all subsequently created documents using OLAP Server preferences.</td>
</tr>
<tr>
<td>Dimension Header Sort</td>
<td>Orders the selected dimension per the order option:</td>
</tr>
<tr>
<td></td>
<td>o Default</td>
</tr>
<tr>
<td></td>
<td>o Ascending</td>
</tr>
<tr>
<td></td>
<td>o Descending</td>
</tr>
<tr>
<td></td>
<td>o Level (OLAP specific)</td>
</tr>
<tr>
<td></td>
<td>o Generation (OLAP specific)</td>
</tr>
<tr>
<td></td>
<td>o Selection Order (Relational specific)</td>
</tr>
<tr>
<td></td>
<td>The Default option is the order in which dimension members are naturally ordered by data source outlines. Using this option may offer improved performance.</td>
</tr>
<tr>
<td></td>
<td>For a complete description, See “Sorting Dimension Headers” on page 90.</td>
</tr>
<tr>
<td>Show Linked Reporting Object Indicators</td>
<td>Shows or hides small cell triangles indicating the presence of Linked Reporting Objects. Triangles persist for related content.</td>
</tr>
<tr>
<td>Suppress</td>
<td>Omits data, as specified, from the query result set:</td>
</tr>
<tr>
<td></td>
<td>o Missing Rows</td>
</tr>
<tr>
<td></td>
<td>o Missing Columns</td>
</tr>
<tr>
<td></td>
<td>o Shared Members</td>
</tr>
<tr>
<td></td>
<td>o Zero Rows</td>
</tr>
</tbody>
</table>
**Setting the Label Mode**

Alias tables are database tables storing alternate description labels for dimension members. Essbase and Financial Management enable administrators to define multiple alias tables. Web Analysis Studio enables you to specify which alias table to use. The alias table selection is saved as a database connection property.

You can specify to display the member ID or its description label from the alias table.

- The ID number is a column of unique values distinguishing members from all other members.
- Description displays the alias table description. Web Analysis Studio uses the Description label when no label mode is specified.

Financial Management users have an additional label mode option. They can select the Both option to display the ID label and description.

You can set the default label mode before querying using Data Layout options or the last step in the document creation wizard, and after querying using the data object shortcut menu. You can specify which description label to use in dimensions, using Dimension Browser and the data object shortcut menu.

The Description label comes from the alias table setting, saved per database connection and per active user as a database user preference.

> To set the default label mode for the current database connection:

1. Right-click dimension header.
2. Right-click and select Data Display.
3. Select Default Label Mode from the drop-down list.
4. Select IDs or Descriptions.

> To set the label mode for a dimension:

1. Right-click a dimension header.
2. Right-click and select Data Display.
3. Select the dimension-specific Label Mode from the drop-down list.
4. Select Use Default, IDs or Descriptions.

Default label mode coordinates the label mode of the selected dimension with all other dimensions displaying the default label mode. Default label mode can be set for all dimensions in a query through Data Layout, and per dimension by Dimension Browser or the Data Display shortcut menu.
Sorting Dimension Headers

You can order column and row headers in a query result set using Dimension Header Sort definitions. Dimension Header Sort options are determined by the data source.

For Example, Oracle Essbase enables you to order columns and rows in default, ascending, descending, level or generation order. The default order is the natural order in which dimension members are returned, based on the data source outline.

➢ To indicate a Dimension Header Sort definition:

1. Right-click a dimension member header and select Data Display, then Dimension Header Sort.
   The Dimension Header Sort submenu is displayed.
2. Select Default, Ascending, Descending, Level or Generation.

Relational Dimension Header Sort

You can order the result set returned by relational SQL queries in Ascending, Descending, Selection Order or Default order. Default returns members based on the data source outline. Selection Order is the member selection order in Dimension Browser.

Unlike OLAP servers, relational cubes are compiled by Web Analysis Studio, and the label mode, alias tables, and selection order are manually coordinated. Sort by alias may perform comparatively slow, as the default query result set is sorted by ID. Sorting by alias requires a complete client-side re-sort.

The source of the relational dimension header sort impacts performance. Defining a relational dimension header sort using Data Layout, prompts Web Analysis Studio to sort all dimensions as part of the current query result set.

Alternatively, sorting a relational dimension using the data object shortcut menu (Data Display > Dimension Header Sort) requires you to select dimension headers.

Lastly, you can apply dimension header sort definitions to relational generations defined in the Generation Editor. These definitions only impact the Dimension Browser sort order. Using the Order By Mode drop-down list, you can also specify orders by ID or Alias.

Formatting Dialog Box

The Formatting dialog box indicates the members to which these formats are applied:

- Header font properties by member.
- Data value format and font properties by member.
- Edit the dimension members selected for formatting.
- Restore default formatting preferences.
Control | Description
---|---
Selections | Lists dimensions and members in the query. The dimensions that appear are based on the context of where the Formatting dialog box was invoked. For example, if Formatting is invoked from the rows, all row dimension and members are displayed. If Formatting is invoked from a cell, all dimensions and members in the query are listed.

Advanced | Shows the Dimension panel that enables you to select or deselect dimensions and apply formatting to specific dimension combinations. This mainly applies when there are two or more dimensions in the columns or rows.

Dynamic References | Provides selection of row or column references instead of selecting members from a report. Formatting is applied regardless of the member selection.

Apply to entire grid | Applies formatting defined to the entire spreadsheet query. When selected, the Selections section is grayed and a Formatting “All Members” item is added to the Analysis Tools Manager.

Header Font tab | Allows formatting of member labels fonts in the row and column headers.

Data Font tab | Allows formatting of data cells fonts. Conditional font or number formatting can be applied to specific data values that meet the defined criteria.

Data Format tab | Provides formatting to specific data values such as currency/prefix/suffix, as well as other numeric formatting. Conditional font or number formatting can be applied to specific data values that meet the defined criteria.

Conditional Formatting | Enables conditional formatting of dimension member selections based on the criteria defined in the operand drop-down list and value text box.

Conditional Formatting — Operand drop-down list | Specifies the conditional formatting operand: >, >=, =, <=, <, or <>.

Conditional Formatting — Value Text box | Specifies the conditional formatting value.

Restore Defaults | Restores the settings specified by the Default Formatting preferences.

**Formatting Behavior**

The behavior for the members that are selected prior to opening the Formatting dialog:

- When you right-click a column or row header and select Formatting, the context is completed automatically for the row or column member selections. This context can be edited and different member selections can be made.
- When you right-click a cell and select Cell Formatting, the context is completed for the cell intersection of members. This context cannot be edited.
- When you right-click a column or row header and select Analysis Tools > Format, the Formatting dialog is opened without completed context.
- If the number of members in a dimension on a report exceeds 25, the dimension parent node is collapsed. You can click the node to expand it.
- If there is more than one dimension in the rows or columns, you can select from one dimension only or multiple dimensions.
Using Dynamic References

Instead of selecting members from a report, you can use Dynamic References to select a row or column reference. Formatting is applied regardless of the member selection. Also:

- If a member is drilled on, its formatting will “carry with it”.
- If a swap or pivot is performed, the formatting will “carry” where possible.

Topics that discuss formatting:

- “Creating Formatting Definitions” on page 92
- “Formatting Data” on page 93

Creating Formatting Definitions

To create formatting definitions:

1. Right-click a column or row dimension header.
2. Select Formatting.
   The Formatting dialog box is displayed.
3. Optional. To display the Dimensions panel, click Advanced.
4. To select a dimension, click its check box.
   If you select one dimension from the Dimensions panel, the corresponding dimension members are displayed in the Combinations panel.
   If you select multiple dimensions from the Dimensions panel, the Combinations panel displays dimension member aggregations.
5. To specify dimension members, click the check boxes in the Combinations panel.
6. To specify a formatting definition, perform an action:
   - To specify header cell font properties for the dimension member selection, click the Header Font tab.
   - To specify data cell font properties for the dimension member selection, click the Data Font tab.
   - To specify leading and trailing text and numeric formatting, click the Data Format tab.
     See “Formatting Data” on page 93.

   Note: The Data Font and Data Format tabs provide conditional formatting where you can refine formatting definitions. Select Conditional Formatting, then select an operand and specify a value.
7. Click OK to accept the formatting definition properties for the dimension member selection.
   The formatting definition is listed in Analysis Tools Manager for future reference, and the definition is applied to the document.
### Formatting Data

You define format definitions in the Data Format tab:

<table>
<thead>
<tr>
<th>Formatting Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditional Formatting</td>
<td>Enables conditional formatting of dimension member selections based on the criteria defined in the operand drop-down list and value text box.</td>
</tr>
<tr>
<td>Replace Missing With</td>
<td>Enables you to replace missing data with zeros or text that you specify.</td>
</tr>
<tr>
<td><strong>Leading and Trailing Formatting</strong></td>
<td></td>
</tr>
<tr>
<td>Currency Symbol</td>
<td>Inserts currency formatting symbols into the Positive Prefix and Negative Prefix text boxes.</td>
</tr>
<tr>
<td>Positive Prefix</td>
<td>Specifies the character to precede positive numeric values.</td>
</tr>
<tr>
<td>Positive Suffix</td>
<td>Specifies the character to follow positive numeric values.</td>
</tr>
<tr>
<td>Negative Prefix</td>
<td>Specifies the character to precede negative numeric values. <strong>Caution:</strong> The minus sign (-) is the default prefix. Deleting the default prefix without replacing it displays negative values as positive.</td>
</tr>
<tr>
<td>Negative Suffix</td>
<td>Specifies the character to follow negative numeric values.</td>
</tr>
<tr>
<td><strong>Numeric Formatting</strong></td>
<td></td>
</tr>
<tr>
<td>Grouped Thousands</td>
<td>Displays numeric digits as grouped by thousands.</td>
</tr>
<tr>
<td>Minimum Decimals</td>
<td>Indicates the minimum number of decimal places displayed.</td>
</tr>
<tr>
<td>Maximum Decimals</td>
<td>Indicates the maximum number of decimal places displayed.</td>
</tr>
<tr>
<td>Scale</td>
<td>Enables abbreviated values by tens, hundreds, thousands, ten-thousands, hundred-thousands, millions, and billions.</td>
</tr>
<tr>
<td>Use Negative Color</td>
<td>Indicates that negative numbers are signified by a selected color.</td>
</tr>
<tr>
<td>Select Negative Color</td>
<td>Enables you to select the color representing negative values.</td>
</tr>
<tr>
<td><strong>Samples</strong></td>
<td></td>
</tr>
<tr>
<td>Update Samples</td>
<td>Updates the samples panel based on the most recent formatting selections.</td>
</tr>
</tbody>
</table>

### Cell Formatting

The Cell Formatting dialog box enables you to format cell ranges ad hoc.

- Format data value font properties for cell ranges.
- Set text and numeric formatting for cell ranges.
- Restore default formatting preferences.

To define cell formatting, right-click a spreadsheet cell and select Cell Formatting:
<table>
<thead>
<tr>
<th>Controls</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selections</td>
<td>Displays the cell dimension member selection statement.</td>
</tr>
<tr>
<td>Data Font tab</td>
<td>Enables you to select font properties for the cell.</td>
</tr>
<tr>
<td>Data Format tab</td>
<td>Enables you to specify text and numeric formatting.</td>
</tr>
<tr>
<td>Restore Defaults</td>
<td>Restores the settings specified by the Default Formatting preferences.</td>
</tr>
</tbody>
</table>

**Sizing Columns**

Columns can be individually sized, uniformly sized, or reset to their default column width.

The Freeze Headers formatting option must be enabled in the preferences or the Spreadsheet Options dialog box before you can size columns.

**Sizing Individual Columns**

- To size a column:
  - Right-click a column header and select **Column Sizing > Custom Width** from the shortcut menu. When the Column Width dialog box is displayed, enter the desired column width in pixels. The default is 75 pixels.

**Sizing All Columns to a Common Width**

- To size all columns uniformly:
  1. **To size one column:**
     - Position your mouse over the border between two column headers. When the cursor changes to the double-arrow cursor, drag the column border to adjust the column width.
     - Right-click a column header and select **Column Sizing, then Set Column Width** from the shortcut menu. When the Column Width dialog box is displayed, enter the desired column width in pixels.
  2. When you are satisfied the selected column size, right-click that column and select **Column Sizing, then Set All Columns To This Width**.

    The remaining columns are automatically resized to the selected column’s width.

**Autosizing Column Width**

- To size all column widths so that headers display without truncation, select **Column Sizing > Autosize** from the header shortcut menu.

**Note:** You must save the document before closing it to preserve the column widths.
Changing and Locking Display Types

To change the current display type, select the Display menu, and select a display type or chart type from the submenu.

To prevent others from changing the current display type:
1 Right-click the current content tab and select Properties.
   The File Properties dialog box is displayed.
2 Select the Advanced tab.
3 In Document Usage, select Change Display Type.
4 Click OK.

Charts and Chart Types

Charts are graphic representations of spreadsheet data. Their visual nature expedites quick analysis, color coding, and cues that aid comparisons.

Charts, depending on the chart type, can display one to four dimensions. Pie charts only display one dimension; quadrant charts offer more complex displays.

Charts can be rendered using a variety of chart types:

<table>
<thead>
<tr>
<th>Chart Type</th>
<th>Compares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>Similar elements, represented as vertical bars.</td>
</tr>
<tr>
<td>Line</td>
<td>Items over time.</td>
</tr>
<tr>
<td>Spline</td>
<td>Displays the document as a spline chart.</td>
</tr>
<tr>
<td>Pie</td>
<td>Contributions.</td>
</tr>
<tr>
<td>Area</td>
<td>Items over time.</td>
</tr>
<tr>
<td>Curve Area</td>
<td>Items over time, represented as a curved area.</td>
</tr>
<tr>
<td>Horizontal Bar</td>
<td>Similar elements.</td>
</tr>
<tr>
<td>Marks</td>
<td>Items over time.</td>
</tr>
<tr>
<td>Pareto</td>
<td>Trends in data.</td>
</tr>
<tr>
<td>Box</td>
<td>Displays the document as a box plot chart.</td>
</tr>
<tr>
<td>Quadrant</td>
<td>Two members from one dimension over time.</td>
</tr>
<tr>
<td>Bubble</td>
<td>Displays the document as a Bubble chart.</td>
</tr>
</tbody>
</table>

Only the first 50 dimension members can be accommodated on chart axes.
Quadrant Charts

In Quadrant charts, at least one dimension must be placed on the column axis and at least two dimensions must be placed on the rows axes. Other dimension-axes arrangements result in error messages.

Bubble Charts

Bubble charts require three dimensions. Only one dimension can be placed on the column axis. One or two dimensions can be placed on the row axis. There must be two columns in the dimension positioned on the columns axis. These columns may be the result of selecting two dimension members, or of including a calculated column with a dimension member. The values in the first two columns provide the X and Y values required to plot the chart.

A third column provides the Z value used to determine the bubble size. If no third column is available, a constant of 100 is used to determine the bubble size.

Chart Properties

Use the data object shortcut menu to access Chart Properties, described in the following topics:

- “General Chart Properties” on page 96— options for effects, object borders, chart backgrounds, and legends.
- “Titles Chart Properties” on page 97— options for chart titles.
- “Axes Chart Properties” on page 98— options for axes, number formatting, gridlines, scale, and labels.
- “Series Effects Chart Properties” on page 99— options for chart behavior and border formatting.
- “Series Chart Properties” on page 99— options for chart object properties.
- “Pie Chart Properties” on page 100— options for pie charts.
- “Bubble Chart Properties” on page 100— options for bubble charts.

General Chart Properties

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Layout</strong></td>
<td></td>
</tr>
<tr>
<td>Chart Type</td>
<td>Enables you to set the Chart Type: Bar, Line, Spline, Pie, Area, Curve Area, Horizontal Bar, Marks, Pareto, Multi, Box, Quadrant, and Bubble.</td>
</tr>
<tr>
<td>Stacked</td>
<td>Enables you to arrange chart objects: Side-by-Side, Stacked, and Stacked 100%.</td>
</tr>
<tr>
<td>Left Plot Area Margin</td>
<td>Enables you to specify a left margin for the plot area.</td>
</tr>
<tr>
<td>Right Plot Area Margin</td>
<td>Enables you to specify a right margin for the plot area.</td>
</tr>
</tbody>
</table>
### Control

<table>
<thead>
<tr>
<th><strong>Control</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effects</strong></td>
<td></td>
</tr>
<tr>
<td>3D</td>
<td>Represents chart objects in three-dimensional space.</td>
</tr>
<tr>
<td>Anti-alias Fonts</td>
<td>Enables and disables the use of anti-alias fonts. Although anti-alias fonts are clearer, they sometimes differ from the original font style.</td>
</tr>
<tr>
<td>Cluster (Z-axis)</td>
<td>Arranges chart objects along the Z axis in three-dimensional space.</td>
</tr>
<tr>
<td>Show Z-axis Labels</td>
<td>Displays labels along the Z axis (front to back). This feature is only available when the chart is clustered, and for Bar, Horizontal Bar, Pareto and Multichart chart types. Long Z-axis labels may be cut off by chart margins.</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td></td>
</tr>
<tr>
<td>Background Color</td>
<td>Displays the Select Color dialog box where you can set the chart background color.</td>
</tr>
<tr>
<td>Plot Area Color</td>
<td>Displays the Select Color dialog box where you can set the plotter background color.</td>
</tr>
<tr>
<td><strong>Legend</strong></td>
<td></td>
</tr>
<tr>
<td>Show Legend</td>
<td>Displays a chart legend.</td>
</tr>
<tr>
<td>Position</td>
<td>Locates the Legend to the Top, Left, Bottom, or Right of the chart.</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box to set the legend background color.</td>
</tr>
<tr>
<td>Font</td>
<td>Displays the Font Properties dialog box to select font and their formatting.</td>
</tr>
</tbody>
</table>

### Titles Chart Properties

<table>
<thead>
<tr>
<th><strong>Control</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Header Title</td>
<td>Sets the text string for the header title.</td>
</tr>
<tr>
<td>Footer Title</td>
<td>Sets the text string for the footer title.</td>
</tr>
<tr>
<td>Left Title</td>
<td>Sets the text string for the left title.</td>
</tr>
<tr>
<td>Right Title</td>
<td>Sets the text string for the right title.</td>
</tr>
<tr>
<td>Font</td>
<td>Displays the Font Properties dialog box to select font and their formatting.</td>
</tr>
</tbody>
</table>
## Axes Chart Properties

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Axis**  | Indicates the current axis:  
- X-axis - Sets the Axes tab to display x-axis parameters.  
- Y-axis - Sets the Axes tab to display y-axis parameters.  
- Secondary Y-axis - Set the Axes tab to display secondary y-axis parameters. See also Series Tab, Assign to Secondary Y-axis. |
| Show Axis | Displays the current axis. |

### Scale

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-calculate</td>
<td>Enables the current axis to be calculated automatically based on data values.</td>
</tr>
<tr>
<td>Start at Minimum Value</td>
<td>Indicates whether to start numeric labels with the minimum value.</td>
</tr>
<tr>
<td>Minimum</td>
<td>Sets the minimum value on the current axis.</td>
</tr>
<tr>
<td>Maximum</td>
<td>Sets the maximum value on the current axis.</td>
</tr>
<tr>
<td>Step</td>
<td>Sets the number of increments to scale on the current axis.</td>
</tr>
<tr>
<td>Scale</td>
<td>Enables you to indicate the multiple by which to scale the current axis: None, Tens, Hundreds, Thousands, Ten Thousands, Hundred Thousands, Millions, or Billions.</td>
</tr>
</tbody>
</table>

### Gridlines

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show Gridlines</td>
<td>Displays gridlines on the current axis.</td>
</tr>
<tr>
<td>Style</td>
<td>Represents gridlines using one style: Solid Line, Dash, Dot, and Dash Dot.</td>
</tr>
<tr>
<td>Weight</td>
<td>Sets the width of gridlines in pixels (from 1-8).</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box where you can select a gridline color.</td>
</tr>
</tbody>
</table>

### Number Format

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decimal Places:</td>
<td>Enables you to set the number of decimal places used to represent data values (0-10).</td>
</tr>
<tr>
<td>Format:</td>
<td>Enables you to set the numeric format for data values: Numeric, Currency, Percent.</td>
</tr>
<tr>
<td>Currency Symbol:</td>
<td>Inserts currency formatting symbols.</td>
</tr>
</tbody>
</table>

### Labels

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stagger</td>
<td>Alternates labels on two lines to accommodate larger labels.</td>
</tr>
<tr>
<td>Angle</td>
<td>Enables you to indicate the angle at which labels extend from the current axis: 0-360 degrees.</td>
</tr>
<tr>
<td>Font</td>
<td>Displays the Font Properties dialog box to select fonts and their formatting.</td>
</tr>
</tbody>
</table>
Series Effects Chart Properties

Series Effects chart properties impact all chart object series in general. Series chart properties are applied only to specific series.

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Charting</strong></td>
<td></td>
</tr>
<tr>
<td>Number of Groups Displayed</td>
<td>Specifies the number of chart object groups to display.</td>
</tr>
<tr>
<td>Chart All Dimensions</td>
<td>Delineates nested dimensions for chart type requirements and displays each combination set as a series. Chart type requirements differ for dimension member position and number. When dimension members exceed a requirement, surplus dimensions are relocated to the page axis so that the designated chart type can be displayed. Enabling Chart All Dimensions prompts Oracle Hyperion Web Analysis Studio to delineate nested dimensions and display each combination set as a series.</td>
</tr>
<tr>
<td><strong>Borders</strong></td>
<td></td>
</tr>
<tr>
<td>Show Borders</td>
<td>Represents chart objects with a border or outline.</td>
</tr>
<tr>
<td>Style</td>
<td>Represents the chart object border using one style: Solid Line, Dash, Dot, and Dash Dot.</td>
</tr>
<tr>
<td>Width</td>
<td>Sets the width of chart object border in pixels (from 1-8).</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box where you can set the border color.</td>
</tr>
</tbody>
</table>

Series Chart Properties

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>Indicates the current dimension member chart object series.</td>
</tr>
<tr>
<td><strong>Style</strong></td>
<td></td>
</tr>
<tr>
<td>Show Series</td>
<td>Displays the current series.</td>
</tr>
<tr>
<td>Type</td>
<td>Sets the chart type for the series when multiple chart types are enabled: Bar, Line, Area, Spline and Curve Area.</td>
</tr>
<tr>
<td>Shape</td>
<td>Sets the series chart object to one shape: Bar, Cylinder, Diamond Bar, or Triangle Bar.</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Fill Properties dialog box where you can set chart object color, pattern fill, or gradient.</td>
</tr>
<tr>
<td>Assign to Secondary Y-axis</td>
<td>Displays the current series on the secondary y-axis.</td>
</tr>
<tr>
<td><strong>Markers</strong></td>
<td></td>
</tr>
<tr>
<td>Style</td>
<td>Sets the series to one marker: None, Square, Circle, Triangle-Up, Diamond, Cross, Triangle-Down, or Multiple Chart Type.</td>
</tr>
<tr>
<td>Size</td>
<td>Sets the size of the series marker in pixels (1-20).</td>
</tr>
<tr>
<td>Control</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Point Values</strong></td>
<td></td>
</tr>
<tr>
<td>Show Values</td>
<td>Displays data values with the series.</td>
</tr>
<tr>
<td>Font</td>
<td>Displays the Font Properties dialog box where you can select font and their formatting.</td>
</tr>
<tr>
<td>Angle:</td>
<td>Indicates the angle at which value labels extend from the current series: 0-360 degrees.</td>
</tr>
<tr>
<td><strong>Lines</strong></td>
<td></td>
</tr>
<tr>
<td>Style</td>
<td>Represents the chart object border using one style: Solid Line, Dash, Dot, and Dash Dot.</td>
</tr>
<tr>
<td>Width</td>
<td>Sets the width of chart object border in pixels (from 0-8).</td>
</tr>
<tr>
<td>Apply selections to all.</td>
<td>Sets all series to the parameters of the current series.</td>
</tr>
</tbody>
</table>

**Line Widths of Zero (0)**

Line charts accommodate a line width of zero, enabling a line chart to appear as a marks chart. This applies only to **two-dimensional** line, quadrant, multichart, spline, area, and curve area chart types.

**Pie Chart Properties**

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Values</strong></td>
<td></td>
</tr>
<tr>
<td>Values</td>
<td>Indicates the current pie slice.</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box to set color, pattern fill or gradient scale for the current slice.</td>
</tr>
<tr>
<td><strong>Labels</strong></td>
<td></td>
</tr>
<tr>
<td>Show Values</td>
<td>Displays data values with pie slices.</td>
</tr>
<tr>
<td>Position</td>
<td>Indicates where to display labels: Inside Slices or Outside Slices.</td>
</tr>
<tr>
<td>Font</td>
<td>Displays the Font Properties dialog box where you can select font and their formatting.</td>
</tr>
<tr>
<td>Show Multiple Pies</td>
<td>Sets Page Dimensions to be displayed as multiple pie charts in one document.</td>
</tr>
</tbody>
</table>

**Bubble Chart Properties**

Bubble charts require three dimensions. Only one dimension can be placed on the column axis. Up to two dimensions can be placed on the row axis. There must be two columns in the dimension positioned on the columns axis. These columns may be the result of selecting two dimension members, or the result of including a calculated column with a dimension member. The values in the first two columns provide the X and Y values required to plot the chart.
A third column provides the Z value used to determine the bubble size. If no third column is available, a constant of 100 is used to determine the bubble size.

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effects</strong></td>
<td></td>
</tr>
<tr>
<td>Marker Style:</td>
<td>Sets the bubble chart to be displayed using these options: none, square, circle, Triangle Up, Diamond, Cross, Triangle Down, or Multi.</td>
</tr>
<tr>
<td>Maximum Size:</td>
<td>Sets the maximum bubble object size in points.</td>
</tr>
<tr>
<td>Show Points</td>
<td>Displays plot points.</td>
</tr>
<tr>
<td>Point Color</td>
<td>Sets the color of the center point.</td>
</tr>
<tr>
<td><strong>Values</strong></td>
<td></td>
</tr>
<tr>
<td>X-member Values:</td>
<td>Indicates the dimension member used to plot x-axis values.</td>
</tr>
<tr>
<td>Y-member Values:</td>
<td>Indicates the dimension member used to plot y-axis values.</td>
</tr>
<tr>
<td>Z values:</td>
<td></td>
</tr>
<tr>
<td>Z member Values:</td>
<td>Indicates the third column used to plot the size of bubble chart objects.</td>
</tr>
<tr>
<td><strong>Scaling</strong></td>
<td></td>
</tr>
<tr>
<td>Minimum Scaling:</td>
<td>Sets the minimum bubble size when the bubble object size has reached the Maximum Size limit.</td>
</tr>
<tr>
<td>Maximum Scaling:</td>
<td>Sets the maximum bubble size when the bubble object size has reached the Maximum Size limit.</td>
</tr>
<tr>
<td>Scale On:</td>
<td>Sets the bubble chart to determine scale using area or diameter.</td>
</tr>
<tr>
<td><strong>Borders</strong></td>
<td></td>
</tr>
<tr>
<td>Show Borders</td>
<td>Displays or hides the bubble borders.</td>
</tr>
<tr>
<td>Use Traffic Lights for Colors</td>
<td>Sets the bubble object border to use colors specified in the traffic lighting definition; only one dimension, with a traffic lighting definition, can be positioned on the rows axis</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box.</td>
</tr>
<tr>
<td>Border Width:</td>
<td>Sets the border width in pixels.</td>
</tr>
</tbody>
</table>

**Selecting Color**

The Select Color dialog box enables you to set object, font, and component colors.
### Swatches Tab

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent</td>
<td>Displays recently selected colors.</td>
</tr>
<tr>
<td>RGB Float Over Values</td>
<td>Displays the Red-Green-Blue color values when mouse is floated over a color.</td>
</tr>
</tbody>
</table>

### HSB Tab

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hue</td>
<td>Sets the percentage of hue in the current color.</td>
</tr>
<tr>
<td>Saturation</td>
<td>Sets the percentage of saturation in the current color.</td>
</tr>
<tr>
<td>Brilliance</td>
<td>Sets the percentage of brilliance in the current color.</td>
</tr>
<tr>
<td>Red</td>
<td>Displays the red value of the current color.</td>
</tr>
<tr>
<td>Green</td>
<td>Displays the green value of the current color.</td>
</tr>
<tr>
<td>Blue</td>
<td>Displays the blue value of the current color.</td>
</tr>
</tbody>
</table>

### RGB Tab

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Displays the red value of the current color.</td>
</tr>
<tr>
<td>Green</td>
<td>Displays the green value of the current color.</td>
</tr>
<tr>
<td>Blue</td>
<td>Displays the blue value of the current color.</td>
</tr>
<tr>
<td>Preview</td>
<td>Displays the application of the current color.</td>
</tr>
</tbody>
</table>

### Font Properties

The Font Properties dialog box enables font selection and formatting.

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Font</td>
<td>Sets the font family.</td>
</tr>
<tr>
<td>Size</td>
<td>Sets the font point size. Note: Fonts are limited to 100 points in size.</td>
</tr>
</tbody>
</table>

### Font Style

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bold</td>
<td>Displays the bold font.</td>
</tr>
<tr>
<td>Italic</td>
<td>Displays the italic font.</td>
</tr>
<tr>
<td>Color</td>
<td>Displays the Select Color dialog box, to enable font color selection.</td>
</tr>
<tr>
<td>Sample Text</td>
<td>Displays the current font selection.</td>
</tr>
</tbody>
</table>
Calculations

You can create client-side calculated members, and edit, delete, and analyze these calculations. The order of calculation definitions in the Analysis Tools Manager establishes a precedent for subsequent compound calculations. You can change the order of calculation definitions, by selecting the definition and clicking the up and down arrow buttons.

The “Creating Calculations” on page 109 procedure describes Calculation analysis tool options in context.

Absolute Value

- Function Performed — Returns the absolute value of a numeric value. The absolute value of a number is that number without a negative sign. A negative number becomes positive, while a positive number remains positive.
- Number of Arguments — One member or calculation.
- Options — Whether missing values should be set to 0 in the calculation and included in the number of arguments.

Example — If Actual is -100, the Absolute Value of Actual is 100.

Average

- Function Performed — Sum of all arguments divided by the number of arguments.
- Number of Arguments — Two or more members or calculations.
- Options — Whether missing values should be set to 0 in the calculation and included in the number of arguments.

Example — If Actual is 100 and Budget is 200, the Average of Actual and Budget is 150.

Cumulative

- Function Performed — Provides a running total.
- Number of Arguments — One member or calculation.
- Options — Whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with Actual as a column and Colas, Root Beer, and Cream Soda as rows. If the Actual values for these products were 100, 200, and 300, the Cumulative column would be 100, 300, 600.
**Difference from Average**

- **Function Performed** — Subtracts each argument’s average value from each occurrence of the argument.
- **Number of Arguments** — One member or calculation.
- **Options** — Whether missing values should be set to 0 for the purposes of the calculation.

Example — Consider a spreadsheet with Actual as a column and Colas, Root Beer, and Cream Soda as rows. If the Actual values for these products were 100, 200, and 300, the average would be 200. So the Difference from Average column would be -100, 0, 100.

**Divide**

- **Function Performed** — Arithmetic division.
- **Number of Arguments** — Two members or calculation.
- **Options** — Whether missing values should be set to zero in the calculation.

**Linear Regression**

- **Function Performed** — Straight-line linear regression. Looks at all occurrences of the specified argument, and uses a linear regression algorithm to calculate a ‘straight line’ through the occurrences.
- **Number of Arguments** — One member or calculation.
- **Options** — Whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with Actual as a column and Jan, Feb, Mar as rows. If the Actual values for these time periods were 100, 300, and 600, the Linear Regression column would be 83, 333, 583. Notice that there is now a constant difference between each value (250). All points in the sequence are adjusted. A chart of these numbers would produce a straight line that goes through the original data points.

**Maximum**

- **Function Performed** — Given two or more arguments, Maximum returns the name of the member or calculation that has the maximum value.
- **Number of Arguments** — Two or more members or calculations.
- **Options** — Whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with East and West as columns and Jan, Feb, Mar as rows. If the East values were 100, 300, and 600 and the West values were 200, 200, 300, the Maximum column would be West, East, East.
Maximum Value

- **Function Performed** — Given two or more arguments, Maximum Value returns the value of the member or calculation that has the maximum value.
- **Number of Arguments** — Two or more members or calculations.
- **Options** — Whether missing values should be set to 0 in the calculation.

**Example** — Consider a spreadsheet with East and West as columns and Jan, Feb, Mar as rows. If the East values were 100, 300, and 600 and the West values were 200, 200, 300, the Maximum Value column would be 200, 300, 600.

Minimum

- **Function Performed**: Given two or more arguments, the name of the member or existing calculation with the minimum value
- **Number of Arguments**: Two or more members or existing calculations
- **Options**: Whether missing values should be set to 0

**Example**: Consider a spreadsheet with East and West as columns and Jan, Feb, Mar as rows. If East values are 100, 300, 600 and West values are 200, 200, 300, Minimum values are East, West, West.

Minimum Value

- **Function Performed** — Given two or more arguments, Minimum Value returns the value of the member or calculation that has the minimum value.
- **Number of Arguments** — Two or more members or calculations
- **Options** — Whether missing values should be set to 0 in the calculation.

**Example** — Consider a spreadsheet with East and West as columns and Jan, Feb, Mar as rows. If the East values were 100, 300, and 600 and the West values were 200, 200, 300, the Minimum Value column would be 100, 200, 300.

Multiply

- **Function Performed** — Arithmetic multiplication.
- **Number of Arguments** — Two or more members or calculations, or one member or calculation and a constant.
- **Options** — You can specify a constant as an argument if you want to work with one rather than two members or calculations. You can also choose whether missing values should be set to 0 in the calculation.
Percent

- **Function Performed** — Percentage calculation.
- **Number of Arguments** — Two members or calculations, or one member or calculation and a constant.
- **Options** — You can specify a constant as an argument if you want to work with one rather than two members or calculations. You can also choose whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with Actual and Budget as columns and Jan, Feb, Mar as rows. If the Actual values were 100, 300, and 600 and the Budget values were 200, 200, 400, the Percentage column (Actual % Budget) would be 50, 150, 150.

Percent Difference from Average

- **Function Performed** — Performs the same actions as Difference from Average but displays each result as a percentage of average.
- **Number of Arguments** — One member or calculation.
- **Options** — Whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with Actual as a column and Colas, Root Beer, and Cream Soda as rows. If the Actual values for these products were 100, 200, and 300, the average would be 200. So the Difference from Average (%) column would be -50, 0, 50.

Percent of Difference

- **Function Performed** — Percentage difference calculation.
- **Number of Arguments** — Two members or calculations, or one member or calculation and a constant.
- **Options** — You can specify a Constant as an argument if you want to compare a member with a fixed value. You can also choose whether missing values should be set to 0 in the calculation.

Example — Consider a spreadsheet with Actual and Budget as columns and Jan, Feb, Mar as rows. If the Actual values were 100, 300, and 600 and the Budget values were 200, 200, 400, the Percentage difference column (Actual % diff Budget) would be calculated as 

\[
\frac{\text{Actual} - \text{Budget}}{\text{Budget}} \times 100
\]

and shown as -50, 50, 50.

Percent of Member

- **Function Performed** — Evaluates a dimension member argument as a percentage of another dimension member argument. The second argument is defined by the dimension member intersected on an opposite axis.
- **Number of Arguments** — Two or more members or calculations, or one member or calculation and a constant.
- **Options** — You can choose whether missing values should be set to 0 in the calculation.
- **Procedure** — Select a Percent of Member calculation from the Function list, select a dimension member argument, and select a dimension member from the opposite axis using the Opposite Member drop-down list.

**Percent of Total**
- **Function Performed** — Percentage of total.
- **Number of Arguments** — One member or calculation.
- **Options** — None.

Example — Consider a spreadsheet with Actual as a column and Jan, Feb, Mar as rows. If the Actual values were 100, 300, and 600, the Percentage of Total column would be shown as 10, 30, and 60.

**Rank Ascending and Rank Descending**
- **Function Performed**: Ranking
- **Number of Arguments**: One member or existing calculation
- **Options**: Ascending or descending (the default). If ascending, the smallest value is ranked as 1. If descending, the largest value is ranked as 1.

Example: Consider a spreadsheet with Actual as a column, Jan, Feb, Mar as rows, and Actual values of 100, 300, 600. If descending is selected, Rank values are 3, 2, 1. If ascending is selected, Rank values are 1, 2, 3.

**Subtract**
- **Function Performed** — Arithmetic subtraction.
- **Number of Arguments** — Two members or calculations, or one member or calculation and a constant.
- **Options** — You can choose whether missing values should be set to 0 in the calculation.

**Sum**
- **Function Performed** — Arithmetic addition.
- **Number of Arguments** — Two or more members or calculations, or one member or calculation and a constant.
- **Options** — Whether missing values should be set to 0 in the calculation.
Square Root

- **Function Performed** — Returns the square root of a numeric value.
- **Number of Arguments** — One member or calculation.
- **Options** — Whether missing values should be set to 0 in the calculation and included in the number of arguments.

Example — If Actual is 100, the Square Root of Actual is 10.

Trend

- **Function Performed** — Trend based on straight-line Linear Regression; that is, the slope of the 'straight line' that a Linear Regression calculation would plot between the points in the original data series.
- **Number of Arguments** — Two or more members or calculation.
- **Options** — Whether missing values should be set to 0 in the calculation.

Variance

- **Function Performed** — Arithmetic subtraction that uses Financial Intelligence account metadata to interpret Financial Management expense and liability items as negative values.
- **Number of Arguments** — Two members or calculations, or one member or calculation and a constant.
- **Options** — You can choose whether missing values should be set to 0 in the calculation.

Variance Percent

- **Function Performed** — Percentage difference calculation that uses Financial Intelligence account metadata to interpret Oracle Hyperion Financial Management expense and liability items as negative values.
- **Number of Arguments** — Two members or calculations, or one member or calculation and a constant.
- **Options** — You can specify a Constant as an argument if you want to compare a member with a fixed value. You can also choose whether missing values should be set to 0 in the calculation.

Complex Calculations

Oracle recommends dividing complex calculations into components and combining the components into a compound calculation.

Example: To set up a calculation for \((A + B) / (C \times 2)\), where A, B, and C are members, you divide the formula into steps:
● Set up Sum for A + B, and name it Step 1.
● Set up Multiply for C x 2, and name it Step 2.
● Set up Divide for Step 1 result divided by Step 2 result, and name it Step 3.
● Use Show Only Members to hide Step 1 and Step 2. If you want to switch between seeing only members, seeing only calculations, and seeing both, you can use the Hide option in your document right-click menu.

Creating Calculations

You can use a combination of members, functions and/or operators to create a formula using the Functions and Members tabs, as well as the operators buttons. You can create a formula by using members and operators, without functions, or you can combine members, functions and operators in a formula. You also can create and edit advanced expressions by manually entering and editing the formulas.

An editor field, Formula Body, allows you to manually enter and edit the formula using a syntax that resembles multidimensional expressions (MDX) for defining members. However, while the syntax definition for defining members resemble the MDX format, MDX statements are not supported in the Web Analysis calculations. A formula is created by selecting a combination of Function and Member(s). For more information, see Using the Manual Formula Syntax.

Toolbar buttons for Cut, Copy, Paste and Validate are activated when a formula is entered in the Formula Body. The Validate button checks the validity of the formula for any errors and returns an error box to confirm whether validation succeeded or an error exists. The result of the formula is shown in the Formula field and can be inserted into the report by clicking the Insert button. Existing functions can be grouped together in one expression. If you want to switch between seeing only members or only calculations, or both, you can use the Hide option in the shortcut menu on your document.

**Note:** You can select Dynamic row or column references instead of selecting members from the report. The formatting is applied regardless of the member selection. If a calculation refers to a specific column, and that column is deleted through member selection, the calculation is handled correctly. If a swap or pivot is performed, the calculation will “carry” where possible.

► To create a calculation:

1. **Right-click a dimension member header and select Analysis Tools, then Calculation.**

The Calculation Definition dialog box is displayed, containing three tabs: Functions, Members and Options.

- The **Members** tab is for selecting members and adding them to a formula (for example, [Sales] - [COGS], outside a formula function. You can select one or more members in the Select Members list, click Insert to insert to the formula Definition.
- The **Functions** tab is for inserting formula functions into the Definition area after selecting a function and members. You can add and remove members and constants to the
formula. Once a function is selected, it appears in the **Formula** area. Members (or dynamic references) can be added to the formula by clicking on each member/reference, then clicking on **Add** to add it to the **Arguments** area. The **Formula** area is updated with arguments once they are added. When the formula is complete, it can be inserted to the **Definition** area by clicking **Insert**.

- The Options tab provides **Missing Values** and **Select Positions** settings.

2 The following areas are displayed for all three tabs:

- **Name** — the name of the formula.
- **Definition** — displays the formula. It allows for manual entry and editing of the formula. The Cut, Copy, Paste, and Validate buttons become enabled.
- **Mathematical Operators** — symbols that provide types of calculations that you can perform on the elements of a formula; addition (+), subtraction (-), multiplication (*), division (/), parenthesis (( )).

3 You can create a formula by using members on the **Members** tab. Perform the following:

- In the **Select Members** area, select members.
- In **Advanced** — click to list all dimension member combinations and add them to the formula **Definition** area. When deselected, only members from one dimension are shown.
- In **Dynamic References** — select to enable the selection of a row or column reference.

4 Click **Insert** to add the formula.

5 To create a formula using functions, in the **Functions** tab, perform the following:

a. Select a calculation type from the **Function** list.

b. Replace the undefined arguments, displayed with a (?) in the **Arguments** area, with a member located in the **Select Members** area. Do this by selecting the member and clicking the right arrow button.

c. To replace an undefined argument (?) with a value, enter a value in the **Constant** text box, and click the right arrow button.

d. To replace an undefined argument from dimension member combinations, select **Advanced** to display dimension member combinations. Click to select a dimension member combinations label, and click the right arrow button to replace an undefined argument (??).

e. Select **All Members** to quickly select all available dimension members.

f. Click **Insert** to include the formula in the definition.

g. When the calculation is defined, click **Apply** and **OK**.

The following list describes the items on the **Functions** tab.

- **Formula** — displays the formula result
- **Functions** — provides pre-written formulas such as adding values, dividing values, calculating averages
- **Select Members** — provides members to be included during calculation
- **Advanced** — click to select a dimension member combination label. If the row or column context of the calculation has multiple dimensions, Advanced shows all dimension in the row or column. When deselected, only members from one dimension are shown.

- **All Members** — select to select all dimension members

- **Dynamic References** — enable to select a row or column reference.

- **Constant** — type a value to use in a function. For example, instead of `Sum("Qtr1", "Qtr2")`, you could have `Sum("Qtr2", 155)`.

- **Optional. Opposite Member** — select to evaluate a dimension member argument as a percentage of another dimension member argument. The second argument is defined by the dimension member intersected on an opposite axis
  - Select a **Percent of Member** calculation from the Function list.
  - Select a dimension member argument.
  - Select a dimension member from the opposite axis using the **Optional Opposite Member** list.

  **Note:** The Opposite Member list in the arguments frame is enabled only for the Percent of Member Calculation. This control evaluates a dimension member argument as a percentage of another dimension member argument. The second argument is defined by the dimension member intersected on an opposite axis.

6 On the Options tab, perform the following:

- **Ignore Calculations** — excludes calculated members from the equation when “All Members” is selected.

- **Optional. Missing Values** — provides option for how missing values are treated; include, exclude, or treat as a number that you specify.
  - **Include** — calculates missing values as they are stored.
  - **Exclude** — removes arguments populated by missing values from the calculation.
  - **Treat as Number** — populates the argument with the value indicated. Default is zero (0).

- **Select Position** — provides options for specifying the location of the calculated row or column.
  - **Front/Top**
  - **Back/Bottom**
  - **Insert Before**
  - **Insert After**
  - **Insertion Point** — If you selected Insert Before or Insert After, select an insertion point from the corresponding list. The calculated row or column is inserted before or after the specified dimension header.

- **Ignore Calculations** — selected to exclude calculated members from the equation when “All Members” is selected.
When the calculation is defined, click Apply and OK.

Using the Manual Formula Syntax

If a member name contains unsupported characters or symbols, it should be enclosed in brackets – [ ]; If the name does not contain such symbols, it can be used as is. Some guidelines:

1. [New York] + West + East — correct
3. Old style syntax (member names are separated by “,”). For advanced members, can be used if member names contain “good” symbols only. For example:
   Qtr1:West + Qtr2:East — correct
   Qtr3:New York — incorrect
4. For new MDX style syntax, a list of comma – separated member names is included between “(‘and’)”. Member names must be included within [ ] according to the same rules as for simple members. For example:
   ([New York], West) — correct
   (New York, West) — incorrect
5. Simple and advanced members must not be mixed in one formula body. For example:
   ([New York], West) + East — incorrect
   Qtr1:West + South — incorrect
6. All members’ specification in the script is defined by keyword @selectAllMembers. For example:
   Average(@selectAllMembers) + 1234 + [East]
7. All members’ specification can be used in the script several times. For example:
   Sum(@selectAllMembers) – Sum(@selectAllMembers) — correct, always zero
8. Dynamic references are specified by the following way; for rows they are in form @row<ROWNUMBER>, for columns they are @col<COLUMNNUMBER>. For example:
   @col + @col5 – @col16/100@row2 – @row3
9. In one expression, row and column dynamic references should not be mixed. For example:
   @col + @row1 — incorrect. An error message occurs.
10. You can mix members and dynamics references in one expression, with the following restriction: If the axis (row or column) contains several dimensions, an advanced members’ specifications must be used. For example:
    @row1 + [Qtr1] — correct only if row axis contains one dimension – Year
    @col2 + Qtr1:West — correct if column contains Year and Market.
11. Opposite members are used only for one function – Percent_of_Member. An @ character must precede the opposite member. For example:
    2* Percent_of_Member (Qtr1, @Colas) — correct

Using Web Analysis
Modifying Calculations

To modify a calculation:

1. Right-click a dimension member header and select Analysis Tools, then, Analysis Tools Manager.
   The Analysis Tools Manager is displayed.

2. Click a calculation definition.

3. Click Edit.
   The Calculation Definition dialog box displays the arguments for the selected calculation definition.

4. Optional: To change the calculation definition name, enter a name in Name.

5. Optional: To move the calculation position, select another option.

6. Optional: If you selected Insert Before or Insert After, select an insertion point from the corresponding list.
   The calculated row or column is inserted before or after the specified dimension header.

7. Optional: To change the calculation type, select a calculation type from Function.
   Changing the calculation type requires that the user redefine all arguments. For instructions, see “Creating Calculations” on page 109.

8. Optional: To change the arguments for the calculation, perform one:
   - Click an argument, click a dimension member label, and click the arrow button.
   - Click an argument, enter a value in the Constant text box, and click the arrow button.
   - Select Advanced to display dimension member combinations. Click an argument, click a dimension member combination label, and click the arrow button.
     The calculation definition is displayed in the Formula group box.

9. When the calculation is redefined, click Apply and OK.

10. Click Close.

Analytic Services Attribute Calculations

You can leverage server-based Analytic Services attribute calculations in the client. Because server-based calculations are performed before OLAP query results are sent to clients, network traffic and the result set are minimized.

To use attribute calculations, you use Data Layout to select the attribute calculations dimensions to participate in the query. Then you use Dimension Browser to select the server-based calculations to be returned by the query result set.
Note: You can reproduce many attribute calculations on the client, but you are responsible for defining the calculations, and the client is responsible for processing the result set.

Reasons to use attributes in calculations:
- To select, aggregate, and report on data that shares attributes
- To select attributes by data type: text, numeric, Boolean, and data type
- To group numeric data types into statistical ranges
- To use sum, count, min, max, and average functions on the attribute calculations dimension automatically generated by Analytic Services
- To use numerical attribute values from calculation scripts and member formulas in calculations
- To create crosstabs of attribute data for a dimension and analyze the dimension in terms of each attribute

Print as PDF from EPM Workspace

Web Analysis documents can be printed to Adobe Portable Document Format (PDF) from the EPM Workspace. There are two printing options:
- Print Screen — Prints the content area. A print view and Microsoft Print dialog is displayed.
- Print Selected Object — Prints the specified OLAP pages of the current data object (For Example, Spreadsheet, Chart or Pinboard). A Print via PDF dialog presents print options (orientation, scale, and an option to allow print settings to be saved with document).

Print Screen prints the current display quickly and easily. Because documents can contain multiple data objects, Print Screen does not specify OLAP pages. If you want to include OLAP pages or object-specific document summaries, you should select Print Selected Object.

To print a report as PDF, perform one:

1. Open a report and Select File , then Print via PDF , then Screen to print the screen, or, Select File , then Print via PDF, then Selected Object to print the selected reporting object in the report. The Print via PDF dialog is displayed. See "Print via PDF" on page 115.

2. Right click a data object and select Print via PDF, then Selected Object. The Print via PDF dialog is displayed. See "Print via PDF" on page 115.

Note: If Print via PDF is not available, the System Administrator has configured Web Analysis to only print to HTML in the EPM Workspace and Print via PDF has been disabled.
Print via PDF

The Print via PDF dialog is used to specify print options when you select to print Selected Object.

- **Orientation** — Specifies how a document is positioned on the page
  - Portrait: Prints across the width of the page (letter style).
  - Landscape: Prints across the length of the page (spreadsheet style).
- **Scale** — Fit to page printing. Enables you to determine how document content is broken down into print job pages.
- **Allow print setting to be saved with document** — Automatically inserts a print summary into the printer output when checked.

Database Connections

Database connections are portable files that define terms, conditions, and methods for connecting to data sources. You must use Web Analysis Studio, not Web Analysis, to create and modify database connections.

Documents are dependent on database connection files to query data sources. A document can use multiple database connections to connect to one or more data sources.

To access data sources, you may be prompted to provide logon credentials.

Information provided in the view pane Information tab:

- **Database**—displays the database connection name for the current data object
- **Database User Name**—displays the user name by which access to the database connection is granted

Data sources and database connections supported by Web Analysis documents:

- **OLAP data sources**
  - Analytic Services 6.5.6, 7.0.1, 7.1, and 7.1.2
  - IBM DB2 OLAP Server 7.1 Service Pack 11, 8.1 Service Pack 3, and 8.2
  - SAP BW 3.0, 3.1, and 3.5
- **Hyperion data sources**
  - Financial Management 3.4, 3.5, 3.5.1, and 4.0
  - Planning 3.3, 3.5 with Analytic Services 3.5.1, and 4.0
- **Relational database connections:**
  - IBM DB2
  - Microsoft SQL Server
  - Oracle
  - Teradata
System RDBMS requirements vary. See the Oracle Enterprise Performance Management System Installation and Configuration Guide for descriptions of relational system requirements.

**Database Connection Files**

Database connections are stored as repository files and adhere to most file management conventions. You see only database connections that you own or to which you are granted permissions. Various kinds of permission are needed to read, write, edit, and change database connection file properties.

**Database Connection Access and Document Permissions**

Documents or presentations distributed to users may require database connections that the users cannot access. Document access is independent of database connection access.

Database connection permissions that deny access may prevent access to only one connection. Users can use other connections to the primary data source or to alternate data sources. Users can leverage document definitions independently of database connections.

**User and Group Permissions**

Users can access database connections assigned to them or to groups to which they belong.

When documents are assigned to groups, the database connections that the document uses must also be assigned to the groups. Otherwise, group members can access the document, but not its data values (unless they are granted individual user access).

To mitigate the risk of conflicting permissions, store documents and their database connections in the same folders. Whenever possible, distribute documents and database connections to groups. It is easier to set permissions for all files in a folder and all users in a group than to manage permissions for individual files and users.

**Integrating OLAP and Relational Data**

Web Analysis Studio users can construct seamless liaisons between OLAP data and relational data sources. Navigation from OLAP to relational data is called *relational drill-through*.

After relational drill-through is configured, users can navigate from the dimension bottom (level 0) of the OLAP database and drill down to relational data.

Relational drill-through is a client-based integration solution comparable to the server-based Analytic Integration Services drill-through.

The Relational Drill-Through dialog box is a graphical user interface for creating SQL relational database queries. Users can use complex SQL syntax to specify table joins and to select and order by clauses.
Note: Relational drill-through supports an array of JDBC relational data sources but does not support queries by levels, generations, or previously selected members.

Relational drill-through definitions are saved as properties of database connection files.

### Analytic Services Database Connections

Analytic Services, the analytic solution that integrates data from multiple sources and meets the needs of users across an enterprise, enables the quick and easy implementation of solutions, adds value to previously inaccessible data, and transforms data into actionable information.

Analytic Services integrates with existing business intelligence infrastructure, requiring a minimum of IT overhead and enabling organizations to realize maximum return on their IT investments.

Various Analytic Services features are extended through the Web Analysis graphical user interface:

#### Restrict Data

Restrict Data narrows the return set by requiring data values to be relevant to specific rules and operands. Data can be filtered by two-column comparison or by single-column fixed limits.

#### Retrieve Only Top/Bottom

Retrieve Only Top/Bottom Analysis leverages Analytic Services sorting and ranking to control the size and order of OLAP query result sets, thus protecting the network server from transmitting and the client from processing large result sets.

#### Edit Data

If you have permission, you can edit data values and write edits back to Analytic Services databases. After edits are applied, users can recalculate the databases and measure the impact of changed values.

#### Suppress Missing Rows, Zeros, and Shared Members

Web Analysis documents leverage Analytic Services to suppress missing rows, zeroes, and shared members from the query result set, thus preventing return of irrelevant information, reducing network traffic, and increasing query speed.
Label Mode and Alias Tables

Label mode enables you to select whether members are listed by ID number, description, or both. Label mode options are database-specific and can be set for database connections, specific documents, and specific dimensions.

Label mode indicates whether descriptions or ID numbers are used, and Analytic Services alias table definitions provide the displayed values.

Analytic Services Drill Settings

Web Analysis documents use Analytic Services features to provide customized drilling, dependent upon three factors:

- The nature of the hierarchical navigation
- Whether current members are replaced or augmented
- Whether drilled members are replaced or augmented

Linked Reporting Objects (LROs)

Analytic Services LROs, which include the following types, enable users to annotate data values by associating external media with cells.

- Text documents
- File attachments
- URLs

Relational Drill-through

Web Analysis documents enable you to drill through to related relational data from the lowest level of the Analytic Services outline by defining links on Analytic Services database connections. Users can pass pages, filters, and row limits to focus and control the relational query result set.

Analytic Integration Services Drill-through

Analytic Integration Services enables you to organize, format, and present relational data as OLAP cubes in Analytic Services. Web Analysis documents enable you to access Analytic Integration Services data through Analytic Services linked reporting objects by drilling on cells marked for Analytic Integration Services drill-through.
Analytic Services Advanced Member Selection

In dimensions with large member sets, users can define selections with the Dimension Browser right-click menu. Right-clicking member names enables selection by familial relationship and database-specific options.

Attribute Dimensions and Attribute Calculations

In addition to member names, locations, and relationships, Analytic Services can store characteristics about members. Analytic Services does not store attribute dimensions as part of OLAP cubes, but dynamically calculates them upon request. Attribute dimensions are displayed in dimension hierarchies and used in calculations, as standard dimensions are displayed and used.

Financial Management

Financial Management is a centralized, scalable, financial management and reporting solution. With Financial Management, users can unify their financial information (actuals, budgets, forecasts, statistics) in one Web-based application. Financial Management contains packaged features to support tasks and practices:

- Compliance with global reporting standards, currency management, automation of inter-company activities, and production of auditable results
- Links between legal and management reporting and operating plans to achieve enterprise-wide consistency and visibility
- Multidimensional, line-of-business analysis
- Improved collaboration through the Web
- Key external industry metrics that provide one central point of financial intelligence

Designed for large-scale, centralized Web deployment, Financial Management acts as a shared financial resource for thousands of users across the enterprise, enabling them to collaborate and cooperate in the day-to-day business management. In one application, users can produce auditable documents and forecasts for multiple consumers, such as regulatory bodies, financial analysts, stakeholders, and business partners.

Financial Management Features Available in Web Analysis Documents

Financial Management features extended to Web Analysis documents:

- Organization by period
- Advanced member selection
- Cell text, related content
- Line-item detail, related content
- User-defined fields
- Entity currency display

**Related Content**

The Related Content dialog box links to previously configured, related content and applications. When LRO indicates are enabled, blue triangles are displayed in spreadsheet cells that contain links to related content. Right-clicking linked cells and selecting Related Content displays the Related Content dialog box.

Cell text and line-item detail are accessed as related content.

**Cell Text**

You can launch cell text notes, read-only text strings stored in the Financial Management data source.

**Line-Item Detail**

You can launch line-item-detail spreadsheets, read-only relational spreadsheets created from Financial Management data sources.

**Related Content Changes**

Changes to cell text and line-item detail items are not displayed in Web Analysis documents until Financial Management is recalculated and changes registered.

**Organization by Period**

Financial Management Organization by Period functionality enables an organization’s latest consolidation structure to coexist with past structures in one application.

Thus, dimension hierarchies can be consolidated differently during different periods. Organizational structures can change for many reasons, including acquisitions, disposals, mergers, and reorganizations.

You can access Org by Period functionality when Org by Period is configured and set on the Financial Management server.

When querying Financial Management database connections configured with Org by Period, the Data Layout Options button displays an Org by Period item. The Org by Period dialog box offers an interface for enabling Org by Period and selecting three members.
Financial Management Advanced Member Selection

In dimensions with large member sets, users can define selections with the Dimension Browser right-click menu. Right-clicking member names enables selection by familial relationship and database-specific options.

Financial Management offers a smaller set of advanced member selection methods than does Analytic Services.

<table>
<thead>
<tr>
<th>Right-Click Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Members</td>
<td>Selects all members—a Financial Management member selection method</td>
</tr>
<tr>
<td>Select Dim Top</td>
<td>Selects the highest ancestor</td>
</tr>
<tr>
<td>Select Dim Bottom</td>
<td>Selects the lowest descendants</td>
</tr>
<tr>
<td>Also Select Descendants</td>
<td>Selects the currently member and its descendants</td>
</tr>
<tr>
<td>Member List</td>
<td>Displays the Member List dialog box, used to select lists of members—a Financial Management member selection method</td>
</tr>
<tr>
<td>User Defined Fields 1, 2, and 3</td>
<td>Displays the User Defined Field dialog box, used to select members with specific user-defined field values</td>
</tr>
<tr>
<td>Search</td>
<td>Displays the Search dialog box, used to locate members</td>
</tr>
</tbody>
</table>

User-Defined Fields

User-defined fields are typically defined only for Account, Scenario, Entity, and custom dimensions and are limited to 20 characters.

Users can compose compound selection statements by using multiple values for one field (for example, User Defined Field 1 = West AND User Defined Field 1 = East).

To define a user-defined field, users cannot use an empty string as a value.

Display Entity Currency

Financial Management stores currency metrics in the Value dimension and as Entity dimension attributes, thus enabling users to query data sources using selected or default currency values.
When using Financial Management data sources with defined Entity dimension currency information, you can enable the Display Entity Currency option, to append Entity members with their default currency values. Before querying, you use Data Layout options; after querying, you use the Data Display right-click menu; for all subsequently created documents, you use OLAP Server user preferences.

**Note:** You can use Web Analysis Studio only to review and set this feature, but settings are observed by the HTML Web client.

### Financial Management Conventions

Financial Management outlines have 12 dimensions, eight predefined (Period, View, Entity, Account, ICP, Scenario, Value, and Year) and four custom.

### No Drill To Top

When you query Financial Management, you cannot drill to top as you can when querying Analytic Services. Financial Management and Analytic Services track parent-child relationships differently. The Financial Management hierarchies enable multiple consolidations, thus enabling multiple parents for one child.

### No Edit Data

Users cannot write back data to Financial Management data sources, as they can to Analytic Services data sources.

### Adding and Deleting Members

Users must click the Reload button to display added or deleted members.

### New Databases

Current sessions cannot interact with Financial Management data sources added during the session. Only data sources operating when a session is established can communicate with Web Analysis documents. To connect to new Financial Management databases, log off and then log on again.

### Deleted Users

After you establish a Financial Management session, connection is valid until you log off, even if your user name is deleted server-side. Access is not revoked until the current session ends.
SAP BW

You can access SAP BW data sources in Web Analysis documents. Thus, you can extend your SAP BW investment by using advanced analytics and dashboards. Using the custom document freeform grid component, you can present OLAP, relational, and manually entered data on one data object and leverage all data sources in integrated dynamic calculations. Visually compelling SAP BW documents typically surpass the presentation, reporting, and distribution requirements of information consumers.

SAP BW Prerequisites

After installation, you must download the SAP BW JCo driver 2.1.4 or 2.1.5 from an SAP Web site.

Two Microsoft DLL files, MSvcr71.dll and MSvcp71.dll, are deployed to a common directory during installation. The files are used by Production Reporting, Financial Reporting, and Web Analysis.

You must locate the SAP BW JCo Driver in the DLL files directory.

SAP BW Conventions

SAP data sources differ from other data sources. For example, level 0 is the highest ancestor in SAP and the lowest descendant in Analytic Services. SAP member properties are analogous to Analytic Services attribute dimensions.

SAP BW Advanced Member Selection

In dimensions with large member sets, users can define selections with the Dimension Browser right-click menu. Right-clicking member names enables selection by familial relationship and database-specific options.

SAP BW and Analytic Services offer different sets of advanced member selection methods.

<table>
<thead>
<tr>
<th>Right-Click Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Members</td>
<td>Selects all members</td>
</tr>
<tr>
<td>Select Dim Top</td>
<td>Selects the highest ancestor, or, in multiple hierarchies, all top level ancestors</td>
</tr>
<tr>
<td>Select Dim Bottom</td>
<td>Selects all lowest level descendants</td>
</tr>
<tr>
<td>Also Select Descendants</td>
<td>Selects the current member and its descendants</td>
</tr>
<tr>
<td>Select Parent</td>
<td>Selects the parent of the current member</td>
</tr>
<tr>
<td>Also Select Ancestors</td>
<td>Selects the current member and its ancestors</td>
</tr>
<tr>
<td>Right-Click Menu Command</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Also Select Children</td>
<td>Selects the current member and its children</td>
</tr>
<tr>
<td>Also Select Siblings</td>
<td>Selects the current member and members on the same level and of the same parent</td>
</tr>
<tr>
<td>Also Select Level</td>
<td>Selects the current member and all members on the same level and of the same dimension</td>
</tr>
<tr>
<td>Select At Level</td>
<td>Selects all members at a level specified by name or number</td>
</tr>
<tr>
<td>Also Select Previous</td>
<td>Selects a variable number of previous members from the level of the current member; uses MDX LAG to indicate the number of previous members to return</td>
</tr>
<tr>
<td>Also Select Next</td>
<td>Selects a variable number of next members from the level of the current member; uses MDX LEAD to indicate the number of subsequent members to return</td>
</tr>
<tr>
<td>Date Time Series</td>
<td>Selects time members based on time definition criteria. SAP BW does not return aggregated values for DTS selections and returns only members that satisfy the criteria.</td>
</tr>
<tr>
<td>Select Top/Bottom</td>
<td>Returns a variable number of members, based on their rank. You can select top or bottom values, but not both. Rank can be calculated by percentage, sum, or count. Sum uses a threshold value to select members up to and including the value that limits the threshold. Result sets may differ from Dimension Browser preview, due to custom filter selections on the query.</td>
</tr>
<tr>
<td>Filter on Member Properties</td>
<td>Displays the Member Properties dialog box, used to select member subsets by member SAP BW property values</td>
</tr>
<tr>
<td>Find in Tree</td>
<td>Locates members in large dimensions; expands the hierarchy but does not add found members to the Selection list</td>
</tr>
</tbody>
</table>

**Relational Access**

Web Analysis documents, using one of five methods, can access OLAP, Hyperion, and supported relational databases.

**Custom Document SQL Spreadsheet**

SQL spreadsheet objects represent relational data sources as spreadsheets, using standard SQL syntax queries.

**Custom Document Freeform Grid**

Freeform grids enable users to combine data values from multiple data sources in one data object and thus leverage custom document database connections.
Relational Drill-through

You can construct seamless liaisons between OLAP data and relational data sources. Navigation from OLAP to relational data is typically called *relational drill-through*. Users can navigate from the dimension bottom (level 0) of OLAP databases and drill down to relational data.

Web Analysis documents store relational drill-through definitions, which can be defined with Select statements and clauses, as database connection properties of Analytic Services database connections. Query result sets are presented as SQL spreadsheets.

See “Integrating OLAP and Relational Data” on page 116.

Relational Database Connections

Web Analysis Studio provides users with an easy-to-use graphical interface for defining relational database connections. You are prompted to specify relational database type and login credentials, select a relational table, and define database-connection properties.

Web Analysis documents relational data sources, aggregates result sets, and expresses data as OLAP cubes.

Analytic Integration Services Drill-through

Analytic Integration Services Drill-through is a server-based form of relational drill-through. Like conventional relational drill-through, you can construct seamless connections between OLAP and relational data. Unlike conventional relational drill-through, you can drill to relational data sources from all Web Analysis document intersections.

Analytic Services administrators must establish Analytic Integration Services drill-through reports. Relational queries are stored as intersection-specific metadata and flagged with LRO indicators. When users double-click flagged cells, OLAP documents navigate to the specified relational report.

Repository

Repository access is the only mandatory form of relational database access. The repository centrally stores system data, user names, user preferences, and document definitions in relational database tables. Without repository access, you cannot save information. Administrators establish repository access during installation.

Controlling Query Result Set Size

Query governors vary for relational access methods.

Custom document SQL spreadsheets and relational drill-through methods enable users to declare query governors as they create SQL queries or relational drill-through definitions.
When you drill from OLAP to relational data, passing only the drilled OLAP member to the relational data source may result in a large query result set. To focus and diminish query result sets, users can pass page and filter dimensions specified in the OLAP documents.

Other relational access methods rely on the Analysis.properties file to limit query result sets.

## Custom Web Analysis Documents

Web Analysis Studio provides twenty-one coding-free components, each of which can be customized and added to custom documents multiple times. Combination options provide almost unlimited creative opportunities for custom-document designers.

**Note:** Custom documents cannot be created in Web Analysis Oracle Hyperion Enterprise Performance Management Workspace.

## Containers

Panel and Split Panel objects enable you to control space and layers on custom documents. It is best to use container panels to design documents and to orient components inside panels. Components placed with absolute alignment in the main document panel maintain position even as other components fluctuate. Thus, components may overlap and shift.

You can size, align, and establish properties for panels. Properties control appearance and behavior.

## Content Panels

Panels that provide specialized content:

- **Label** — Static or dynamic text for use as titles, labels, or captions
- **Text Area** — Dynamic text used for annotations
- **Image** — A graphic used to include graphic backgrounds, pictures, illustrations, and graphic controls
- **HTML Browser** — Static HTML

The panels function without additional coding. Label objects support the dynamic text labels used in printing headers, footers, and SQL spreadsheets.

## Data Objects

Data objects representing display types (on the component toolbar):

- **Chart** — query result sets as charts
- **Spreadsheet** — query result sets as spreadsheets
• **Freeform Grid**— content from freeform grids
• **Pinboard**— query result sets as pinboards

SQL spreadsheet data objects are also available, at the end of the component toolbar.

**Subscription Controls**

You can add controls to documents to enable users to navigate dimensional hierarchies, browse the documents, or execute commands.

• **Combo Box Subscription**— View a list of members.
• **Radio Button Group Subscription**— Select a member option.
• **Checkbox Group Subscription**— Select multiple members.
• **Tab Group Subscription**— Select a member tab.
• **Multi-level Combo Box Subscription**— Select from interdependent lists (members changing as selections change).
• **Slider Subscription**— Select a member, based on its position on a slider bar.
• **Selection Button Subscription**— Apply member selections to data objects that use the same data source.
• **Alias Controller**— Toggle data objects between alias table labels.
• **Services Button**— Execute preset commands and create hot spots.

Subscription buttons can control data objects that share a database connection query.

**SQL Spreadsheet and SQL Subscription**

Components that present and control SQL query result sets.

• **SQL Spreadsheet**— a data object that displays a SQL query to a relational data source
• **SQL Subscription**— a subscription button designed for SQL spreadsheets

**Linking Components by Query**

Specifications required for document creation:

• Data source—provides data values
• Data object—displays data values
• Query—Retrieves data values from data sources and returns them to data objects

Properties that customize the specifications:

• Database connection properties indicate data-source type, logon credentials, database applications, dimension formatting, and drill-through properties.
Data objects can be set to display types that feature specific options.

Queries can be explicit, requesting information on members, or dynamic, requesting information about all members that satisfy a set of criteria.

In Design Document mode, query definitions are referred to as data sources.

### Common Data Sources

Design document components using the same data source are coordinated (follow the same navigation lines).

### Unlinking Components

If you do not want coordinated document components, you can assign multiple data sources to a data object. Identical data sources with different names are treated as individual sources.

### Linking Dimensions

You can use Custom settings to link dimensions within data objects on a document.

Dimension linking enables data objects that share dimensions but use different data sources to remain coordinated. Links are unidirectional. Navigation on a data object triggers coordinated navigation on the data objects linked to it. Navigation on the other data objects triggers coordinated navigation only the objects have defined links.

### Edit Data Mode

If you have permission, you can edit cell values and write edits back to Analytic Services. You can initiate Edit Data mode only from the spreadsheet display type.

To initiate Edit Data mode in a Web Analysis document, right-click the data object, and select Edit Data.

Edit Data buttons are added to the content area. Editable cells in Analytic Services are converted to data-entry cells.

<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculation list</td>
<td>Specifies the calculation script to use when the database is recalculated from the HTML Web client</td>
</tr>
<tr>
<td>Run</td>
<td>Prompts the database server to recalculate the database</td>
</tr>
<tr>
<td>Exit</td>
<td>Closes Edit Data mode</td>
</tr>
</tbody>
</table>

Table 35  HTML Web Client Edit Data Controls
<table>
<thead>
<tr>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Data</td>
<td>Applies edits to the database</td>
</tr>
</tbody>
</table>

## Editing Data Values

To edit data values:

1. Right-click the data object, and select **Edit Data**.
2. To recalculate the database, from **Calculation**, select a calculation script, and click Run.
3. Click a cell to edit its data value.
4. Enter a data value, and click the column or row heading.
5. Click **Send Data**.

   Only authorized users can successfully write changes to the database. The Confirmation dialog box is displayed if write-back is successful.
6. **Optional**: Perform Step 2 to recalculate the data.
7. Click **Exit**.

   **Note**: On long spreadsheets, you may need to scroll down and to the right to locate the Send Data and Exit buttons, on long spreadsheets.

## Copying, Cutting, and Pasting To and From Excel

While in Edit Data mode, you can cut, copy, and paste ranges of cells from Excel spreadsheets into Web Analysis spreadsheets. The edits can then be posted to Analytic Services. You can also cut, copy, and paste between values.

Keyboard shortcuts:

- To copy, select a range of cells, and press Ctrl + C.
- To cut, select a range of cells, and press Ctrl + X.
- To paste, select a range of cells, and press Ctrl + V.

## Tips for Edit Data Mode

- You cannot edit calculated members or attribute dimensions, because their values do not reside in the database.
- Dimensions composed of implied shares (or user-defined hierarchies) do not aggregate as conventional dimension hierarchies do. Therefore, implied shares may overwrite data edits made to parents of implied shares as the model is pivoted.
Example: Actual and Budget are implied shares of the parent Scenario. Scenario, however, is a
categorical label, not an aggregation of Actual and Budget measures.
Glossary

See bang character.

See missing data.

A set of operations that a user can perform on a resource.

The process by which accounts accept input data in the consolidated file. Blocked accounts do not receive their value through the additive consolidation process.

Accounts which have their values set to zero in the consolidated file during consolidation.

A property that determines how an account’s value flows over time and its sign behavior. Account type options can include expense, income, asset, liability, and equity.

A visual, hierarchical representation of the responsibility, reporting, and dependency structure of the accountability teams (also known as critical business areas) in an organization.

A service whose Run Type is set to Start rather than to Hold.

A system in which all the available members can service requests, and no member is idle. An active-active system generally provides more scalability options than an active-passive system. Contrast with active-passive high availability system.

A system with active members, which are always servicing requests, and passive members that are activated only when an active member fails. Contrast with active-active high availability system.

Defines user access to applications and the types of activities they can perform on applications, independent of the data that will be operated on.

An online analytical query that an end user creates dynamically.

Software that enables a program to integrate with data and metadata from target and source systems.

Interactive Reporting Web Client level of permission.

See journal entry.

The integration of a relational database with an Essbase multidimensional database so that all data remains in the relational database and is mapped to summary-level data in the Essbase database.

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.

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.

A type of function, such as sum or calculation of an average, that summarizes or performs analysis on data.

A limit placed on an aggregated request line item or aggregated metatopic item.

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.

taggregation script  In aggregate storage databases only, a file
that defines a selection of aggregate views to be built into an
aggregation.

alias table  A table that contains alternate names for
members.

alternate hierarchy  A hierarchy of shared members. An
alternate hierarchy is based upon an existing hierarchy in a
database outline, but has alternate levels in the dimension.
An alternate hierarchy allows the same data to be seen from
different points of view.

ancestor  A branch member that has members below it. For
example, the members Qtr2 and 2006 are ancestors of the
member April.

appender  A Log4j term for destination.

application  1) A software program designed to run a specific
task or group of tasks such as a spreadsheet program or
database management system; 2) A related set of dimensions
and dimension members that are used to meet a specific set
of analytical requirements, reporting requirements, or both.

application administrator  A person responsible for setting up,
configuring, maintaining, and controlling an application.
Has all application privileges and data access permissions.

application currency  The default reporting currency for the
application.

Application Migration Utility  A command-line utility for
migrating applications and artifacts.

application server cluster  A loosely joined group of
application servers running simultaneously, working
together for reliability and scalability, and appearing to
users as one application server instance. See also vertical
application cluster and horizontal application cluster.

area  A predefined set of members and values that makes up
a partition.

arithmetic data load  A data load that performs operations on
values in the database, such as adding 10 to each value.

artifact  An individual application or repository item; for
example, scripts, forms, rules files, Interactive Reporting
documents, and financial reports. Also known as an object.

assemblies  Installation files for EPM System products or
components.

asset account  An account type that stores values that
represent a company's assets.

assignment  The association of a source and destination in
the allocation model that controls the direction of allocated
costs or revenue flow.

asymmetric topology  An Oracle Fusion Middleware Disaster
Recovery configuration that is different across tiers on the
production site and standby site. For example, an
asymmetric topology can include a standby site with fewer
hosts and instances than the production site.

attribute  A characteristic of a dimension member. For
example, Employee dimension members may have
attributes of Name, Age, or Address. Product dimension
members can have several attributes, such as a size and
flavor.

attribute association  A relationship in a database outline
whereby a member in an attribute dimension describes a
characteristic of a member of its base dimension. For
example, if product 100-10 has a grape flavor, the product
100-10 has the Flavor attribute association of grape. Thus,
the 100-10 member of the Product dimension is associated
with the Grape member of the Flavor attribute dimension.

Attribute Calculations dimension  A system-defined dimension
that performs these calculation operations on groups of
members: Sum, Count, Avg, Min, and Max. This dimension
is calculated dynamically and is not visible in the database
outline. For example, using the Avg member, you can
calculate the average sales value for Red products in New
York in January.

attribute dimension  A type of dimension that enables analysis
based on the attributes or qualities of dimension members.

attribute reporting  A reporting process based on the attributes
of the base dimension members. See also base dimension.
attribute type A text, numeric, Boolean, date, or linked-attribute type that enables different functions for grouping, selecting, or calculating data. For example, because the Ounces attribute dimension has the type numeric, the number of ounces specified as the attribute of each product can be used to calculate the profit per ounce for that product.

authentication Verification of identity as a security measure. Authentication is typically based on a user name and password. Passwords and digital signatures are forms of authentication.

authentication service A core service that manages one authentication system.

auto-reversing journal A journal for entering adjustments that you want to reverse in the next period.

automated stage A stage that does not require human intervention; for example, a data load.

axis 1) A straight line that passes through a graphic used for measurement and categorization; 2) A report aspect used to arrange and relate multidimensional data, such as filters, pages, rows, and columns. For example, for a data query in Simple Basic, an axis can define columns for values for Qtr1, Qtr2, Qtr3, and Qtr4. Row data would be retrieved with totals in the following hierarchy: Market, Product.

backup A duplicate copy of an application instance.

balance account An account type that stores unsigned values that relate to a particular time.

balanced journal A journal in which the total debits equal the total credits.

bang character (!) A character that terminates a series of report commands and requests information from the database. A report script must be terminated with a bang character; several bang characters can be used within a report script.

base currency The currency in which daily business transactions are performed.

base dimension A standard dimension that is associated with one or more attribute dimensions. For example, assuming products have flavors, the Product dimension is the base dimension for the Flavors attribute dimension.

base entity An entity at the bottom of the organization structure that does not own other entities.

batch calculation Any calculation on a database that is done in batch; for example, a calculation script or a full database calculation. Dynamic calculations are not considered to be batch calculations.

batch file An operating system file that can call multiple ESSCMD scripts and run multiple sessions of ESSCMD. On Windows-based systems, batch files have BAT file extensions. On UNIX, batch files are written as a shell script.

Batch Loader An FDM component that enables the processing of multiple files.

batch POV A collection of all dimensions on the user POV of every report and book in the batch. While scheduling the batch, you can set the members selected on the batch POV.

batch processing mode A method of using ESSCMD to write a batch or script file that can be used to automate routine server maintenance and diagnostic tasks. ESSCMD script files can execute multiple commands and can be run from the operating system command line or from within operating system batch files. Batch files can be used to call multiple ESSCMD scripts or run multiple instances of ESSCMD.

block The primary storage unit which is a multidimensional array representing the cells of all dense dimensions.

block storage database The Essbase database storage model categorizing and storing data based on the sparsity of data values defined in sparse dimensions. Data values are stored in blocks, which exist only for sparse dimension members for which there are values.

Blocked Account An account that you do not want calculated in the consolidated file because you want to enter it manually.

book 1) In Financial Reporting, a container that holds a group of similar documents. Books may specify dimension sections or dimension changes; 2) In Data Relationship Management, a collection of exports that can be run together as a group. Export results can be combined together or output separately.

book POV The dimension members for which a book is run.
**bookmark** A link to a reporting document or a Web site, displayed on a personal page of a user. The types of bookmarks are My Bookmarks and image bookmarks.

**bounding rectangle** The required perimeter that encapsulates the Interactive Reporting document content when embedding Interactive Reporting document sections in a personal page, specified in pixels for height and width or row per page.

**broadcast message** A simple text message sent by an administrator to a user who is logged on to a Planning application. The message details information such as system availability, notification of application refresh, or application backups.

**build method** A method used to modify database outlines. Choice of a build method is based on the format of data in data source files.

**business process** A set of activities that collectively accomplish a business objective.

**business rules** Logical expressions or formulas that are created within an application to produce a desired set of resulting values.

**cache** A buffer in memory that holds data temporarily.

**calc script** A set of commands that define how a database is consolidated or aggregated. A calculation script may also contain commands that specify allocation and other calculation rules separate from the consolidation process.

**Calculated Accounts** Accounts with formulas that you cannot alter. These formulas are fixed to maintain the accounting integrity of the model that you are building. For example, the formula for Net Income, a Calculated Account, is modeled into Strategic Finance and cannot be changed in historical or forecast periods.

**calculated member in MaxL DML** A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

**Calculation Manager** A module of Enterprise Performance Management Architecture (EPMA) that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment.

**calculation status** A consolidation status that indicates that some values or formula calculations have changed. You must reconsolidate to get the correct values for the affected entity.

**calendar** User-defined time periods and their relationship to each other. Q1, Q2, Q3, and Q4 comprise a calendar or fiscal year.

**cascade** The process of creating multiple reports for a subset of member values.

**Catalog pane** An area that displays a list of elements available to the active section. If Query is the active section, a list of database tables is displayed. If Pivot is the active section, a list of results columns is displayed. If Dashboard is the active section, a list of embeddable sections, graphic tools, and control tools are displayed.

**categories** Groupings by which data is organized. For example, Month.

**cause and effect map** A map that depicts how the elements that form your corporate strategy relate and how they work together to meet your organization’s strategic goals. A Cause and Effect map tab is automatically created for each Strategy map.

**CDF** See custom-defined function.

**CDM** See custom-defined macro.

**cell** 1) The data value at the intersection of dimensions in a multidimensional database; the intersection of a row and a column in a worksheet; 2) A logical group of nodes belonging to one administrative domain.

**cell note** A text annotation for a cell in an Essbase database. Cell notes are a type of LRO.

**CHANGED status** Consolidation status that indicates data for an entity has changed.

**chart template** A template that defines the metrics to display in Workspace charts.

**child** A member with a parent above it in the database outline.
**choice list** A list of members that a report designer can specify for each dimension when defining the report’s point of view. A user who wants to change the point of view for a dimension that uses a choice list can select only the members specified in that defined member list or those members that meet the criteria defined in the function for the dynamic list.

**clean block** A data block in which the database is fully calculated, if a calculation script calculates all dimensions at once, or if the SET CLEARUPDATESTATUS command is used in a calculation script.

**cluster** An array of servers or databases that behave as a single resource which share task loads and provide failover support; eliminates one server or database as a single point of failure in a system.

**cluster interconnect** A private link used by a hardware cluster for heartbeat information, to detect node failure.

**cluster services** Software that manages cluster member operations as a system. With cluster services, you can define a set of resources and services to monitor through a heartbeat mechanism between cluster members and to move these resources and services to a different cluster member as efficiently and transparently as possible.

**clustered bar charts** Charts in which categories are viewed side-by-side; used only with vertical bar charts.

**code page** A mapping of bit combinations to a set of text characters. Different code pages support different sets of characters. Each computer contains a code page setting for the character set requirements of the language of the computer user. In the context of this document, code pages map characters to bit combinations for non-Unicode encodings. See also encoding.

**column** In Data Relationship Management, a field of data associated with an import source or the results of a query, compare, validation, or export.

**committed access** An Essbase Kernel Isolation Level setting that affects how Essbase handles transactions. Under committed access, concurrent transactions hold long-term write locks and yield predictable results.

**computed item** A virtual column (as opposed to a column that is physically stored in the database or cube) that can be calculated by the database during a query, or by Interactive Reporting Studio in the Results section. Computed items are calculations of data based on functions, data items, and operators provided in the dialog box and can be included in reports or reused to calculate other data.

**connection file** See Interactive Reporting connection file (.oce)

**consolidated file (Parent)** A file into which all of the business unit files are consolidated; contains the definition of the consolidation.

**consolidation** The process of aggregating data from dependent entities to parent entities. For example, if the dimension Year consists of the members Qtr1, Qtr2, Qtr3, and Qtr4, its consolidation is Year.

**consolidation file (*.cns)** A graphical interface that enables you to add, delete, or move Strategic Finance files in the consolidation process using either a Chart or Tree view. It also enables you to define and modify the consolidation.

**consolidation rule** The rule that is executed during the consolidation of the node of the hierarchy. This rule can contain customer-specific formulas appropriate for the correct consolidation of parent balances. Elimination processing can be controlled within these rules.

**content** Information stored in the repository for any type of file.

**content browser** A component that enables users to browse and select content to be placed on a Workspace Page.

**context variable** A variable that is defined for a particular task flow to identify the context of the taskflow instance.

**contribution** The value added to a parent from a child entity. Each child has a contribution to its parent.

**controls groups** Groupings used in FDM to maintain and organize certification and assessment information, especially helpful for meeting Sarbanes-Oxley requirements.

**conversion rate** See exchange rate.

**cookie** A segment of data placed on your computer by a Web site.
**correlated subqueries** Subqueries that are evaluated once for every row in the parent query; created by joining a topic item in the subquery with a topic in the parent query.

**critical business area (CBA)** An individual or a group organized into a division, region, plant, cost center, profit center, project team, or process; also called accountability team or business area.

**critical success factor (CSF)** A capability that must be established and sustained to achieve a strategic objective; owned by a strategic objective or a critical process and is a parent to one or more actions.

**crosstab reporting** Reporting that categorizes and summarizes data in table format. The table cells contain summaries of the data that fit within the intersecting categories. For example, a crosstab report of product sales information could show size attributes, such as Small and Large, as column headings and color attributes, such as Blue and Yellow, as row headings. The cell in the table where Large and Blue intersect could contain the total sales of all Blue products that are sized Large.

**cube** A block of data that contains three or more dimensions. An Essbase database is a cube.

**cube deployment** In Essbase Studio, the process of setting load options for a model to build an outline and load data into an Essbase application and database.

**cube schema** In Essbase Studio, the metadata elements, such as measures and hierarchies, representing the logical model of a cube.

**currency conversion** A process that converts currency values in a database from one currency into another. For example, to convert one U.S. dollar into the European euro, the exchange rate (for example, 0.923702) is multiplied by the dollar (1* 0.923702). After conversion, the European euro amount is .92.

**Currency Overrides** A feature allowing the selected input method for any input period to be overridden to enable input of that period's value as Default Currency/Items. To override the input method, enter a pound sign (#) before or after the number.

**currency partition** A dimension type that separates local currency members from a base currency, as defined in an application. Identifies currency types, such as Actual, Budget, and Forecast.
**data load rules** A set of criteria that determines how to load data from a text-based file, a spreadsheet, or a relational data set into a database.

**data lock** A feature that prevents changes to data according to specified criteria, such as a period or scenario.

**data model** A representation of a subset of database tables.

**data value** See cell.

**database connection** A file that stores definitions and properties used to connect to data sources and enables database references to be portable and widely used.

**date measure** In Essbase, a member tagged as Date in the dimension where measures are represented. The cell values are displayed as formatted dates. Dates as measures can be useful for analysis types that are difficult to represent using the Time dimension. For example, an application may need to track acquisition dates for a series of capital assets, but the acquisition dates span too large a period to allow for feasible Time dimension modeling. See also typed measure.

**Default Currency Units** The unit scale of data. For example, If you select to define your analysis in thousands and enter 10, this unit is interpreted as 10,000.

**dense dimension** In block storage databases, a dimension likely to contain data for every combination of dimension members. For example, time dimensions are often dense because they can contain all combinations of all members. Contrast with sparse dimension.

**dependent entity** An entity that is owned by another entity in the organization.

**derived text measure** In Essbase Studio, a text measure whose values are governed by a predefined rule expressed as a range. For example, a derived text measure, called Sales Performance Index, based on a measure Sales, could consist of the values High, Medium, and Low. This derived text measure is defined to display High, Medium, and Low, depending on the range in which the corresponding sales values fall. See also text measure.

**descendant** Any member below a parent in the database outline. In a dimension that includes years, quarters, and months, the members Qtr2 and April are descendants of the member Year.

**Design Report** An interface in Web Analysis Studio for designing custom reports, from a library of components.

**destination** 1) In Business Rules, a block of the database where calculated values are stored; 2) In Profitability and Cost Management, the association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow.

**destination currency** The currency to which balances are converted. You enter exchange rates and convert from the source currency to the destination currency. For example, when you convert from EUR to USD, the destination currency is USD.

**detail chart** A chart that provides the detailed information that you see in a Summary chart. Detail charts appear in the Investigate Section in columns below the Summary charts. If the Summary chart shows a Pie chart, then the Detail charts below represent each piece of the pie.

**dimension** A data category used to organize business data for the retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. For example, a Year dimension often includes members for each time period, such as quarters and months.

**dimension build** The process of adding dimensions and members to an Essbase outline.

**dimension build rules** Specifications, similar to data load rules, that Essbase uses to modify an outline. The modification is based on data in an external data source file.

**dimension tab** In the Pivot section, the tab that enables you to pivot data between rows and columns.

**dimension table** 1) A table that includes numerous attributes about a specific business process; 2) In Essbase Integration Services, a container in the OLAP model for one or more relational tables that define a potential dimension in Essbase.

**dimension type** A dimension property that enables the use of predefined functionality. Dimensions tagged as time have a predefined calendar functionality.

**dimensionality** In MaxL DML, the represented dimensions (and the order in which they are represented) in a set. For example, the following set consists of two tuples of the same dimensionality, because they both reflect the dimensions (Region, Year): { (West, Feb), (East, Mar) }
**Direct Rate** A currency rate that you enter in the exchange-rate table. The direct rate is used for currency conversion. For example, to convert balances from JPY to USD, in the exchange-rate table, enter a rate for the period/scenario where the source currency is JPY and the destination currency is USD.

**Dirty Block** A data block containing cells that have been changed since the last calculation. Upper-level blocks are marked as dirty if their child blocks are dirty (that is, if they have been updated).

**Disaster Recovery** The ability to safeguard against natural or unplanned outages at a production site by having a recovery strategy for applications and data to a geographically separate standby site.

**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.

**Drill-Down** Navigation through the query result set using the dimensional hierarchy. Drilling down moves the user perspective from aggregated data to detail. For example, drilling down can reveal hierarchical relationships between years and quarters or quarters and months.

**Drill-Through** The navigation from a value in one data source to corresponding data in another source.

**Driver** In Profitability and Cost Management, an allocation method that describes the mathematical relationship between the sources that use the driver and the destinations to which those sources allocate cost or revenue. For Business Modeling, see also cost driver and activity driver.

**Duplicate Alias Name** A name that occurs more than once in an alias table and can be associated with more than one member in a database outline. Duplicate alias names can be used with duplicate member outlines only.

**Duplicate Member Name** Multiple occurrences of a member name in a database, with each occurrence representing a different member. For example, a database has two members named New York. One member represents New York state and the other member represents New York city.

**Duplicate Member Outline** A database outline containing duplicate member names.

**Dynamic Calc and Store Members** Members in a block storage outline that Essbase calculates only upon the first retrieval of the value. Essbase then stores the calculated value in the database. Subsequent retrievals do not require calculating.

**Dynamic Calc Members** Members in a block storage outline that Essbase calculates only at retrieval time. Essbase discards calculated values after completing the retrieval request.

**Dynamic Calculation** In Essbase, a calculation that occurs only when you retrieve data on a member that is tagged as Dynamic Calc or Dynamic Calc and Store. The member’s values are calculated at retrieval time instead of being precalculated during batch calculation.

**Dynamic Hierarchy** In aggregate storage database outlines only, a hierarchy in which members are calculated at retrieval time.

**Dynamic Member List** A system-created named member set that is based on user-defined criteria. The list is refreshed automatically whenever it is referenced in the application. As dimension members are added and deleted, the list automatically reapplies the criteria to reflect the changes.

**Dynamic Reference** A pointer in the rules file to header records in a data source.

**Dynamic Report** A report containing data that is updated when you run the report.

**Dynamic Time Series** A process that performs period-to-date reporting in block storage databases.

**Dynamic View Account** An account type indicating that account values are calculated dynamically from the data that is displayed.

**Eliminated Account** An account that does not appear in the consolidated file.

**Elimination** The process of zeroing out (eliminating) transactions between entities within an organization.

**Employee** A user responsible for, or associated with, specific business objects. Employees need not work for an organization; for example, they can be consultants. Employees must be associated with user accounts, for authorization purposes.
**encoding**  A method for mapping bit combinations to characters for creating, storing, and displaying text. Each encoding has a name; for example, UTF-8. Within an encoding, each character maps to a specific bit combination; for example, in UTF-8, uppercase A maps to HEX41. See also code page, locale.

**ending period**  A period enabling you to adjust the date range in a chart. For example, an ending period of “month” produces a chart showing information through the end of the current month.

**Enterprise View**  An Administration Services feature that enables management of the Essbase environment from a graphical tree view. From Enterprise View, you can operate directly on Essbase artifacts.

**entity**  A dimension representing organizational units. Examples: divisions, subsidiaries, plants, regions, products, or other financial reporting units.

**EPM Oracle home**  A subdirectory of Middleware home containing the files required by EPM System products. The EPM Oracle home location is specified during installation with EPM System Installer.

**EPM Oracle instance**  A directory containing active, dynamic components of EPM System products (components that can change during run-time). You define the EPM Oracle instance directory location during configuration with EPM System Configurator.

**Equity Beta**  The riskiness of a stock, measured by the variance between its return and the market return, indicated by an index called “beta”. For example, if a stock’s return normally moves up or down 1.2% when the market moves up or down 1%, the stock has a beta of 1.2.

**essbase.cfg**  An optional configuration file for Essbase. Administrators may edit this file to customize Essbase Server functionality. Some configuration settings may also be used with Essbase clients to override Essbase Server settings.

**EssCell**  A function entered into a cell in Essbase Spreadsheet Add-in to retrieve a value representing an intersection of specific Essbase database members.

**ESSCMD**  A command-line interface for performing Essbase operations interactively or through batch script files.

**ESSLANG**  The Essbase environment variable that defines the encoding used to interpret text characters. See also encoding.

**ESSMSH**  See MaxL Shell.

**exceptions**  Values that satisfy predefined conditions. You can define formatting indicators or notify subscribing users when exceptions are generated.

**exchange rate type**  An identifier for an exchange rate. Different rate types are used because there may be multiple rates for a period and year. Users traditionally define rates at period end for the average rate of the period and for the end of the period. Additional rate types are historical rates, budget rates, forecast rates, and so on. A rate type applies to a specific time.

**expense account**  An account that stores periodic and year-to-date values that decrease net worth if they are positive.

**Explorer**  A client/server-based tool that delivers query, analysis, and reporting capabilities for power users who need to directly access data sources or to explore the information organized in prebuilt data models stored in the repository.

**Extensible Markup Language (XML)**  A language comprising a set of tags used to assign attributes to data that can be interpreted between applications according to a schema.

**external authentication**  Logging on to Oracle EPM System products with user information stored outside the application. The user account is maintained by the EPM System, but password administration and user authentication are performed by an external service, using a corporate directory such as Oracle Internet Directory (OID) or Microsoft Active Directory (MSAD).

**externally triggered events**  Non-time-based events for scheduling job runs.

**Extract, Transform, and Load (ETL)**  Data-source-specific programs for extracting data and migrating it to applications.

**extraction command**  An Essbase reporting command that handles the selection, orientation, grouping, and ordering of raw data extracted from a database; begins with the less-than (<) character.
**fact table**  The central table in a star join schema, characterized by a foreign key and elements drawn from a dimension table. This table typically contains numeric data that can be related to all other tables in the schema.

**failover**  The ability to switch automatically to a redundant standby database, server, or network if the primary database, server, or network fails or is shut down. A system that is clustered for failover provides high availability and fault tolerance through server redundancy and fault-tolerant hardware, such as shared disks.

**Favorites gadget**  A gadget that contains links to Reporting and Analysis documents and URLs. See also gadget.

**file delimiter**  A character, such as a comma or tab, that separates fields in a data source.

**filter**  A constraint on data sets that restricts values to specific criteria; for example, to exclude certain tables, metadata, or values, or to control access.

**flow account**  An unsigned account that stores periodic and year-to-date values.

**footer**  Text or images at the bottom of report pages, containing dynamic functions or static text such as page numbers, dates, logos, titles or file names, and author names.

**format string** 1) In Essbase, a method for transforming the way cell values are displayed; 2) In Data Relationship Management, a parameter of a Format or Formatted Date derived property that indicates the format in which a property value should be returned.

**formula**  In Data Relationship Management, business logic used by a derived property to dynamically calculate a property value.

**frame**  An area on the desktop. Two main areas: the navigation and workspace frames.

**free-form grid**  An object for presenting, entering, and integrating data from different sources for dynamic calculations.

**free-form reporting**  Creating reports by entering dimension members or report script commands in worksheets.

**function**  In Data Relationship Management, a syntactic element of a derived property formula that accepts parameters and returns dynamic values.

**gadget**  A simple, specialized, lightweight application that provides easy viewing of EPM content and enables access to core Reporting and Analysis functionality.

**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 it is replaced by another global command or the file ends.

**grid POV**  A means for specifying dimension members on a grid without placing dimensions in rows, columns, or page intersections. A report designer can set POV values at the grid level, preventing user POVs from affecting the grid. If a dimension has one grid value, you put the dimension into the grid POV instead of the row, column, or page.

**group**  A container for assigning similar access permissions to multiple users.

**GUI**  Graphical user interface

**hardware cluster**  A collection of computers that provides a single view of network services (for example, an IP address) or application services (such as databases and Web servers) to clients of these services. Each node in a hardware cluster is a standalone server that runs its own processes. These processes can communicate with one another to form what looks like a single system that cooperatively provides applications, system resources, and data to users.

**high availability**  A system attribute that enables an application to continue to provide services in the presence of failures. This is achieved through removal of single points of failure, with fault-tolerant hardware, as well as server clusters; if one server fails, processing requests are routed to another server.
Historical Average  An average for an account over a number of historical periods.

holding company  An entity that is part of a legal entity group, with direct or indirect investments in all entities in the group.

horizontal application server cluster  A cluster with application server instances on different machines.

host  A server on which applications and services are installed.

host properties  Properties pertaining to a host, or if the host has multiple Oracle EPM homes, to an Oracle EPM home.

Hybrid Analysis  An analysis mapping low-level data stored in a relational database to summary-level data stored in Essbase, combining the mass scalability of relational systems with multidimensional data.

hyperlink  A link to a file, a Web page, or an intranet HTML page.

Hypertext Markup Language (HTML)  A programming language specifying how Web browsers display data.

identity  A unique identification for a user or group in external authentication.

image bookmarks  Graphic links to Web pages or repository items.

IMPACTED status  A status that indicates changes in child entities consolidating into parent entities.

implied share  A member with one or more children but only one that is consolidated, so the parent and child share a value.

import format  In FDM, the definition of the structure of the source file that enables the loading of a source data file to an FDM data-load location.

inactive group  A group for which an administrator has deactivated system access.

INACTIVE status  A status that indicates entities deactivated from consolidation for the current period.

inactive user  A user whose account was deactivated by an administrator.

income account  An account storing periodic and year-to-date values that, if positive, increase net worth.

index  1) A method where Essbase uses sparse-data combinations to retrieve data in block storage databases. 2) The index file.

index cache  A buffer containing index pages.

index entry  A pointer to an intersection of sparse dimensions. Index entries point to data blocks on disk and use offsets to locate cells.

index file  An Essbase file storing block storage data retrieval information, residing on disk, and containing index pages.

index page  A subdivision in an index file. An index page contains pointers to data blocks.

input data  Data loaded from a source rather than calculated.

installation assemblies  Product installation files that plug in to EPM System Installer.

integration  A process that is run to move data between Oracle’s Hyperion applications using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and they enable the data movements to be grouped, ordered, and scheduled.

intelligent calculation  A calculation method tracking updated data blocks since the last calculation.

Interactive Reporting connection file (.oce)  Files encapsulating database connection information, including the database API (ODBC, SQL*Net, and so on), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection (.oce) files.

intercompany elimination  See elimination.

intercompany matching  The process of comparing balances for pairs of intercompany accounts within an application. Intercompany receivables are compared to intercompany payables for matches. Matching accounts are used to eliminate intercompany transactions from an organization’s consolidated totals.

intercompany matching report  A report that compares intercompany account balances and indicates whether the accounts are in balance.
**interdimensional irrelevance** A situation in which a dimension does not intersect with other dimensions. Because the data in the dimension cannot be accessed from the nonintersecting dimensions, the nonintersecting dimensions are not relevant to that dimension.

**intersection** A unit of data representing the intersection of dimensions in a multidimensional database; also, a worksheet cell.

**intrastage assignment** An assignment in the financial flow to an object within the same stage.

**introspection** A deep inspection of a data source to discover hierarchies based on the inherent relationships in the database. Contrast with scraping.

**Investigation** See drill-through.

**isolation level** An Essbase Kernel setting that determines the lock and commit behavior of database operations. Choices are: committed access and uncommitted access.

**iteration** A pass of the budget or planning cycle in which the same version of data is revised and promoted.

**Java application server cluster** An active-active application server cluster of Java Virtual Machines (JVMs).

**Java Database Connectivity (JDBC)** A client-server communication protocol used by Java-based clients and relational databases. The JDBC interface provides a call-level API for SQL-based database access.

**job output** Files or reports produced from running a job.

**jobs** Documents with special properties that can be launched to generate output. A job can contain Interactive Reporting, SQR Production Reporting, or generic documents.

**join** A link between two relational database tables or topics based on common content in a column or row. A join typically occurs between identical or similar items within different tables or topics. For example, a record in the Customer table is joined to a record in the Orders table because the Customer ID value is the same in each table.

**journal entry (JE)** A set of debit-credit adjustments to account balances for a scenario and period.

**JSF** Java Server Page.

**KeyContacts gadget** A gadget that contains a group of Smart Space Collaborator users and provides access to Smart Space Collaborator. For example, you can have a KeyContacts gadget for your marketing team and another for your development team. See also gadget.

**latest** A spreadsheet keyword used to extract data values from the member defined as the latest time period.

**layer** 1) The horizontal location of members in a hierarchical structure, specified by generation (top down) or level (bottom up); 2) Position of objects relative to other objects. For example, in the Sample Basic database, Qtr1 and Qtr4 are in the same layer, so they are also in the same generation, but in a database with a ragged hierarchy, Qtr1 and Qtr4 might not be in the same layer, though they are in the same generation.

**layout area** An area on a Workspace Page where content can be placed.

**legend box** A box containing labels that identify the data categories of a dimension.

**level** A layer in a hierarchical tree structure that defines database member relationships. Levels are ordered from the bottom dimension member (level 0) up to the parent members.

**level 0 block** A data block for combinations of sparse, level 0 members.

**level 0 member** A member that has no children.

**liability account** An account type that stores “point in time” balances of a company’s liabilities. Examples: accrued expenses, accounts payable, and long-term debt.

**lifecycle management** The process of migrating an application, a repository, or individual artifacts across product environments.

**line item detail** The lowest level of detail in an account.

**lineage** The relationship between different metadata elements showing how one metadata element is derived from one or more other metadata elements, ultimately tracing the metadata element to its physical source. In Essbase Studio, a lineage viewer displays the relationships graphically. See also traceability.
link 1) A reference to a repository object. Links can reference folders, files, shortcuts, and other links; 2) In a taskflow, the point where the activity in one stage ends and another begins.

link condition A logical expression evaluated by the taskflow engine to determine the sequence of launching taskflow stages.

linked data model Documents that are linked to a master copy in a repository.

linked partition A shared partition that enables you to use a data cell to link two databases. When a user clicks a linked cell in a worksheet, Essbase opens a new sheet displaying the dimensions in the linked database. The user can then drill down those dimensions.

linked reporting object (LRO) A cell-based link to an external file such as cell notes, URLs, or files with text, audio, video, or pictures. (Only cell notes are supported for Essbase LROs in Financial Reporting.) Contrast with local report object.

load balancer Hardware or software that directs the requests to individual application servers in a cluster and is the only point of entry into the system.

load balancing Distribution of requests across a group of servers, which helps to ensure optimal end user performance.

local currency An input currency type. When an input currency type is not specified, the local currency matches the entity’s base currency.

local report object A report object that is not linked to a Financial Reporting report object in Explorer. Contrast with linked reporting object.

local results A data model’s query results. Results can be used in local joins by dragging them into the data model. Local results are displayed in the catalog when requested.

locale A computer setting that specifies a location’s language, currency and date formatting, data sort order, and the character set encoding used on the computer. Essbase uses only the encoding portion. See also encoding, ESSLANG.

locale header record A text record at the beginning of some non-Unicode-encoded text files, such as scripts, that identifies the encoding locale.

location alias A descriptor that identifies a data source. The location alias specifies a server, application, database, user name, and password. Location aliases are set by DBAs at the database level using Administration Services Console, ESSCMD, or the API.

locked A user-invoked process that prevents users and processes from modifying data.

locked data model A data model that cannot be modified by a user.

LOCKED status A consolidation status indicating that an entity contains data that cannot be modified.

Log Analyzer An Administration Services feature that enables filtering, searching, and analysis of Essbase logs.

logic group In FDM, one or more logic accounts generated after a source file is loaded into FDM. Logic accounts are calculated accounts derived from the source data.

logical Web application An aliased reference used to identify the internal host name, port, and context of a Web application. In a clustered or high-availability environment, this is the alias name that establishes a single internal reference for the distributed components. In EPM System, a nonclustered logical Web application defaults to the physical host running the Web application.

LRO See linked reporting object.

managed server An application server process running in its own Java Virtual Machine (JVM).

manual stage A stage that requires human intervention.

Map File A file that stores the definition for sending data to or retrieving data from an external database. Map files have different extensions (.mps to send data; .mpr to retrieve data).

Map Navigator A feature that displays your current position on a Strategy, Accountability, or Cause and Effect map, indicated by a red outline.

Marginal Tax Rate The rate used to calculate the after-tax cost of debt; represents the tax rate applied to the last earned income dollar (the rate from the highest tax bracket into which income falls) and includes federal, state, and local taxes. Based on current level of taxable income and tax bracket, you can predict marginal tax rate.
Market Risk Premium  The additional rate of return paid over the risk-free rate to persuade investors to hold riskier investments than government securities. Calculated by subtracting the risk-free rate from the expected market return. These figures should closely model future market conditions.

master data model  An independent data model that is referenced as a source by multiple queries. When used, "Locked Data Model" is displayed in the Query section's Content pane; the data model is linked to the master data model displayed in the Data Model section, which an administrator may hide.

mathematical operator  A symbol that defines how data is calculated in formulas and outlines. Can be any of the standard mathematical or Boolean operators; for example, +, -, *, /, and %.

MaxL  The multidimensional database access language for Essbase, consisting of a data definition language (MaxL DDL) and a data manipulation language (MaxL DML). See also MaxL DDL, MaxL DML, and MaxL Shell

MaxL DDL  The data definition language used by Essbase for batch or interactive system-administration tasks.

MaxL DML  The data manipulation language used in Essbase for data query and extraction.

MaxL Perl Module  A Perl module (essbase.pm) that is part of Essbase MaxL DDL. This module can be added to the Perl package to provide access to Essbase databases from Perl programs.

MaxL Script Editor  A script-development environment in Administration Services Console. MaxL Script Editor is an alternative to using a text editor and the MaxL Shell for administering Essbase with MaxL scripts.

MaxL Shell  An interface for passing MaxL statements to Essbase Server. The MaxL Shell executable file is located in the Essbase bin directory (UNIX: essmsh; Windows: essmsh.exe).

MDX (multidimensional expression)  A language used for querying and calculation in multidimensional-compliant databases.

measures  Numeric values in an OLAP database cube that are available for analysis. Measures are margin, cost of goods sold, unit sales, budget amount, and so on. See also fact table.

member  A discrete component within a dimension. A member identifies and differentiates the organization of similar units. For example, a time dimension might include members Jan, Feb, and Qtr1.

member list  A named system- or user-defined group that references members, functions, or member lists within a dimension.

member load  In Essbase Integration Services, the process of adding dimensions and members (without data) to Essbase outlines.

member selection report command  A type of Report Writer command that selects member ranges based on outline relationships, such as sibling, generation, and level.

member-specific report command  A type of Report Writer formatting command that is executed as it is encountered in a report script. The command affects only its associated member and executes the format command before processing the member.

merge  A data load option that clears values only from the accounts specified in the data load file and replaces them with values in the data load file.

metadata  A set of data that defines and describes the properties and attributes of the data stored in a database or used by an application. Examples of metadata are dimension names, member names, properties, time periods, and security.

metadata elements  Metadata derived from data sources and other metadata that is stored and cataloged for Essbase Studio use.

metadata sampling  The process of retrieving a sample of members in a dimension in a drill-down operation.

metadata security  Security set at the member level to restrict users from accessing certain outline members.

metaoutline  In Essbase Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.
**Middleware home**  
A directory that includes the Oracle WebLogic Server home and can also include the EPM Oracle home and other Oracle homes. A Middleware home can reside on a local file system or on a remote shared disk that is accessible through NFS.

**migration audit report**  
A report generated from the migration log that provides tracking information for an application migration.

**migration definition file (.mdf)**  
A file that contains migration parameters for an application migration, enabling batch script processing.

**migration log**  
A log file that captures all application migration actions and messages.

**migration snapshot**  
A snapshot of an application migration that is captured in the migration log.

**MIME Type**  
An attribute that describes the data format of an item, so that the system knows which application should open the object. A file’s MIME (Multipurpose Internet Mail Extension) type is determined by the file extension or HTTP header. Plug-ins tell browsers which MIME types they support and which file extensions correspond to each MIME type.

**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) A file or content string containing an application-specific representation of data. Models are the basic data managed by Shared Services, of two major types: dimensional and nondimensional application objects; 2) In Business Modeling, a network of boxes connected to represent and calculate the operational and financial flow through the area being examined.

**multidimensional database**  
A method of organizing, storing, and referencing data through three or more dimensions. An individual value is the intersection point for a set of dimensions. Contrast with relational database.

**Multiload**  
An FDM feature that allows the simultaneous loading of multiple periods, categories, and locations.

**My Workspace Page**  
Customizable Workspace Pages created by users. They are marked specially so that they can be easily accessed from one single place without having to navigate the repository.

**named set**  
In MaxL DML, a set with its logic defined in the optional WITH section of a MaxL DML query. The named set can be referenced multiple times in the query.

**native authentication**  
The process of authenticating a user name and password from within the server or application.

**nested column headings**  
A report column heading format that displays data from multiple dimensions. For example, a column heading that contains Year and Scenario members is a nested column. The nested column heading shows Q1 (from the Year dimension) in the top line of the heading, qualified by Actual and Budget (from the Scenario dimension) in the bottom line of the heading.

**NO DATA status**  
A consolidation status indicating that this entity contains no data for the specified period and account.

**non-dimensional model**  
A Shared Services model type that includes application objects such as security files, member lists, calculation scripts, and Web forms.

**non-unique member name**  
See duplicate member name.

**null value**  
A value that is absent of data. Null values are not equal to zero.

**numeric attribute range**  
A feature used to associate a base dimension member that has a discrete numeric value with an attribute that represents a value range. For example, to classify customers by age, an Age Group attribute dimension can contain members for the following age ranges: 0-20, 21-40, 41-60, and 61-80. Each Customer dimension member can be associated with an Age Group range. Data can be retrieved based on the age ranges rather than on individual age values.
ODBC  Open Database Connectivity. A database access method used from any application regardless of how the database management system (DBMS) processes the information.

OK status  A consolidation status indicating that an entity has already been consolidated, and that data has not changed below it in the organization structure.

OLAP Metadata Catalog  In Essbase Integration Services, a relational database containing metadata describing the nature, source, location, and type of data that is pulled from the relational data source.

OLAP model  In Essbase Integration Services, a logical model (star schema) that is created from tables and columns in a relational database. The OLAP model is then used to generate the structure of a multidimensional database. See also online analytical processing (OLAP).

online analytical processing (OLAP)  A multidimensional, multiuser, client-server computing environment for users who analyze consolidated enterprise data in real time. OLAP systems feature drill-down, data pivoting, complex calculations, trend analysis, and modeling.

Open Database Connectivity (ODBC)  Standardized application programming interface (API) technology that allows applications to access multiple third-party databases.

Oracle home  A directory containing the installed files required by a specific product, and residing within the directory structure of Middleware home. See also Middleware home.

organization  An entity hierarchy that defines each entity and their relationship to others in the hierarchy.

origin  The intersection of two axes.

outline  The database structure of a multidimensional database, including all dimensions, members, tags, types, consolidations, and mathematical relationships. Data is stored in the database according to the structure defined in the outline.

outline synchronization  For partitioned databases, the process of propagating outline changes from one database to another database.

P&L accounts (P&L)  Profit and loss accounts. P&L refers to a typical grouping of expense and income accounts that comprise a company’s income statement.

page  A display of information in a grid or table often represented by the Z-axis. A page can contain data from one field, derived data from a calculation, or text.

page file  An Essbase data file.

page heading  A report heading type that lists members represented on the current page of the report. All data values on the page have the members in the page heading as a common attribute.

page member  A member that determines the page axis.

palette  A JASC-compliant file with a .PAL extension. Each palette contains 16 colors that complement each other and can be used to set the dashboard color elements.

parallel calculation  A calculation option. Essbase divides a calculation into tasks and calculates some tasks simultaneously.

parallel data load  In Essbase, the concurrent execution of data load stages by multiple process threads.

parallel export  The ability to export Essbase data to multiple files. This may be faster than exporting to a single file, and it may resolve problems caused by a single data file becoming too large for the operating system to handle.

parent adjustments  The journal entries that are posted to a child in relation to its parent.

parents  The entities that contain one or more dependent entities that report directly to them. Because parents are entities associated with at least one node, they have entity, node, and parent information associated with them.

partition area  A subcube within a database. A partition is composed of one or more areas of cells from a portion of the database. For replicated and transparent partitions, the number of cells within an area must be the same for the data source and target to ensure that the two partitions have the same shape. If the data source area contains 18 cells, the data target area must also contain 18 cells to accommodate the number of values.

partitioning  The process of defining areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications.
pattern matching  The ability to match a value with any or all characters of an item entered as a criterion. Missing characters may be represented by wild-card values such as a question mark (?) or an asterisk (*). For example, "Find all instances of apple" returns apple, but "Find all instances of apple*" returns apple, applesauce, applecranberry, and so on.

percent consolidation  The portion of a child's values that is consolidated to its parent.

percent control  The extent to which an entity is controlled within the context of its group.

percent ownership  The extent to which an entity is owned by its parent.

performance indicator  An image file used to represent measure and scorecard performance based on a range you specify; also called a status symbol. You can use the default performance indicators or create an unlimited number of your own.

periodic value method (PVA)  A process of currency conversion that applies the periodic exchange rate values over time to derive converted results.

permission  A level of access granted to users and groups for managing data or other users and groups.

persistence  The continuance or longevity of effect for any Essbase operation or setting. For example, an Essbase administrator may limit the persistence of user name and password validity.

personal pages  A personal window to repository information. You select what information to display and its layout and colors.

personal recurring time events  Reusable time events that are accessible only to the user who created them.

personal variable  A named selection statement of complex member selections.

perspective  A category used to group measures on a scorecard or strategic objectives within an application. A perspective can represent a key stakeholder (such as a customer, employee, or shareholder/financial) or a key competency area (such as time, cost, or quality).

pinboard  One of the three data object display types. Pinboards are graphics composed of backgrounds and interactive icons called pins. Pinboards require traffic lighting definitions.

pins  Interactive icons placed on graphic reports called pinboards. Pins are dynamic. They can change images and traffic lighting color based on the underlying data values and analysis tools criteria.

pivot  Alter the perspective of retrieved data. When Essbase first retrieves a dimension, it expands data into rows. You can then pivot or rearrange the data to obtain a different viewpoint.

planner  A user who can input and submit data, use reports that others create, execute business rules, use task lists, enable email notification for themselves, and use Smart View. Planners comprise the majority of users.

planning unit  A data slice at the intersection of a scenario, version, and entity; the basic unit for preparing, reviewing, annotating, and approving plan data.

plot area  The area bounded by X, Y, and Z axes; for pie charts, the rectangular area surrounding the pie.

plug account  An account in which the system stores any out-of-balance differences between intercompany account pairs during the elimination process.

post stage assignment  Assignments in the allocation model that are assigned to locations in a subsequent model stage.

POV (point of view)  A feature for setting data focus by selecting members that are not already assigned to row, column, or page axes. For example, selectable POVs in FDM could include location, period, category, and target category. In another example, using POV as a filter in Smart View, you could assign the Currency dimension to the POV and select the Euro member. Selecting this POV in data forms displays data in Euro values.

precalculation  Calculating the database before user retrieval.

precision  Number of decimal places displayed in numbers.

predefined drill paths  Paths used to drill to the next level of detail, as defined in the data model.
presentation  A playlist of Web Analysis documents, enabling reports to be grouped, organized, ordered, distributed, and reviewed. Includes pointers referencing reports in the repository.

preserve formulas  User-created formulas kept within a worksheet while retrieving data.

primary measure  A high-priority measure important to your company and business needs. Displayed in the Contents frame.

Process Monitor Report  A list of locations and their positions within the FDM data conversion process. You can use the process monitor report to monitor the status of the closing process. The report is time-stamped. Therefore, it can be used to determine to which locations at which time data was loaded.

product  In Shared Services, an application type, such as Planning or Performance Scorecard.

Production Reporting  See SQR Production Reporting.

project  An instance of Oracle’s Hyperion products grouped together in an implementation. For example, a Planning project may consist of a Planning application, an Essbase cube, and a Financial Reporting Server instance.

provisioning  The process of granting users and groups specific access permissions to resources.

proxy server  A server acting as an intermediary between workstation users and the Internet to ensure security.

public job parameters  Reusable named job parameters created by administrators and accessible to users with requisite access privileges.

public recurring time events  Reusable time events created by administrators and accessible through the access control system.

PVA  See periodic value method.

qualified name  A member name in a qualified format that differentiates duplicate member names in a duplicate member outline. For example, [Market].[East].[State]. [New York] or [Market].[East].[City].[New York].

query governor  An Essbase Integration Server parameter or Essbase Server configuration setting that controls the duration and size of queries made to data sources.

reciprocal assignment  An assignment in the financial flow that also has the source as one of its destinations.

reconfigure URL  A URL that is used to reload servlet configuration settings dynamically when users are already logged on to the Workspace.

record  In a database, a group of fields making up one complete entry. For example, a customer record may contain fields for name, address, telephone number, and sales data.

recurring template  A journal template for making identical adjustments in every period.

recurring time event  An event specifying a starting point and the frequency for running a job.

redundant data  Duplicate data blocks that Essbase retains during transactions until Essbase commits updated blocks.

regular journal  A feature for entering one-time adjustments for a period. A regular journal can be balanced, balanced by entity, or unbalanced.

Related Accounts  Accounts related to the main account and grouped under the same main account number. The account structure groups all main and related accounts under the same main account number. The main account is distinguished from related accounts by the first suffix of the account number.

relational database  A type of database that stores data in related two-dimensional tables. Contrast with multidimensional database.

replace  A data load option that clears existing values from all accounts for periods specified in the data load file and loads values from the data load file. If an account is not specified in the load file, its values for the specified periods are cleared.

replicated partition  A portion of a database, defined through Partition Manager, used to propagate an update to data mastered at one site to a copy of data stored at another site. Users can access the data as though it were part of their local database.

Report Extractor  An Essbase component that retrieves report data from the Essbase database when report scripts are run.
**report object** In report designs, a basic element with properties defining behavior or appearance, such as text boxes, grids, images, and charts.

**report script** A text file containing Essbase Report Writer commands that generate one or more production reports.

**Report Viewer** An Essbase component that displays complete reports after report scripts are run.

**reporting currency** The currency used to prepare financial statements, and converted from local currencies to reporting currencies.

**repository** Storage location for metadata, formatting, and annotation information for views and queries.

**resources** Objects or services managed by the system, such as roles, users, groups, files, and jobs.

**restore** An operation to reload data and structural information after a database has been damaged or destroyed, typically performed after shutting down and restarting the database.

**restructure** An operation to regenerate or rebuild the database index and, in some cases, data files.

**result frequency** The algorithm used to create a set of dates to collect and display results.

**review level** A Process Management review status indicator representing the process unit level, such as Not Started, First Pass, Submitted, Approved, and Published.

**Risk Free Rate** The rate of return expected from "safer" investments such as long-term U.S. government securities.

**role** The means by which access permissions are granted to users and groups for resources.

**roll-up** See consolidation.

**root member** The highest member in a dimension branch.

**runtime prompt** A variable that users enter or select before a business rule is run.

**sampling** The process of selecting a representative portion of an entity to determine the entity's characteristics. See also metadata sampling.

**saved assumptions** User-defined Planning assumptions that drive key business calculations (for example, the cost per square foot of office floor space).

**scaling** Scaling determines the display of values in whole numbers, tens, hundreds, thousands, millions, and so on.

**scenario** A dimension for classifying data; for example, Actuals, Budget, Forecast1, or Forecast2.

**schema** In relational databases, a logical model that represents the data and the relationships between the data.

**scope** The area of data encompassed by any Essbase operation or setting; for example, the area of data affected by a security setting. Most commonly, scope refers to three levels of granularity, where higher levels encompass lower levels. The levels, from highest to lowest: the entire system (Essbase Server), applications on Essbase Server, or databases within Essbase Server applications. See also persistence.

**score** The level at which targets are achieved, usually expressed as a percentage of the target.

**scorecard** A business object that represents the progress of an employee, strategy element, or accountability element toward goals. Scorecards ascertain this progress based on data collected for each measure and child scorecard added to the scorecard.

**scraping** An inspection of a data source to derive the most basic metadata elements from it. Contrast with introspection.

**secondary measure** A low-priority measure, less important than primary measures. Secondary measures do not have Performance reports but can be used on scorecards and to create dimension measure templates.

**security agent** A Web access management provider (for example, Oracle Access Manager, Oracle Single Sign-On, or CA SiteMinder) that protects corporate Web resources.

**security platform** A framework enabling Oracle EPM System products to use external authentication and single sign-on.

**serial calculation** The default calculation setting. Divides a calculation pass into tasks and calculates one task at a time.

**services** Resources that enable business items to be retrieved, changed, added, or deleted. Examples: Authorization and Authentication.

**servlet** A piece of compiled code executable by a Web server.

**shared disks** See shared storage.
shared member  A member that shares storage space with another member of the same name, preventing duplicate calculation of members that occur multiple times in an Essbase outline.

Shared Services Registry  The part of the Shared Services repository that manages EPM System deployment information for most EPM System products, including installation directories, database settings, computer names, ports, servers, URLs, and dependent service data.

shared storage  A set of disks containing data that must be available to all nodes of a failover cluster; also called shared disks.

Shared Workspace Pages  Workspace Pages shared across an organization that are stored in a special System folder and can be accessed by authorized users from the Shared Workspace Pages Navigate menu.

sibling  A child member at the same generation as another child member and having the same immediate parent. For example, the members Florida and New York are children of East and each other’s siblings.

silent response files  Files providing data that an installation administrator would otherwise be required to provide. Response files enable EPM System Installer or EPM System Configurator to run without user intervention or input.

single point of failure  Any component in a system that, if it fails, prevents users from accessing the normal functionality.

single sign-on (SSO)  The ability to log on once and then access multiple applications without being prompted again for authentication.

smart tags  Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In Oracle EPM System products, smart tags can also be used to import Reporting and Analysis content and to access Financial Management and Essbase functions.

SmartCut  A link to a repository item, in URL form.

snapshot  Read-only data from a specific time.

source currency  The currency from which values originate and are converted through exchange rates to the destination currency.

sparse dimension  In block storage databases, a dimension unlikely to contain data for all member combinations when compared to other dimensions. Contrast with dense dimension. For example, not all customers have data for all products.

SPF files  Printer-independent files created by an SQR Production Reporting server, containing a representation of the actual formatted report output, including fonts, spacing, headers, footers, and so on.

Spotlighter  A tool that enables color coding based on selected conditions.

SQL spreadsheet  A data object that displays the result set of a SQL query.

SQR Production Reporting  A specialized programming language for data access, data manipulation, and creating SQR Production Reporting documents.

stage  1) A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated; 2) For Profitability, logical divisions within the model that represent the steps in the allocation process within your organization.

stage action  For automated stages, the invoked action that executes the stage.

staging area  A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

staging table  A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

standard dimension  A dimension that is not an attribute dimension.

standard journal template  A journal function used to post adjustments that have common adjustment information for each period. For example, you can create a standard template that contains the common account IDs, entity IDs, or amounts, and then use the template as the basis for many regular journals.

Status bar  The bar at the bottom of the screen that displays helpful information about commands, accounts, and the current status of your data file.
**stored hierarchy**  In aggregate storage databases outlines only, a hierarchy in which the members are aggregated according to the outline structure. Stored hierarchy members have certain restrictions; for example, they cannot contain formulas.

**strategic objective (SO)**  A long-term goal defined by measurable results. Each strategic objective is associated with one perspective in the application, has one parent, the entity, and is a parent to critical success factors or other strategic objectives.

**Strategy map**  Represents how the organization implements high-level mission and vision statements into lower-level, constituent strategic goals and objectives.

**structure view**  Displays a topic as a simple list of component data items.

**Structured Query Language**  A language used to process instructions to relational databases.

**Subaccount Numbering**  A system for numbering subaccounts using nonsequential whole numbers.

**subscribe**  Flags an item or folder to receive automatic notification whenever the item or folder is updated.

**Summary chart**  In the Investigates Section, a chart that rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

**supervisor**  A user with full access to all applications, databases, related files, and security mechanisms for a server.

**supporting detail**  Calculations and assumptions from which the values of cells are derived.

**suppress rows**  A setting that excludes rows containing missing values and underscores characters from spreadsheet reports.

**symmetric multiprocessing (SMP)**  A server architecture that enables multiprocessing and multithreading. Performance is not significantly degraded when a large number of users simultaneously connect to an single instance.

**symmetric topology**  An Oracle Fusion Middleware Disaster Recovery configuration that is identical across tiers on the production site and standby site. In a symmetric topology, the production site and standby site have the identical number of hosts, load balancers, instances, and applications. The same ports are used for both sites. The systems are configured identically and the applications access the same data.

**sync**  Synchronization of Shared Services and application models.

**synchronized**  The condition that exists when the latest version of a model resides in both the application and in Shared Services. See also model.

**system extract**  A feature that transfers data from application metadata into an ASCII file.

**tabs**  Navigable views of accounts and reports in Strategic Finance.

**target**  Expected results of a measure for a specified period of time (day, quarter, and so on).

**task list**  A detailed status list of tasks for a particular user.

**taskflow**  The automation of a business process in which tasks are passed from one taskflow participant to another according to procedural rules.

**taskflow definition**  Business processes in the taskflow management system that consist of a network of stages and their relationships; criteria indicating the start and end of the taskflow; and information about individual stages, such as participants, associated applications, associated activities, and so on.

**taskflow instance**  A single instance of a taskflow including its state and associated data.

**taskflow management system**  A system that defines, creates, and manages the execution of a taskflow, including definitions, user or application interactions, and application executables.

**taskflow participant**  The resource that performs the task associated with the taskflow stage instance for both manual and automated stages.
**Taxes - Initial Balances** Strategic Finance assumes that the Initial Loss Balance, Initial Gain Balance, and Initial Balance of Taxes Paid entries have taken place in the period before the first Strategic Finance time period.


**text list** In Essbase, an object that stores text values mapped to numeric identifiers. Text Lists enable the use of text measures.

**text measure** In Essbase, a member tagged as Text in the dimension where measures are represented. The cell values are displayed as predefined text. For example, the text measure Satisfaction Index may have the values Low, Medium, and High. See also typed measure, text list, derived text measure.

**time dimension** The time period that the data represents, such as fiscal or calendar periods.

**time events** Triggers for job execution.

**time scale** A scale that displays metrics by a specific time span, such as monthly or quarterly.

**time series reporting** A process for reporting data based on a calendar date (for example, year, quarter, month, or week).

**Timeline Viewer** An FDM feature that enables users to view dates and times of completed process flow steps for specific locations.

**Title bar** A bar that displays the Strategic Finance name, the file name, and the scenario name Version box.

**toast message** A message that fades in the lower-right corner of the screen.

**token** An encrypted identification of one valid user or group on an external authentication system.

**top and side labels** Column and row headings on the top and sides of a Pivot report.

**top-level member** A dimension member at the top of the tree in a dimension outline hierarchy, or the first member of the dimension in sort order if there is no hierarchical relationship among dimension members. If a hierarchical relationship exists, the top-level member name is generally the same as the dimension name.

**trace allocations** A Profitability feature that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

**trace level** The level of detail captured in a log file.

**traceability** The ability to track a metadata element to its physical source. For example, in Essbase Studio, a cube schema can be traced from its hierarchies and measure hierarchies to its dimension elements, date/time elements, measures, and, ultimately, to its physical source elements. See also lineage.

**traffic lighting** Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

**transformation** A process that transforms artifacts so that they function properly in the destination environment after application migration.

**translation** See currency conversion.

**Transmission Control Protocol/Internet Protocol (TCP/IP)** A standard set of communication protocols linking computers with different operating systems and internal architectures. TCP/IP utilities are used to exchange files, send mail, and store data to various computers that are connected to local and wide area networks.

**transparent login** A process that logs in authenticated users without launching the login screen.

**transparent partition** A shared partition that enables users to access and change data in a remote database as though it is part of a local database.

**triangulation** A means of converting balances from one currency to another through a third common currency. For example, to convert balances from the Danish krone to the British pound, balances could be converted from the krone to the euro and from the euro to the pound.

**triggers** An Essbase feature whereby data is monitored according to user-specified criteria that, when met, cause Essbase to alert the user or system administrator.

**trusted user** Authenticated user.
tuple  MDX syntax element that references a cell as an intersection of a member from each dimension. If a dimension is omitted, its top member is implied. Examples: (Jan); (Jan, Sales); ( [Jan], [Sales], [Cola], [Texas], [Actual] ).

two-pass  An Essbase property that is used to recalculate members that are dependent on the calculated values of other members. Two-pass members are calculated during a second pass through the outline.

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.

unique member name  A nonshared member name that exists only once in a database outline.

unique member outline  A database outline that is not enabled for duplicate member names.

upgrade  The process of deploying a new software release and moving applications, data, and provisioning information from an earlier deployment to the new deployment.

upper-level block  A type of data block wherein at least one of the sparse members is a parent-level member.

user directory  A centralized location for user and group information, also known as a repository or provider. Popular user directories include Oracle Internet Directory (OID), Microsoft Active Directory (MSAD), and Sun Java System Directory Server.

user variable  A variable that dynamically renders data forms based on a user’s member selection, displaying only the specified entity. For example, a user variable named Department displays specific departments and employees.

user-defined attribute (UDA)  An attribute, associated with members of an outline to describe a characteristic of the members, that can be used to return lists of members that have the specified associated UDA.

user-defined member list  A named, static set of members within a dimension defined by the user.

validation  The process of checking a business rule, report script, or partition definition against the outline to ensure that the object being checked is valid.

validation rules  Rules used in FDM to enforce data integrity. For example, in FDM, validation rules ensure that certain conditions are met after data is loaded from FDM to the target application.

value dimension  A dimension that is used to define input value, translated value, and consolidation detail.

variance  The difference between two values (for example, between planned and actual values).

version  A possible outcome used within the context of a scenario of data. For example, Budget - Best Case and Budget - Worst Case where Budget is scenario and Best Case and Worst Case are versions.

vertical application server cluster  A cluster with multiple application server instances on the same machine.

view  A year-to-date or periodic display of data.

visual cue  A formatted style, such as a font or a color, that highlights specific data value types. Data values may be dimension members; parent, child, or shared members; dynamic calculations; members containing a formula; read-only data cells; read-and-write data cells; or linked objects.

WebLogic Server home  A subdirectory of Middleware home containing installed files required by a WebLogic Server instance. WebLogic Server home is a peer of Oracle homes.

weight  A value assigned to an item on a scorecard that indicates the relative importance of that item in the calculation of the overall scorecard score. The weighting of all items on a scorecard accumulates to 100%. For example, to recognize the importance of developing new features for a product, the measure for New Features Coded on a developer’s scorecard would be assigned a higher weighting than a measure for Number of Minor Defect Fixes.

wild card  Character that represents any single character (?) or group of characters (*) in a search string.
**WITH section**  In MaxL DML, an optional section of the query used for creating reusable logic to define sets or members. Sets or custom members can be defined once in the WITH section and then referenced multiple times during a query.

**workbook**  An entire spreadsheet file with many worksheets.

**workflow**  The steps required to process data from start to finish in FDM. The workflow consists of Import (loading data from the GL file), Validate (ensures that all members are mapped to a valid account), Export (loads the mapped members to the target application), and Check (verifies accuracy of data by processing data with user-defined validation rules).

**Workspace Page**  A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

**write-back**  The ability for a retrieval client, such as a spreadsheet, to update a database value.

**ws.conf**  A configuration file for Windows platforms.

**wsconf_platform**  A configuration file for UNIX platforms.

**XML**  See Extensible Markup Language.

**XOLAP**  An Essbase multidimensional database that stores only the outline metadata and retrieves all data from a relational database at query time. XOLAP supports aggregate storage databases and applications that contain duplicate member names.

**Y axis scale**  A range of values on Y axis of charts displayed in Investigate Section. For example, use a unique Y axis scale for each chart, the same Y axis scale for all Detail charts, or the same Y axis scale for all charts in the column. Often, using a common Y axis improves your ability to compare charts at a glance.

**Zero Administration**  A software tool that identifies version number of the most up-to-date plug-in on the server.

**ZoomChart**  A tool for viewing detailed information by enlarging a chart. A ZoomChart enables you to see detailed numeric information on the metric that is displayed in the chart.
Index

A
access permissions
  defined, 28
  descriptions of, 31
  setting, 28
access, setting access, 28
active preference, user interface, 13
active user preference, 13
adding
  exceptions to Exceptions Dashboard, 34
  versions, 36
advanced member selection
  defining subset member selections, 55, 57
  Hyperion Financial Management, 121
  overview, 49
  searching for members, 52
alias tables
  about, 14
  setting, 15
analysis tools
  definitions
    default, 73
    disabling, 73
    enabling, 73
    ordering, 73
  overview, 72
  Restrict Data, 79
  Retrieve Only Top/Bottom, 81
  Sorting, 78
  Traffic Lighting, 76
Analysis Tools Manager
  toolbar, 72
arranging dimensions in the layout, 47
artifacts
  setting access permissions, 28
asymmetrical analysis, 73
auto-delete
  Browse web module, 34
  Average calculation, 103

B
browsers
  Dimension Browser, 48
buttons
  replacing, 35

C
calculations
  Average, 103
  creating, 109
  Cumulative, 103
  Difference from Average, 104
  Divide, 104
  Linear Regression, 104
  Maximum, 104
  Maximum Value, 105
  Minimum, 105
  Minimum Value, 105
  modifying, 113
  Multiply, 105
  Percent, 105
  Percent Difference from Average, 106
  Percent of Difference, 106
  Percent of Member, 106
  Percent of Total, 106
  Rank Ascending, 107
  Rank Descending, 107
  Subtract, 107
  Sum, 107, 108
  Trend, 108
  Variance, 108
  Variance Percent, 108
cells, formatting, 93
Chart Properties panel
  Axes tab, 98
Bubble tab, 100
General tab, 96
Pie tab, 100
Series tab, 99
Titles tab, 97
chart properties, overview, 96
Chart User Preferences panel
Axes tab, 98
Bubble tab, 100
General tab, 96
Pie tab, 100
Series tab, 99
Titles tab, 97
charts
overview, 95
colors
hiding by color, 73
selecting, 101
columns
fitting header labels in, 85, 94
sizing
overview, 85, 94
resetting default widths, 85, 94
content
publishing, 22
coordinating selected dimensions, 127
creating
calculations, 109
personal variables, 60
Cube Navigator
overview, 47
Cumulative calculation, 103

data formatting, 93
data source, linking components by, 127
data values, hiding by, 73
databases
Web Analysis preferences, 13
date selections, 61
detail, line item, 120
Difference from Average calculation, 104
Dimension Browser
labels in, 49
overview, 48
dimension headers, sorting, 90
dimension members
selecting with Dimension Browser, 48
dimensions
arranging in the layout, 47
browsing, 48
coordinating selected, 127
moving, 64
selecting with Cube Navigator, 47
swapping, 64
Divide calculation, 104
documents
changing display types for, 95
locking display types for, 95
drill linking
overview, 68
drilling
overview, 65
Dynamic Time Series
definitions, 61
substitution variables, 61

E
ingiting
Restrict Data definitions, 81
Retrieve Only Top-Bottom definitions, 83
Essbase
features extended through Hyperion Analyzer, 117
substitution variables. See substitution variables.
export
Web Analysis, 19

F
features
Essbase, 117
Hyperion Financial Management, 119
files
HTML, 22
owner, 32
publishing multiple, 22, 23
size, 32
flag exception, 37
font properties, 102
formatting
cells, 93
chart properties, 96
data, 93
methods, order of precedence, 86
Web Analysis preferences, 13

H
header labels, fitting in columns, 85, 94
hide artifact, when publishing, 33
hiding
by color, 73
by data value, 73
by selected members, 73
HTML files
publishing, 22
Hyperion Financial Management
advanced member selection, 121, 123
conventions, 122
features extended through Hyperion Analyzer, 119
overview, 119

I
intersections, paging through, 64

K
keywords
automatically generating, 34

L
label mode
overview, 89
layouts
arranging dimensions in, 47
line item detail, 120
Linear Regression calculation, 104
linking
components by data source, 127
selected dimensions, 128
lists
versions of file, 37

M
Maximum calculation, 104
Maximum Value calculation, 105
member selection
advanced. See advanced member selection.
defining previous, 62
Microsoft Office
importing Web Analysis documents, 19
MIME types
defined, 33
unknown, 21
Minimum calculation, 105
Minimum Value calculation, 105
modifying
properties of versions, viewing or, 36
modifying calculations, 113
multiple files, publishing, 22, 23
Multiply calculation, 105

N
navigation
methods, 63

O
options and properties, when publishing all artifacts, 31

P
paging through intersections, 64
Percent calculation, 105
Percent Difference from Average calculation, 106
Percent of Difference calculation, 106
Percent of Member calculation, 106
Percent of Total calculation, 106
permissions, setting access permissions, 28
personal variables
creating, 60
pins
options for, 70
Point of View
overview, 17, 60
preferences
Web Analysis, 13
priority, set, 37
properties
versions, 37
versions, viewing or modifying, 36
publishing
about, 21
add to Exceptions Dashboard, 34
auto-delete, 34
content, 22
hide artifact, 33
HTML files, 22
multiple files, 22, 23

Q
queries
  building OLAP queries with Cube Navigator, 47
  defining with Cube Navigator, 47
  Dynamic Time Series definitions for, 61

R
Rank Ascending calculation, 107
Rank Descending calculation, 107
related content
  cell text, 120
  definitions, 72
relational data
  access, 124
relational drill-through
  overview, 116
replacing
  BQY jobs and OCE files, 35
  buttons, 35
reports
  changing display types for, 68
  drilling to detail, 65
Restrict Data analysis tool, 79
  editing definitions, 81
Retrieve Only Top/Bottom analysis tool, 81

S
Secure jobs, security tags, 33
selected members, hiding by, 73
selecting
  colors, 101
  dimension members, 48
Selecting Dimension Members, 48
setting
  access permissions, 28
  alias tables, 15
show, latest version, 37
Show/Hide Only analysis tool
  creating definitions, 74
  editing definitions, 76
  overview, 73
Show/Hide Only dialog box, 74
sizing columns, 85, 94
SmartCuts
  defined and location, 32
  Sorting analysis tool, 78
  sorting dimension headers, 90
  substitution variables
    Dynamic Time Series, 61
    syntax, 60
    using, 59
  Subtract calculation, 107
  Sum calculation, 107, 108

T
time selections, 61
traffic lighting
  Traffic Lighting dialog box, 76
  Traffic Lighting analysis tool
    overview, 76
  Trend calculation, 108

U
unlinking coordinated components, 127
user interface
  active preference, 13
  user preferences
    Databases user preferences, 14

V
Variance calculation, 108
Variance Percent calculation, 108
versions
  adding, 36
  flag exception, 37
  setting priority, 37
  showing latest, 37
  working with, 35
viewing
  properties of versions, 36

W
Web Analysis preferences
  databases, 13
  formatting, 13