Oracle® Hyperion Enterprise Performance Management Architect, Fusion Edition

Administrator’s Guide

RELEASE 11.1.1.3
## Contents

**Documentation Accessibility** .......................................................... 19

**Part I. Introduction to Performance Management Architect** ........................ 21

**Chapter 1. Using Performance Management Architect** ................................. 23
  - About Performance Management Architect .................................. 23
  - Performance Management Architect Modules .................................. 24
  - Performance Management Architect Utilities .................................. 26
  - Using ERP Integrator with Performance Management Architect .......... 27
  - Architecture ........................................................................... 27
  - Process Overview .................................................................. 28
  - Accessing Performance Management Architect ........................... 29
  - Security ............................................................... 30
  - EPM System Lifecycle Management ........................................... 32
  - Navigating Performance Management Architect ........................... 33
    - Toolbars .......................................................... 33
    - Menus ........................................................................ 34
  - Moving Classic Applications to Performance Management Architect .... 37

**Chapter 2. Administering Performance Management Architect Servers** ............. 39
  - Performance Management Architect Services ................................. 39
  - Starting and Stopping Performance Management Architect Dimension Server ........................................... 40
  - Starting and Stopping Performance Management Architect Application Server ........................................... 41
  - Starting and Stopping Performance Management Architect Data Synchronizer Server ........................................... 41

**Part II. Managing Application Metadata** .................................................. 43

**Chapter 3. Importing Metadata** ........................................................... 45
  - Creating Flat Files ............................................................. 47
  - Flat File Encoding ............................................................. 47
  - Flat File Syntax ................................................................... 47
  - Dimensions Section ........................................................... 48
  - Dimension Associations Section ............................................ 49
Chapter 4. Working with Dimensions  ....................................................  73
Creating Dimensions ..................................................  73
Understanding Shared and Local Dimensions .................................  74
Modifying Properties ..................................................  75
Considerations for Working with Planning Dimensions .........................  76
  Additional Planning Dimension Features ........................................  77
Alias Dimensions .....................................................  78
User-Defined Attribute Dimensions ........................................  80
Custom Dimensions ...................................................  81
Dimension Associations ................................................  81
  Creating Dimension Associations ........................................  81
  Viewing and Deleting Dimension Associations .............................  82
Copying Dimensions ...................................................  83
Viewing Application Membership ...............................................  84
Organizing Dimensions ...................................................  85
  Creating Folders ...................................................  85
  Adding Dimensions to Folders .........................................  85
  Renaming Folders ..................................................  86
  Deleting Folders ...................................................  86
Filtering Dimensions ...................................................  87
-sorting Dimensions and Folders ........................................  88
Deleting Dimensions ...................................................  89
Chapter 5. Working with Members

Creating Members ................................................... 117
Working with Shared Members .......................................... 118
Creating Shared Members by Copying and Pasting ......................... 118
Creating Shared Members Using the Member Selector ...................... 119
Shared Members within Planning Applications ............................. 121
Setting up Dynamic Time Series Members .............................. 122
Renaming Members .................................................... 124
Removing and Deleting Members ........................................ 125
Removing Members ..................................................... 125
Deleting Members ...................................................... 125
Excluding and Deleting Planning Members ................................ 126
Finding Members ....................................................... 126
Reordering Children Members .......................................... 129
Managing Orphan Members ........................................... 129
Viewing Orphan Members ............................................. 130
Deleting Orphan Members ............................................. 130
Editing Property Values ................................................ 130
Finding Properties ..................................................... 131
Working with User-Defined Attributes .................................... 132
Creating Associations .................................................. 133
Creating User-Defined Attributes ....................................... 133
Chapter 6. Building Applications ............................................................. 143

About Applications .................................................................................. 143
Workflow for Creating Applications ...................................................... 143
  Manual Workflow ............................................................................... 144
  Application Wizard Workflow ............................................................ 144
Prerequisites .......................................................................................... 144
Creating Consolidation Applications ...................................................... 145
  Selecting the Application Type .......................................................... 145
  Selecting Dimensions ....................................................................... 146
  Modifying the Application Settings .................................................. 151
Creating Planning Applications .............................................................. 153
  Selecting the Application Type .......................................................... 154
  Selecting Dimensions ....................................................................... 157
  Modifying the Application Settings .................................................. 160
  Validating and Deploying ................................................................. 165
Creating Profitability and Cost Management Applications ....................... 166
  Selecting the Application Type .......................................................... 166
  Selecting Dimensions ....................................................................... 167
  Modifying the Application Settings .................................................. 171
  Validating and Deploying ................................................................. 175
Creating Essbase Applications ................................................................. 176
  Application Requirements ................................................................. 177
Creating Generic Applications ............................................................... 178
Common Application Tasks ..................................................................... 179
  Including Dimensions in Applications .............................................. 179
  Importing Dimensions into Applications ........................................ 183
  Removing Dimensions .................................................................... 183
  Viewing Dimension Associations ...................................................... 183
Chapter 7. Managing Applications

Navigating the Application Library ........................................ 187
Modifying the Application Library View ................................... 188
Organizing Applications ..................................................... 188
Refreshing the Application Library ......................................... 191
Editing Applications .......................................................... 191
Opening Applications ......................................................... 191
Closing Applications .......................................................... 192
Deleting Applications .......................................................... 192
Duplicating Applications ....................................................... 192
  Duplicating Applications as New Applications ......................... 193
  Duplicating Consolidation Applications as Deployed Applications 193
Finding Applications .......................................................... 194
Reregistering Applications ................................................... 195
Comparing Applications ........................................................ 195
  Navigating the Compare Results ......................................... 196
  Excluding Members in the Compare Results .......................... 198
Viewing the Data Flow ......................................................... 198
  Changing the Focal Application in the Data Flow ..................... 199
Viewing Synchronizations ..................................................... 199
Editing Synchronizations ....................................................... 200
Validating and Executing Synchronizations .............................. 200
Editing Applications ........................................................... 200
Validating and Deploying Applications .................................... 200
Validating Applications ....................................................... 201
Reviewing Deployment Logs for Errors .................................... 202
Deploying Planning Applications .......................................... 202
Deploying Consolidation Applications .................................... 205
Deploying Profitability Applications ....................................... 207
Deploying Essbase (ASO) and Essbase (BSO) Applications ............ 208
Redeploying Applications ..................................................... 210
Troubleshooting Application Problems .................................... 211
Viewing Orphaned Applications ............................................ 212
Running Application Diagnostics .......................................... 212
Application Tests .............................................................. 213
Example: Test Failed—Deployed but Missing from Shared Services 217
Chapter 11. Using Components to Design Business Rules and Templates

About Calculation Manager Components .......................................................... 315
Working with Formula Components .................................................................. 316
   About Formula Components ........................................................................... 316
   Creating a Formula Component ..................................................................... 316
   Designing a Formula Component .................................................................. 317
   Opening a Formula Component .................................................................... 324
   Editing a Formula Component ..................................................................... 325
   Deleting a Formula Component .................................................................... 326
   Copying and Pasting a Formula Component .................................................. 326
Working with Script Components ...................................................................... 327
   Creating a Script Component ......................................................................... 327
   Designing a Script Component ....................................................................... 328
   Opening a Script Component ......................................................................... 330
   Editing a Script Component ......................................................................... 330
   Deleting a Script Component ........................................................................ 331
   Copying and Pasting a Script Component ...................................................... 332
Working with Condition Components ................................................................ 332
   About Condition Components ....................................................................... 333
   Creating a Condition Component ................................................................... 333
   Opening a Condition Component ................................................................... 334
   Editing a Condition Component .................................................................... 335
   Deleting a Condition Component ................................................................... 335
   Copying and Pasting a Condition Component ................................................ 336
Working with Member Range Components ...................................................... 337
   About Member Range Components ................................................................ 337
   Creating a Member Range Component ........................................................... 337
   Opening a Member Range Component ............................................................ 339
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing the Library Job Console View</td>
<td>465</td>
</tr>
<tr>
<td>Refreshing the Library Job Console</td>
<td>466</td>
</tr>
<tr>
<td>Creating Job Filters</td>
<td>466</td>
</tr>
<tr>
<td>Security</td>
<td>468</td>
</tr>
<tr>
<td>Viewing Job Attachments</td>
<td>469</td>
</tr>
<tr>
<td>Viewing Import Results</td>
<td>470</td>
</tr>
<tr>
<td>Viewing Text Files</td>
<td>470</td>
</tr>
<tr>
<td>Deleting Jobs</td>
<td>471</td>
</tr>
<tr>
<td>Chapter 19. Using Task Automation</td>
<td>473</td>
</tr>
<tr>
<td>Overview</td>
<td>473</td>
</tr>
<tr>
<td>Prerequisites for Task Automation</td>
<td>474</td>
</tr>
<tr>
<td>Managing Taskflows</td>
<td>474</td>
</tr>
<tr>
<td>Creating Taskflows</td>
<td>475</td>
</tr>
<tr>
<td>Performance Management Architect Actions</td>
<td>475</td>
</tr>
<tr>
<td>Adding Stages</td>
<td>478</td>
</tr>
<tr>
<td>Shared Services Stage Actions and Parameters</td>
<td>480</td>
</tr>
<tr>
<td>Adding Links</td>
<td>480</td>
</tr>
<tr>
<td>Viewing Taskflows</td>
<td>481</td>
</tr>
<tr>
<td>Editing Taskflows</td>
<td>481</td>
</tr>
<tr>
<td>Copying Taskflows</td>
<td>482</td>
</tr>
<tr>
<td>Deleting Taskflows</td>
<td>482</td>
</tr>
<tr>
<td>Running Taskflows Manually</td>
<td>482</td>
</tr>
<tr>
<td>Managing Access Permissions to Taskflows</td>
<td>483</td>
</tr>
<tr>
<td>Assigning Access Permissions to Taskflows</td>
<td>484</td>
</tr>
<tr>
<td>Editing Permissions to Taskflows</td>
<td>484</td>
</tr>
<tr>
<td>Deleting Permissions to Taskflows</td>
<td>485</td>
</tr>
<tr>
<td>Viewing Taskflow Status</td>
<td>485</td>
</tr>
<tr>
<td>Stopping Active Taskflows</td>
<td>487</td>
</tr>
<tr>
<td>Viewing the Taskflow Participant Summary</td>
<td>487</td>
</tr>
<tr>
<td>Viewing the Taskflow Participant Details</td>
<td>488</td>
</tr>
<tr>
<td>Appendix A. Working with Financial Management Dimensions</td>
<td>489</td>
</tr>
<tr>
<td>Account</td>
<td>490</td>
</tr>
<tr>
<td>Account Type Behavior</td>
<td>493</td>
</tr>
<tr>
<td>Defining Dynamic Accounts</td>
<td>495</td>
</tr>
<tr>
<td>Custom</td>
<td>495</td>
</tr>
<tr>
<td>Entity</td>
<td>497</td>
</tr>
<tr>
<td>Scenario</td>
<td>499</td>
</tr>
<tr>
<td>Application</td>
<td>501</td>
</tr>
</tbody>
</table>
Organization by Period ................................................  504
Consolidation Method ................................................  505
   Using Consolidation Methods ........................................  506
   Assigning Consolidation Methods Manually ......................  507
Currency ..........................................................  508
System-Generated Accounts ............................................  509
   Consolidation Accounts ............................................  509
   Ownership Accounts ...............................................  510
Setting Up Intercompany Partners ....................................  511
   Editing System-Generated Value Members .............................  512
Metadata Filtering Based on Security ................................  512
Metadata Referential Integrity .......................................  513
   Metadata Property Changes That Affect Referential Integrity .......  513
   Metadata Log File Referential Integrity Errors ....................  514
Dimension Naming Restrictions .....................................  514
Using Consolidation Flat Files Created in 9.3.1 .....................  515
Working with Financial Management 9.3.1 and Performance Management Architect .......  515

Appendix B. Working with Planning Dimensions ..........................  517
Properties Applicable to All Planning Dimensions ....................  517
Properties Common to Multiple Planning Dimensions .................  519
Account ...........................................................  522
   Valid Combinations of Account Types and Dependent Properties ....  524
   Time Balance Property Examples ..................................  524
Currency ..........................................................  525
Entity .............................................................  528
Period ............................................................  529
   Considerations for Alternate Hierarchies in Period Dimensions ....  530
Scenario ...........................................................  530
Version ...........................................................  531
Year ..............................................................  532
Custom Dimensions ..................................................  533
Planning Aliases .....................................................  533
Planning Attributes ...................................................  534
Planning UDAs ......................................................  534
Working with Planning 9.3.1 and Performance Management Architect .......  534
Considerations for Working with Essbase ................................  534
Naming Restrictions for Applications (Essbase) .........................  536
Naming Restrictions for Dimensions, Members, and Aliases ............  537
Working with Planning Flat Files ........................................ 538
Using Flat Files Created in Release 9.3.1 ................................. 538
Using Flat Files Created in Planning 9.3.0.1 .............................. 541
Sample Planning Flat Files (Regular) ................................... 541
Sample Planning Flat Files (Simple) .................................... 546

**Appendix C. Working with Profitability and Cost Management Properties** ........................................ 551
Dimension and Member Properties ....................................... 551

**Appendix D. Working with Essbase Properties** ............................................. 557
Application Properties ................................................ 557
Dimension and Member Properties ....................................... 561

**Appendix E. Working with Statistical and System Properties** ................................... 569

**Appendix F. Application Validations** .................................................... 571

**Appendix G. Member Query Functions Used by the Data Synchronizer** ................. 575
Using Member Query Functions ......................................... 575
Special Considerations ............................................... 576
Syntax ........................................................................ 577
Examples .................................................................... 577
Parent ....................................................................... 578
Children .................................................................... 578
Ancestors .................................................................... 579
Descendants ........................................................... 580
Siblings ...................................................................... 580
Member ...................................................................... 581
Match ........................................................................ 582
AllMembers ........................................................... 582
BottomOfHierarchy ................................................... 583
TopOfHierarchy ........................................................... 583
Level0 ....................................................................... 584

**Appendix H. Configuration Settings in the BPMA_Server_Config.xml File** ....................... 585

**Appendix I. Accessibility** ............................................................ 591
Screen Reader and Magnifier Standards .................................... 591
Setting Preferences for JAWS ............................................... 591
Enabling Screen Reader Support for Calculation Manager ............... 592
Setting High-Contrast Mode ............................................... 592
Using the Tab Key in the Calculation Manager User Interface ............... 593
Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at http://www.oracle.com/accessibility/.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Access to Oracle Support for Hearing-Impaired Customers

Oracle customers have access to electronic support through My Oracle Support or by calling Oracle Support at 1.800.223.1711. Hearing-impaired customers in the U.S. who wish to speak to an Oracle Support representative may use a telecommunications relay service (TRS). Information about the TRS is available at http://www.fcc.gov/cgb/consumerfacts/trs.html/, and a list of telephone numbers is available at http://www.fcc.gov/cgb/dro/trspn.html. International hearing-impaired customers should use the TRS at +1.605.224.1837. An Oracle Support engineer will respond to technical issues according to the standard service request process.
In Introduction to Performance Management Architect:

- Using Performance Management Architect
- Administering Performance Management Architect Servers
About Performance Management Architect


Creation and deployment:

- Create applications by dragging and dropping
- Design applications graphically, within one environment
- Create subject-specific applications that use existing artifacts
- Configure dimensions and define properties from predefined, sample libraries
- Create filters to select specified members of a dimension. For example, select the Balance Sheet accounts of the Account dimension. This enables you to have one dimension to maintain but not use the full dimension in all applications.
- Duplicate applications for testing or what-if analyses
- Upgrade applications from previous releases to place them in the Dimension Library and Application Library. This ensures that you are ready to get started with the functionality within Performance Management Architect
Calculating business rules for applications:

Hyperion Calculation Manager enables you to create, validate, and deploy sophisticated calculations to solve Financial Management and Planning business problems. You can use Calculation Manager to create any of these calculations:

- Allocating costs among entities
- Performing revenue modeling
- Performing expense modeling
- Preparing a balance sheet
- Calculating cash flow
- Calculating currency translation adjustments
- Calculating group and minority interest
- Calculating deferred taxes

Management:

- Visually link and manage applications
- Use dimensions and attributes across multiple applications. (For example, you can create one Account dimension and use it in multiple applications.) Performance Management Architect leverages existing applications and dimensionality to spin off other applications with previously constructed dimensions.
- Graphically manage data flows
- Perform impact analysis—graphically view and model relationships across applications
- Handle and evaluate the impact of exceptions and changes to all models
- Eliminate manual dimensional and data reconciliation between applications

This guide describes administration features introduced in Performance Management Architect. For information on Classic Application Administration features (for applications not being managed using Performance Management Architect), see the Oracle Hyperion Planning Administrator’s Guide or the Oracle Hyperion Financial Management Administrator’s Guide.

**Performance Management Architect Modules**

Performance Management Architect has the following modules:

- **Dimension Library**—A centralized location to manage dimensions and dimension properties. You can use the Dimension Library to:
  - Create dimension import profiles—enabling dimension updates from flat files and relational database interface tables
  - Add, delete, and modify dimension members in the Shared Library or directly in applications
Modify dimension and member properties in the Shared Library or directly in applications

**Application Library**—A summary of applications that have been created and/or deployed to Financial Management, Planning, Profitability and Cost Management, Essbase Aggregate Storage Option (ASO), or Essbase Block Storage Option (BSO). Applications contain dimensions and dimension attributes that are designed to meet specific requirements for Financial Management, Planning, Profitability and Cost Management, and Essbase (ASO) and (BSO) needs. You can use the Application Library to:

- Create Financial Management, Planning, Profitability and Cost Management, Essbase (ASO), or Essbase (BSO) applications based on Financial Management, Planning, and Profitability and Cost Management applications
- Manage applications in one centralized location
- View the data flow between applications
- Migrate applications to different servers as long as the servers are registered in the same Oracle's Hyperion® Shared Services instance
- Deploy applications to Financial Management, Planning, Profitability and Cost Management, Essbase (ASO), or Essbase (BSO)

**Calculation Manager**—Enables you to create, validate, and deploy business rules and business rule sets. (You launch business rules from within Financial Management and Planning.)

There are three types of objects that can be calculated in Calculation Manager:

- Components, which are objects that comprise business rules and contain formulas, scripts, conditions, ranges, fixed loops, functions, members, and variables.
- Rules, which are objects that contain groups of components that perform calculations
- Rule Sets, which are objects that contain two or more rules that are calculated simultaneously or sequentially.

Calculation Manager has system templates (such as, a template that copies data from one location to another and a template that allocates data from one level in the database outline to other levels) that you can use in business rules. You can also create templates to perform calculations that solve problems unique to your business.

**Data Synchronization**—Enables data synchronization between or within Hyperion applications. You can use the Data Synchronizer to:

- Create data synchronizations between Financial Management, Planning, Profitability and Cost Management, Essbase (ASO), and Essbase (BSO) as destinations, and the following sources:
  - Financial Management
  - Planning
  - Profitability and Cost Management
  - Essbase BSO
For example, an administrator can synchronize data between two Financial Management applications; two Planning applications, and between one Financial Management and a Planning application.

- Create data mappings for reuse
- Create flat file and interface table mappings to import data into Hyperion applications

- **Application Upgrade**—Enables upgrades from previous Financial Management and Planning releases
- **Library Job Console**—Provides a summary, including status, of Dimension Library and application activities, including imports, deployments, and data synchronizations

### Performance Management Architect Utilities

You can use the following utilities with Performance Management Architect:

- **Performance Management Architect Batch Client**
  
  Performance Management Architect Batch Client enables you to combine processes such as data export, metadata loads, data loads, and calculations and kickoff these operations during your normal nightly or weekly load process.
  
  The batch client enables you to kickoff processes using external scheduling tools. You can use the batch client to perform many tasks, including:
  
  - Load metadata into Performance Management Architect
  - Update security related properties on dimensions and measures
  - Load data to applications

  The batch client is automatically installed when you install Performance Management Architect. For detailed information on using the batch client, see the *Oracle Hyperion Enterprise Performance Management Architect Batch Client User’s Guide*.

- **Performance Management Architect File Generator**
  
  The Performance Management Architect File Generator enables you to create import files from the following sources:
  
  - Existing Financial Management files such as .PER, .SEC and .XML metadata files.

  **Note:** Only Financial Management .XML format metadata files are supported. The .APP format is not directly supported but users can extract metadata from the system in the XML format to use the converter.
  
  - Existing Financial Management applications — Version 11.1.1 or later
  - Existing Planning applications — Version 11.1.1 or later
- Existing Performance Management Architect applications (Consolidation, Planning, and Generic application types) — Version 11.1.1 or later
- Microsoft Excel files

To install Performance Management Architect File Generator, use the Oracle Hyperion Enterprise Performance Management System Installer, Fusion Edition. For installation information, see the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide. For detailed information on using the file generator, see the Oracle Hyperion Enterprise Performance Management Architect File Generator User’s Guide.

**Using ERP Integrator with Performance Management Architect**

Oracle Hyperion Financial Data Quality Management ERP Integration Adapter for Oracle Applications is a module of Oracle Hyperion Financial Data Quality Management, Fusion Edition that enables you to:

- Integrate metadata and data from an Enterprise Resource Planning (ERP) source system into an Enterprise Performance Management (EPM) target application created in Performance Management Architect.
- Drill through from the EPM target application and view data in the ERP source system.

For information on how to use ERP Integrator, see the Hyperion Financial Data Quality Management ERP Integration Adapter for Oracle Applications Administrator’s Guide.

**Architecture**

Performance Management Architect provides an interface to various sources for metadata and data including Enterprise Resource Planning systems, relational databases, and data warehouses. Data (dimensional hierarchies as well as data) from these sources can be imported into the system via flat files or Hyperion interface tables.
Note: This functional diagram does not represent the number of servers needed for a deployment.

Performance Management Architect provides a direct interface to Financial Management, Profitability and Cost Management, and Planning applications enabling the creation, maintenance, and synchronization of these applications directly from Performance Management Architect.

The middle tier of Performance Management Architect includes the required application services for application construction, metadata management, data synchronization, and surfacing the user interface.


**Process Overview**

At a high-level, follow this process:

- Import dimensions using the Dimension Library. See Chapter 3, “Importing Metadata.”
- Create applications. See Chapter 6, “Building Applications.”
- Use Calculation Manager to create business rules.
- Deploy applications to a Hyperion product, such as Profitability and Cost Management, Planning, or Financial Management. The Hyperion product creates the application and the product server loads the metadata. See “Validating and Deploying” on page 152.
- Use Shared Services and assign access permissions. See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.
Use your Hyperion products to load data forms into the application. See the *Oracle Hyperion Planning Administrator’s Guide* and *Oracle Hyperion Financial Management Administrator’s Guide*.

Use your Hyperion products to create data forms, reports, plans, task lists, and so on.

## Accessing Performance Management Architect

To access Performance Management Architect:

1. Ensure that Shared Services and EPM Workspace Server are running.
2. Ensure that IIS is running.
3. Start the Dimension server by doing one of the following:
   - From the Services panel, start **Hyperion EPM Architect Process Manager**.
   
   **Note:** Starting the EPM Architect Process Manager service automatically starts these services: Hyperion EPM Architect – Engine Manager, Hyperion EPM Architect – Event Manager, and Hyperion EPM Architect – Job Manager.

   - Select **Start**, **Programs**, **Oracle EPM System**, **Foundation Services**, **Performance Management Architect**, **Start Dimension Server**.
   
   **Note:** If you have difficulty starting the Dimension server, you might need to change the timeout setting. See “Starting and Stopping Performance Management Architect Dimension Server” on page 40.

4. Start the EPM Architect application server by doing one of the following:
   - From the Services panel, start **Hyperion EPM Architect – Web Application**.
   
   - Select **Start**, **Programs**, **Oracle EPM System**, **Foundation Services**, **Performance Management Architect**, **Start Performance Management Architect Web**.

5. Open your Web browser and access Performance Management Architect through EPM Workspace (http://<Web Server>:<port>/workspace/) where `<Web Server>` is the Web server machine host name and `<port>` is the Web server listen port; for example, 19000 if using the Apache instance configured with Oracle’s Hyperion Reporting and Analysis.

6. Enter your user name and password and click **Log On**.

   **Note:** If an error message indicates that Performance Management Architect is unable to authenticate the user, verify the following: ensure that the user is provisioned for the application (if not, use Shared Services to provision the user), the user’s token or session might have timed out (in this case, log off, then log back on to start a new session), or there could be a problem with the Financial Management Web Server or Application Server (in this case, contact your system administrator).
If you have difficulty accessing Performance Management Architect, see the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*.

7. To access the Dimension Library, select **Navigate, Administer, Dimension Library**.

## Security

Performance Management Architect supports these roles:

<table>
<thead>
<tr>
<th>Performance Management Architect Roles</th>
<th>Tasks per Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Creator</td>
<td>Create applications and change dimensions to which you have access permissions. When an Application Creator deploys an application from Performance Management Architect, you automatically become the application administrator.</td>
</tr>
<tr>
<td>Planning Application Creator</td>
<td></td>
</tr>
<tr>
<td>Financial Application Creator</td>
<td></td>
</tr>
<tr>
<td>Profitability Application Creator</td>
<td></td>
</tr>
<tr>
<td>Essbase Application Creator</td>
<td></td>
</tr>
<tr>
<td>Dimension Editor</td>
<td>Can import, delete, create, and change dimensions and dimension members. Can also assign access permissions (Dimension Owner and Readers/Writers) to the dimension. Cannot create applications.</td>
</tr>
<tr>
<td>Create Integrations</td>
<td>Create and execute data synchronizations.</td>
</tr>
<tr>
<td>Run Integrations</td>
<td>Execute data synchronizations.</td>
</tr>
<tr>
<td>Calculation Manager Administrator</td>
<td>Administers and manages Calculation Manager functions.</td>
</tr>
<tr>
<td>Financial Management Calculation Manager Administrator</td>
<td>Administers Calculation Manager functions in Financial Management</td>
</tr>
<tr>
<td>Planning Calculation Manager Administrator</td>
<td>Administers Calculation Manager functions in Planning</td>
</tr>
</tbody>
</table>

The following table shows how Performance Management Architect roles map to levels of access.

<p>| Table 1  Levels of Access |
|----------|--------------------------|</p>
<table>
<thead>
<tr>
<th>Role</th>
<th>Levels of Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension Editor¹</td>
<td>• Dimension Owner for any shared dimension in the Shared Library</td>
</tr>
<tr>
<td></td>
<td>• Can be explicitly assigned Dimension Owner, Dimension Writer, or Dimension Reader access to any local dimension in the Shared Library</td>
</tr>
<tr>
<td>Application Creators²</td>
<td>• Dimension Owner for all dimensions in undeployed applications</td>
</tr>
<tr>
<td></td>
<td>• Can be explicitly assigned Dimension Owner, Dimension Writer, or Dimension Reader access to any dimension in the Shared Library</td>
</tr>
<tr>
<td>Application Administrators³</td>
<td>• Dimension owner for all dimensions in deployed applications</td>
</tr>
<tr>
<td></td>
<td>• Can be explicitly assigned Dimension Owner, Dimension Writer, or Dimension Reader access to any dimension in the Shared Library</td>
</tr>
<tr>
<td>Role</td>
<td>Levels of Access</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Calculation Manager Administrator</td>
<td>Dimension reader for all dimensions of appropriate application types</td>
</tr>
</tbody>
</table>

1 Only Dimension Editors can create dimensions in the Shared Library.
2 Only Application Creators or Application Administrators can create or add dimensions to an application.
3 Only Application Creators or Application Administrators can create or add dimensions to an application.

The following table describes common tasks performed in Performance Management Architect and required levels of access. Be aware of the following considerations:

- You can only edit structure for local dimensions within applications or for shared dimensions within the Shared Library.
- You can only copy dimensions if your role also allows you to create dimensions in the target of the copy.
- You can only synchronize dimensions if you have at least reader access to the source dimension and writer access to the target dimension.
- You can only add dimensions to applications if you are an Application Creator or Application Administrator role.

### Table 2 Common Tasks

<table>
<thead>
<tr>
<th>Level of Access</th>
<th>Dimension Level Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension Owner</td>
<td>● Edit dimension structure or properties</td>
</tr>
<tr>
<td></td>
<td>● Copy dimensions</td>
</tr>
<tr>
<td></td>
<td>● Synchronize dimensions from or to dimensions</td>
</tr>
<tr>
<td></td>
<td>● Add dimensions to applications</td>
</tr>
<tr>
<td></td>
<td>● Remove dimensions</td>
</tr>
<tr>
<td></td>
<td>● Delete dimensions</td>
</tr>
<tr>
<td>Dimension Writer</td>
<td>● Edit dimension structure or properties</td>
</tr>
<tr>
<td></td>
<td>● Copy dimensions</td>
</tr>
<tr>
<td></td>
<td>● Synchronize from or to dimensions</td>
</tr>
<tr>
<td></td>
<td>● Add dimensions to applications</td>
</tr>
<tr>
<td>Dimension Reader</td>
<td>● Copy dimensions</td>
</tr>
<tr>
<td></td>
<td>● Synchronize from dimensions</td>
</tr>
<tr>
<td></td>
<td>● Add dimensions to applications</td>
</tr>
</tbody>
</table>

For additional information on roles, see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

**Scenarios:**

If Bob Smith selects an application in the Application Library and does not have the Application Creator role for that application type or are a provisioned administrator for the application, a dialog box is displayed indicating that Bob Smith does not have access to this application. In addition, the menu items are disabled and the summary information is limited. Consider this example:
Bob Smith selects App2 for which he is not a provisioned administrator and he does not have any creator roles. Upon selecting the application a message is displayed informing him that he has no rights to this application. When Bob Smith right-clicks, all options are disabled.

If an application is not deployed, then all applicable options and summary information is available to users who are creators for that application type (Consolidation, Planning, Essbase (ASO), and Essbase (BSO)). Consider this example:

The Application Library contains five Planning Applications Views (App_6, App7, App8, and App9 (deployed) and App10 (undeployed) and five Consolidation applications (App1, App2, App3, and App4 (deployed) and App5 (undeployed). Bob Smith is a Consolidation Application Creator, Karen Jones is a Planning Application Creator, and Jim Harrington is an Admin for App1. Bob Smith can perform all applicable operations on App5 (deploy, edit, compare, and so on). Karen Smith can also perform all applicable operations on App10 (deploy, edit, compare, and so on).

Any user who is provisioned as an administrator for deployed applications can perform the full set of operations (delete, redeploy, migrate, and so on). Consider this example:

Jim Harrington, the administrator for App1, has full access to App1. Any user who is not a provisioned administrator, but is an application creator has access to all the operations that do not require product specific roles like edit, duplicate, compare, validate, and so on. Operations that require application specific roles will fail (delete, redeploy, and migrate). For example, Bob Smith will be able to edit and compare App1 through App4, but will not be able to delete, redeploy or migrate them.

## EPM System Lifecycle Management

Oracle Hyperion Enterprise Performance Management System Lifecycle Management provides a consistent way for EPM System products to migrate an application, a repository, or individual artifacts across product environments and operating systems. Generally, the Lifecycle Management interface in Oracle's Hyperion® Shared Services Console is consistent for all EPM System products that support Lifecycle Management. However, Oracle Hyperion Enterprise Performance Management System products display different artifact listings and export and import options in the Lifecycle Management interface.

Lifecycle Management features:

- Viewing applications and folders
- Searching for artifacts
- Comparing applications and folders
- Migrating directly from one application to another
- Migrating to and from the file system
- Saving and loading migration definition files
- Viewing selected artifacts
- Auditing migrations
- Viewing the status of migrations
- Importing and exporting individual artifacts for quick changes on the file system

In addition to providing the Lifecycle Management interface in Shared Services Console, there is a command-line utility called Lifecycle Management Utility that provides an alternate way to migrate artifacts from source to destination. The Lifecycle Management Utility can be used with a third-party scheduling service such as Windows Task Scheduler or Oracle Enterprise Manager. Lastly, there is a Lifecycle Management Application Programming Interface (API) that enables users to customize and extend the Lifecycle Management functionality.

**Note:** You must export dimensions from the Shared Dimensions Library to retain the dimensions as SHARED in the destination. Dimensions exported as part of an application results in the dimensions being imported as LOCAL. You should not select shared dimensions from the application if you intend to keep them as SHARED. However, if you want to keep or update the application properties, the application properties should also be selected.

For detailed information about Lifecycle Management, see the *Oracle Hyperion Enterprise Performance Management System Lifecycle Management Guide*.

### Navigating Performance Management Architect

From EPM Workspace access the following from the Navigate menu:

- **Applications**—enables you to access Consolidation (Financial Management), Planning, Essbase (ASO), and Essbase (BSO) applications. Applications are only displayed when a user has the rights and the applications are available.
- **Administer**—enables you to manage users, groups, user preferences, roles, and authentication methods. In addition, Administer enables you to access these Performance Management Architect modules:
  - Dimension Library
  - Application Library
  - Data Synchronization
  - Library Job Console
  - Application Upgrade

### Toolbars

The following toolbars are available in Performance Management Architect:

- **Standard toolbar**—Used for common EPM Workspace features.
• Performance Management Architect toolbar—Displays buttons specific to Performance Management Architect.

Table 3  Standard Toolbar Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Home" /></td>
<td>Not Applicable</td>
<td>Displays the default startup option for content area</td>
</tr>
<tr>
<td><img src="image" alt="New" /></td>
<td>File, New, Document</td>
<td>Create documents, such as books, batches, analysis documents, and scheduled batch jobs</td>
</tr>
<tr>
<td><img src="image" alt="Open" /></td>
<td>File, Open, Document</td>
<td>Use repository documents</td>
</tr>
<tr>
<td><img src="image" alt="Explore" /></td>
<td>Navigate, Explore</td>
<td>Display Explore, to display the repository as a file management system</td>
</tr>
<tr>
<td><img src="image" alt="Logoff" /></td>
<td>File, Logoff</td>
<td>End the current session</td>
</tr>
<tr>
<td><img src="image" alt="Help" /></td>
<td>Help, Help on This Topic</td>
<td>Displays help, in a new browser window, for the page displayed in the content area. (Note: to change the text size of the help window, choose View, Text Size.)</td>
</tr>
</tbody>
</table>

Table 4  Performance Management Architect Toolbar Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Refresh" /></td>
<td>View, Refresh</td>
<td>Refreshes the window.</td>
</tr>
<tr>
<td><img src="image" alt="Download" /></td>
<td>View, Download Transaction Logs</td>
<td>Displays the Filter Transaction Log dialog box.¹</td>
</tr>
<tr>
<td><img src="image" alt="Filter" /></td>
<td>View, Filter Dimensions</td>
<td>Displays the Dimension Filtering dialog box.²</td>
</tr>
<tr>
<td><img src="image" alt="Sort" /></td>
<td>View, Sort Dimensions</td>
<td>Displays the Dimension Sorting dialog box.³</td>
</tr>
<tr>
<td><img src="image" alt="Find" /></td>
<td>None</td>
<td>In the Dimension Library, displays the Find Members dialog box. In the Application Library, displays the Find Applications dialog box.</td>
</tr>
</tbody>
</table>

¹Displays in the Dimension Library only.  
²Displays in the Dimension Library only.  
³Displays in the Dimension Library only.

Menus

Performance Management Architect options display in addition to EPM Workspace options. The following sections describe Performance Management Architect options only.
**File Menu**

Table 5  File Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New, Dimension</td>
<td>Creates a dimension(^1)</td>
</tr>
<tr>
<td>New, Application</td>
<td>Launches the application wizard</td>
</tr>
<tr>
<td>New, Folder</td>
<td>Creates a new folder</td>
</tr>
<tr>
<td>Open, Applications</td>
<td>Displays all applications by application type</td>
</tr>
<tr>
<td>Close</td>
<td>Closes the current tab, others (all other tabs open), or all tabs</td>
</tr>
<tr>
<td>Edit Application</td>
<td>Displays a dialog box where you can select the application to edit(^2)</td>
</tr>
<tr>
<td>Import, Create Profile</td>
<td>Creates an import profile.(^3)</td>
</tr>
<tr>
<td>Import, Import Dimensions</td>
<td>Imports dimensions using the Import Dimensions dialog box(^4)</td>
</tr>
<tr>
<td>Import, Clear Interface Area</td>
<td>Clears the interface area(^5)</td>
</tr>
</tbody>
</table>

\(^1\)Displays in the Dimension Library only.
\(^2\)Displays in the Dimension Library only.
\(^3\)Displays in the Dimension Library only.
\(^4\)Displays in the Dimension Library only.
\(^5\)Displays in the Dimension Library only.

**Edit Menu**

You can use the Edit menu to perform tasks relating to setting search and sort criteria in the Dimension Library.

Table 6  Edit Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Finds members by property, name, or alias</td>
</tr>
<tr>
<td>Clear Filter Criteria</td>
<td>Clears an applied filter</td>
</tr>
<tr>
<td>Clear Sort Criteria</td>
<td>Clears an applied sort</td>
</tr>
</tbody>
</table>

**View Menu**

You can use the View menu to display specific panes in Performance Management Architect. These options do not serve as a toggle. To close a pane, use the close button.
### Table 7  View Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM Workspace</td>
<td></td>
</tr>
<tr>
<td>View Pane</td>
<td>Displays the EPM Workspace View pane. To hide the View pane, click Hide (in the middle of the vertical divider or click View, View Pane.)</td>
</tr>
<tr>
<td>Dimension Library</td>
<td></td>
</tr>
<tr>
<td>Show Shared Library</td>
<td>Displays the Shared Library</td>
</tr>
<tr>
<td>Show App</td>
<td>Displays the application pane</td>
</tr>
<tr>
<td>Show Property Grid</td>
<td>Displays the Property Grid</td>
</tr>
<tr>
<td>Show Member List</td>
<td>Displays the Member Find pane</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the display</td>
</tr>
<tr>
<td>Download Transaction Logs</td>
<td>Displays the Filter Transaction Log dialog box</td>
</tr>
<tr>
<td>Member Display</td>
<td>Applicable for Alias dimensions. When you select this option, you must manually refresh. After refreshing changes display for dimensions that are associated with alias dimensions that have a Default Member specified in the System properties.</td>
</tr>
<tr>
<td>Sort Dimensions</td>
<td>Sorts dimensions in ascending or descending order</td>
</tr>
<tr>
<td>Filter Dimensions</td>
<td>Filters dimensions by name, type, or owner</td>
</tr>
<tr>
<td>Data Synchronization, Library Job Console, and Application Library</td>
<td></td>
</tr>
<tr>
<td>Icons</td>
<td>Displays icons and the name of the artifact&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Details</td>
<td>Displays the artifact name, description, and additional details</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the display</td>
</tr>
<tr>
<td>Filter</td>
<td>Displays the Filter dialog box, enabling you to filter what you see</td>
</tr>
<tr>
<td>Clear Filter Criteria</td>
<td>Cleans an applied filter</td>
</tr>
</tbody>
</table>

<sup>1</sup>Displays in Data Synchronization and Application Library only.

### Administration Menu

The Administration menu is displayed when you access Performance Management Architect modules (Dimension Library, Application Library, Library Job Console, or Data Synchronization).

### Table 8  Administration Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Taskflows</td>
<td>Automates tasks that you commonly perform</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>View Taskflow Status</td>
<td>Displays the status of any automated tasks</td>
</tr>
</tbody>
</table>

**Help Menu**

You use the Help menu to access Performance Management Architect online help, Oracle support, the Oracle Technology Network, Oracle website, and information about Performance Management Architect.

**Moving Classic Applications to Performance Management Architect**

To use Performance Management Architect for application administration, you can move applications being managed using Financial Management or Planning Classic Administration.

For information on Classic Application Administration features (for applications not being managed using Performance Management Architect), see the *Oracle Hyperion Planning Administrator’s Guide* or the *Oracle Hyperion Financial Management Administrator’s Guide*.

**Note:** Applications must be upgraded to Release 11.1.1 before they are moved.

If you move an application created in Classic Application Administration to Performance Management Architect, the application cannot return to Classic Application Administration.

**Tasks To Complete Before You Move Applications**

- If you are using flat files created in an earlier release of Planning, see “Using Flat Files Created in Release 9.3.1” on page 538 for information about the updates required for using the flat files in Release 11.1.1.

- Before moving a Classic Planning application to Performance Management Architect, remove any spaces in the names of attribute dimensions. For example, rename an attribute called Extra Small to ExtraSmall

- Before a Classic Planning application is moved to Performance Management Architect, all users must be logged off the application. You can notify users by sending a broadcast message. See the *Oracle Hyperion Planning Administrator’s Guide*.

- To enable support for Performance Management Architect applications, the Financial Management Application Server must have IIS installed. However, the ASP components need not be enabled.

➤ To move upgraded applications to Performance Management Architect:

1. In Workspace, select **Navigate > Administer > Application Upgrade**.

2. Review the Welcome screen, and click **Next**.
The Upgrade Summary page displays the applications to which the user has access to upgrade (this information is provided from the Shared Services server. If an application cannot be upgraded, an explanation is provided.)

3 On the Select Applications page, add applications that you want to upgrade to the Applications to Upgrade list and click Next.

4 Review the summary of applications to upgrade, and click Next to execute the upgrade.

5 Click Finish to view the upgrade process in the Job Console.

6 Open the Application Library to confirm that the applications are in Performance Management Architect.

7 Navigate to Dimension Library, and review the dimensions that were added to Performance Management Architect.

8 Open the application.

**Note:** If the transfer of applications to Performance Management Architect is not successful, you can view detailed information about the transfer in the Import Job log in the Job Console.

**Note:** When a Planning application is moved to Performance Management Architect, the first occurrence of a member in Planning is shared, after the upgrade, the member remains shared, and the hierarchies in Planning and Performance Management Architect are identical.
Performance Management Architect has three servers that must be running:

- Dimension Server
- Performance Management Architect Application Server
- Data Synchronizer Server

Before you start a server, you must ensure that Shared Services, EPM Workspace, IIS, and certain Windows services are running.

**Performance Management Architect Services**

There are five windows service applications and at least one windows console application that run in Performance Management Architect. They must all run on a single server.

<table>
<thead>
<tr>
<th>Performance Management Architect Application</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Manager Windows service</td>
<td>Distributes event messages between the various server applications—the vehicle for inter-application communication.</td>
</tr>
<tr>
<td>Engine Manager Windows service</td>
<td>Starts and stops instances of dimension server engine, as requested by the Process Manager.</td>
</tr>
<tr>
<td>Job Manager Windows service</td>
<td>Manages long-running tasks performed by Performance Management Architect. The jobs run inside of the dimension server engine, but their status and results are managed by this management application.</td>
</tr>
</tbody>
</table>
### Performance Management Architect Application

<table>
<thead>
<tr>
<th>Description</th>
<th>Performance Management Architect Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serves as a bridge between Performance Management Architect server applications and the Shared Services (HSS) Java application.</td>
<td>NetJNIBridge Windows service NetJNIBridge.exe</td>
</tr>
<tr>
<td>Handles all processing of reading/writing of library data. Hosts a proxy layer that fields server requests that come in via an API exposed through web services. Engine instances are managed by the Engine Manager service. The Engine Manager starts and stops engine instances, based on messages received from the Process Manager application.</td>
<td>Dimension Server Engine Windows console application dimension_server.exe</td>
</tr>
</tbody>
</table>

All but one of the Windows service applications described above are all installed in “manual” startup mode so they will not run automatically if the host server restarts. These services should also never be started manually. Rather, the Process Manager application is installed in “automatic” startup mode and will start and stop the “manual” services, as needed, and as configured in the BPMAServerConfig.xml file.

**Note:** If you change the administrator password for the Shared Services administrator user (not the user for the Shared Services database), the Performance Management Architect Process Manager service will not run. You must re-run the Configure Database task for Performance Management Architect and restart the Process Manager service. Also, if you change the Performance Management Architect database user or password, you must re-run the Configure Database task and enter the Performance Management Architect database user and password. After re-configuring, restart the Process Manager service.

### Starting and Stopping Performance Management Architect Dimension Server

You can start and stop the Performance Management Architect Dimension server from the Start menu or through the Services panel.

- To start or stop the Dimension server:
  Do one of the following:
  - Select **Start, Programs, Oracle EPM System, Foundation Services, Performance Management Architect, Start Dimension Server** or **Stop Dimension Server**.
  - From the Services panel, start **Hyperion EPM Architect Process Manager**.

- To increase the timeout setting for startup of Dimension server:
  If you experience a problem with starting the service for the Dimension server (Hyperion EPM Architect – Process Manager), you can change the timeout setting. The default timeout setting for startup of the Dimension server is 180 seconds.
1. Open BPMA_Server_Config.xml. This file is located in Hyperion\products \Foundation\BPMA\AppServer\DimensionServer\ServerEngine\bin.

2. Search for DimensionServerStartupTimeout under Config, ProcessManager and change the value of the timeout (in seconds).

For information on all BPMA_Server_Config.xml settings, see Appendix H, “Configuration Settings in the BPMA_Server_Config.xml File.”

Starting and Stopping Performance Management Architect Application Server

You can start and stop the Performance Management Architect Application Server from the Services panel, the Start menu or by using a command. The location of the command depends on which Java application server you are using.

To start or stop the EPM Architect application server:

Do one of the following:

- From the Services panel, start Hyperion EPM Architect Web Application.

On the computer hosting your Java application server, locate the start or stop server command.

<table>
<thead>
<tr>
<th>If you are using</th>
<th>Go to the following directory (for example)</th>
<th>Execute This Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomcat 5</td>
<td>\Hyperion\deployments\AppServerNameVersion\bin</td>
<td>Double-click startEPMAWebTier.bat or stopEPMAWebTier.bat</td>
</tr>
<tr>
<td>WebLogic 9</td>
<td>\Hyperion\products\Foundation\BPMA\AppServer\InstalledApps\WebLogic\version\BPMAWebServer\bin</td>
<td>Double-click startEPMAWebTier.bat or stopEPMAWebTier.bat</td>
</tr>
<tr>
<td>WebSphere 6</td>
<td>&lt;drive letter&gt;:\Hyperion\products\Foundation\BPMA\AppServer\InstalledApps\WebLogic\version\BPMAWebServer\bin</td>
<td>Double-click startEPMAWebTier.bat or stopEPMAWebTier.bat</td>
</tr>
</tbody>
</table>

Starting and Stopping Performance Management Architect Data Synchronizer Server

The Data Synchronizer server must be started to use data movement capabilities of Performance Management Architect. However, it is not needed to log into EPM Workspace.

You can start and stop the Performance Management Architect Data Synchronizer server from the Services panel, the Start menu, or by using a command. The location of the command depends on which Java application server you are using.
To start or stop the EPM Architect Data Synchronizer server:

Do one of the following:

- From the Services panel, start **Hyperion EPM Architect Data Synchronization – Web Application**.
- Select **Start, Programs, Oracle EPM System, Foundation Services, Performance Management Architect, Start (Stop) Data Synchronizer**.
- On the computer hosting your Java application server, locate the start or stop server command.

**Table 11  Location Example for StartEPMAWebServer and StopEPMAWeb Server Commands**

<table>
<thead>
<tr>
<th>If you are using:</th>
<th>Go to the following directory (for example)</th>
<th>Execute This Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomcat 5</td>
<td><code>&lt;drive letter&gt;:\Hyperion\deployments \&lt;AppServerNameVersion&gt;\bin</code></td>
<td>Double-click <code>startEPMADataSynchronizer.bat</code> or <code>stopEPMADataSynchronizer.bat</code></td>
</tr>
<tr>
<td>WebLogic 9</td>
<td><code>&lt;drive letter&gt;:\Hyperion\deployments \&lt;AppServerNameVersion&gt;\bin</code></td>
<td>Double-click <code>startEPMADataSynchronizer.bat</code> or <code>stopEPMADataSynchronizer.bat</code></td>
</tr>
<tr>
<td>WebSphere 6</td>
<td><code>&lt;drive letter&gt;:\Hyperion\deployments \&lt;AppServerNameVersion&gt;\bin</code></td>
<td>Double-click <code>startEPMADataSynchronizer.bat</code> or <code>stopEPMADataSynchronizer.bat</code></td>
</tr>
<tr>
<td>WebLogic 8.1.6</td>
<td><code>&lt;drive letter&gt;:\Hyperion\deployments \&lt;AppServerNameVersion&gt;\bin</code></td>
<td>Double-click <code>startEPMADataSynchronizer.bat</code> or <code>stopEPMADataSynchronizer.bat</code></td>
</tr>
<tr>
<td></td>
<td><code>&lt;drive letter&gt;:\Hyperion\products \Foundation\BPMA\AppServer \InstalledApps\WebLogic\&lt;version&gt; \BPMAWebServer\bin</code></td>
<td>Double-click <code>startEPMADataSynchronizer.bat</code> or <code>stopEPMADataSynchronizer.bat</code></td>
</tr>
</tbody>
</table>
In Managing Application Metadata:

- Importing Metadata
- Working with Dimensions
- Working with Members
- Building Applications
- Managing Applications
The Dimension Library is a central location for Financial Management, Profitability and Cost Management, and Planning administrators to view, create, and manage dimensions and hierarchies.

You can import dimension information (metadata) into the Shared Library or into an individual application by: 1) Creating and importing import flat files or 2) Importing metadata from interface tables.

Caution! To access dimensions in the Dimension Library, you must have the appropriate security credentials. For example, the Dimension Editor security role permits access to all Dimension Library functionality, such as creating, deleting, and changing dimensions and members, creating import profiles, and running transaction logs. Alternatively, dimension level security can also be used to control user access to individual dimensions. See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

The following table describes the dimension types that Performance Management Architect supports. Each dimension type is represented by an icon in the Shared Library.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Account Icon]</td>
<td>Account</td>
<td>Chart of account type information, for example, Net Income and Sales, in applications</td>
</tr>
<tr>
<td>![Alias Icon]</td>
<td>Alias</td>
<td>Defines the set of descriptions or languages for dimension members in Financial Management applications and to create alias tables for Planning, Profitability and Cost Management, and Essbase applications.</td>
</tr>
<tr>
<td>![AllocationType Icon]</td>
<td>AllocationType</td>
<td>Stores direct allocations and allocation genealogy. Required for Profitability applications.</td>
</tr>
<tr>
<td>Icon</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>![Attribute icon]</td>
<td>Attribute</td>
<td>Classifies members in dimensions in Planning and Essbase applications.</td>
</tr>
<tr>
<td>![Consolidation Method icon]</td>
<td>Consolidation Method</td>
<td>Denotes consolidation behavior for Financial Management applications.</td>
</tr>
<tr>
<td>![Country icon]</td>
<td>Country</td>
<td>Tracks business activities in multiple countries in Essbase applications. If you tag dimensions as Country, you can enter the currency name in the Currency text box. Note: This dimension type does not apply to aggregate storage outlines.</td>
</tr>
<tr>
<td>![Currency icon]</td>
<td>Currency</td>
<td>Currencies in multi-currency applications.</td>
</tr>
<tr>
<td>![Entity icon]</td>
<td>Entity</td>
<td>Entity or organizational structures in applications</td>
</tr>
<tr>
<td>![Generic icon]</td>
<td>Generic</td>
<td>Custom dimensions that can be used in all application types.</td>
</tr>
<tr>
<td>![ICP icon]</td>
<td>ICP</td>
<td>Specifies intercompany information, such as ICP Entities, in Financial Management applications. When you include an ICP dimension in a Consolidation application, it is automatically populated with members from the Entity dimension in that application. These members cannot be edited or changed. This dimension must be included in Consolidation applications.</td>
</tr>
<tr>
<td>![Measures icon]</td>
<td>Measures</td>
<td>Required to build, validate and calculate a Profitability and Cost Management model.</td>
</tr>
<tr>
<td>![Period icon]</td>
<td>Period</td>
<td>The period structure for applications, for example month, quarter, and half year.</td>
</tr>
<tr>
<td>![Scenario icon]</td>
<td>Scenario</td>
<td>Scenarios for applications, for example Actual and Budget.</td>
</tr>
<tr>
<td>![Smart List icon]</td>
<td>Smart List</td>
<td>Smart List information in Planning applications.</td>
</tr>
<tr>
<td>![Time icon]</td>
<td>Time</td>
<td>Specifies how often you collect and update data in Essbase applications. You can tag only one dimension in an Essbase outline as Time.</td>
</tr>
<tr>
<td>![UDA icon]</td>
<td>UDA</td>
<td>Specifies user-defined attribute (UDA) information in Planning applications.</td>
</tr>
<tr>
<td>![Value icon]</td>
<td>Value</td>
<td>Corresponds to the Value dimension in Financial Management applications. When you include a Value dimension in a Consolidation application, its currency triplet members are automatically generated based on the members of the Currency dimension in that application. These members cannot be edited or changed. This dimension must be included in Consolidation applications.</td>
</tr>
<tr>
<td>![Version icon]</td>
<td>Version</td>
<td>Version information, such as Version 1 and Final Version in Planning applications.</td>
</tr>
<tr>
<td>![View icon]</td>
<td>View</td>
<td>Corresponds to the View dimension in Financial Management applications. In addition to the system Periodic member this dimension should contain members that correspond to each level in the Period dimension in a particular application. For example, if the Period dimension contains moths, quarters and half years, the View dimension should contain the following members: Periodic, MTD, QTD, HTD, YTD.</td>
</tr>
</tbody>
</table>

46 Importing Metadata
Before you create applications, you need to define some of the dimensions that will be contained in these applications.

➢ To access the Dimension Library, select Navigate, Administer, Dimension Library.

Creating Flat Files

You can import dimensions into the Dimension Library by creating a flat file. Before you create a flat file to import dimensions, see:

- “Flat File Encoding” on page 47
- “Flat File Syntax” on page 47
- “Special Characters in Flat Files” on page 47

Flat File Encoding

Performance Management Architect import supports text files in the ADS format with the following encodings: UTF-8, UTF-16LE, UTF-16BE, UTF-32LE, UTF-32BE. In addition, ASCII encoded files can also be read but are limited to English characters. The files should contain Byte Order Mark to determine which encoding the file has been saved in. If Byte Order Mark is absent, the default is UTF-8.

Flat File Syntax

Flat files contain the following sections, which can be arranged in any order.

- Dimensions—See “Dimensions Section” on page 48.
- Dimension Associations—See “Dimension Associations Section” on page 49.
- Members—See “Members Section” on page 49.
- Hierarchies—See “Hierarchies Section” on page 51.
- Property Array—See “Property Array Section” on page 52.

Special Characters in Flat Files

Exclamation points ( ! ) indicate the beginning of sections. Exclamation points must be followed by valid section names (for example, Dimensions or DimensionAssociations).

Lines that start with apostrophes ( ’ ) define the columns for each section. Each section header line must be followed by a column header/definition line. For example:
True and false values are represented as Y for true and N for false.

Semicolons (;), commas (,), pipes (|), spaces, and tabs are valid field/column delimiters.

**Note:** Import files cannot contain property names with spaces. For example, when specifying a dimension association where the associated dimension is an attribute dimension, the property name specified in the dimension association section must not contain spaces.

**Dimensions Section**

The Dimensions section defines the dimensions to be imported. Dimensions defined in this section that do not already exist in the Shared Library or target application are created during import execution. Dimensions that exist in the Shared Library or target application have the property values defined in this section updated during import execution. In this section, you can define a subset or a full set of all the dimension level properties supported in Performance Management Architect. The property names used in the column header line need not precisely match the dimension property names in Performance Management Architect. You can map the property names in the file to their corresponding Performance Management Architect property names in the import profile.

**Note:** This section is required and must always be present in a flat file.

**Syntax**

```
!Section=Dimensions

'Name|DimensionClass|DimensionAlias|DimensionStorageType|AllowDuplicatesInDimension|
CommentDuplicate|ConsolidationDuplicate|DataStorageDuplicate|DimensionHierarchyType|
DimensionSolveOrder|MemberFormulaDuplicate|MemberSolveOrderDuplicate|SkipValueDuplicate|
TimeBalanceDuplicate|UDADuplicate|TwoPassCalcDuplicate|VarianceReportingDuplicate|
DimDataStorage|DimValidForCapex|DimValidForPlan1|DimValidForPlan2|DimValidForPlan3|
DimValidForWorkforce|EnumOrder1|EnumOrder2|EnumOrder3|EnumOrderCapex|EnumOrderWF|
AttributeType|CurrencyNameDuplicate|customDimensionId|ApplySecurity|DisplayOrder|
GridMissingLabelType|Increment|SmartListLabel|StartValue
```

Example

```
!Section=Dimensions

'Name;DimensionClass;Dimension_Alias
```
**Dimension Associations Section**

This section contains information about the associations between dimensions, for example an association between the account dimension and the security class dimension.

**Note:** If member properties refer to another dimension, this section is required for new dimensions and for dimensions when using replace mode. It is optional for dimensions if using merge mode.

**Syntax**

```
!Section =DimensionAssociations

'BaseDimension; Property; TargetDimension
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BaseDimension</td>
<td>Name of the base dimension whose member property will be associated with another dimension. This is a required column.</td>
</tr>
<tr>
<td>Property</td>
<td>The name of the associated property, for example 'Alias.' This is a required column.</td>
</tr>
<tr>
<td>TargetDimension</td>
<td>Name of the dimension with which the associated property is associated. This is a required column.</td>
</tr>
</tbody>
</table>

**Example**

```
!Section=DimensionAssociations
'B;Property;T
Currency;SecurityClass;MySecurityClassDimension
Scenario;Alias;MyAliasDimension
Account;UDA;MyUDADimension
```

**Members Section**

This section defines dimension members and their member properties. Relationship member properties cannot be defined in this section since they require a parent child relationship. For example, 'AggregationWeight' cannot be defined in the Members section.

Dimension properties are defined in product-specific appendixes:

- Appendix B, “Working with Planning Dimensions”
- Appendix D, “Working with Essbase Properties”
Note: This section is optional. Member property values can also be defined in the Hierarchies and PropertyArray sections of the flat file.

Syntax

\[\text{!Members} = \text{Dimension\_Name}\]

\[\text{Name}; \text{Member\_Property1}; \ldots; \text{Member\_PropertyN}\]

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>\text{Dimension_Name}</td>
<td>Name of dimension whose members are being defined.</td>
</tr>
<tr>
<td>Name</td>
<td>A member name, for example Euro. This is a required column.</td>
</tr>
<tr>
<td>Member_PropertyX</td>
<td>Member-level property name for the respective dimension type. See the product-specific appendixes for property information.</td>
</tr>
</tbody>
</table>

Example

\[\text{!Members} = \text{Currency}\]

\[\text{Name}; \text{Scale}; \text{TranslationOperator}; \text{DisplayInICT}\]

EURO; Whole; ; y
GBR; Whole; ;
USD; Whole; ;

\[\text{!Members} = \text{Scenario}\]

\[\text{Name}; \text{DefaultFrequency}; \text{DefaultView}; \text{ZeroViewForNonAdj}; \ldots; \text{ZeroViewForAdjConsolidateYTD}; \text{MaximumReviewLevel}; \text{UsesLineItems}; \ldots\]

Creating Flat Files

3 EnableProcessManagement; \text{SecurityClass}; \text{EnableDataAudit}; \ldots

DefFreqForICTrans

Actual; MTD; Periodic; Periodic; Periodic; N; Y; N; Y; Y; MTD
Budget; MTD; Periodic; Periodic; Periodic; N; Y; Y; Y; Y; MTD

\[\text{!Members} = \text{Entity}\]

\[\text{Name}; \text{Currency}; \text{AllowAdjs}; \text{AllowAdjFromChildren}; \ldots\]

HoldingCompany; SecurityAsPartner; IsICP; \text{SecurityClass}\n
Entity\_[None]; [None]; N; Y; Y; N; Y; Y; N; Y; Y; Y; Y; \ldots

Regional; USD; Y; N; ; N; CORPORATE
UnitedStates; USD; Y; Y; ; N; US

\[\text{!Members} = \text{Account}\]

\[\text{Name}; \text{ConsolidationAccountType}; \text{IsCalculated}; \ldots\]

IsConsolidated; PlugAccount; Custom1TopMember; Custom2TopMember; \ldots
Custom3TopMember; Custom4TopMember; NumDecimalPlaces; \ldots
EnableCustom1Aggr; EnableCustom2Aggr; EnableCustom3Aggr; \ldots
EnableCustom4Aggr; XBRLEditors; ICPTopMember; IsICP; UsesLineItems; \ldots
SecurityClass; EnableDataAudit; CalcAttribute

Account\_[None]; Revenue; N; N; ; ; ; ; 0; Y; Y; Y; ; N; N; N; N; N; N; N; N; N; N; N;
ExchangeRates; GroupLabel; Y; Y; ; ; ; ; Y; Y; Y; ; N; N; N; N; N; N; N; N; N; N; N;
Plug; Revenue; N; Y; ; ; ; ; 0; Y; Y; Y; ; N; N; N; N; N;
Hierarchies Section

This section defines the dimension members, their member and relationship properties, and hierarchical/parent-child relationships. This section:

- is required for new dimensions and existing dimensions that use the replace method.
- is optional for existing dimensions that use the merge method.
- controls the order of members under a parent. Members of existing dimensions are reordered during replace-mode import execution if all members under a parent are present in the Hierarchies section.

Syntax

```plaintext
!Hierarchies=Dimension_Name
'Parent;Child;Member-Relationship_Property1;...;Member-Relationship_PropertyN
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>Dimension_Name</code></td>
<td>Name of dimension whose members are being defined.</td>
</tr>
<tr>
<td><code>Parent</code></td>
<td>Name of parent member. This is a required column.</td>
</tr>
<tr>
<td><code>Child</code></td>
<td>Name of child member. This is a required column.</td>
</tr>
<tr>
<td><code>Member-Relationship_PropertyX</code></td>
<td>Member-level property or member relationship property name for the respective dimension type. See the product-specific appendixes for member property information.</td>
</tr>
<tr>
<td><code>IsPrimary</code></td>
<td>Optional. Specified whether an instance of a member under a parent is primary or shared. See “Specifying Primary and Shared Instances of a Member using IsPrimary” on page 52.</td>
</tr>
</tbody>
</table>

Example

```plaintext
!Hierarchies=Currency
'Parent;Child
#root;EURO
#root;GBR
#root;USD

!Hierarchies=Scenario
'Parent;Child
#root;Actual
#root;Budget

!Hierarchies=Entity
'Parent;Child
#root;Entity_[None]
#root;Regional
  Regional;UnitedStates
  UnitedStates;California
  California;Sunnyvale
  California;FosterCity
  UnitedStates;Connecticut
  Connecticut;Stamford

!Hierarchies=Account
'Parent;Child
```
#root;Account_[None]
#root;ExchangeRates
ExchangeRates;Rate1
ExchangeRates;Rate2
#root;Plug

**Note:** The token '#root' is used to refer to the top dimension member as the parent. Alternatively, the dimension name can also be used to refer to the top dimension member as the parent.

**Tip:** Properties containing multiple values, like Alias and UDA can be defined in the Hierarchies section.

**Example**

Example of defining the Alias property in the Hierarchies section:

```
!Hierarchies=Entity
'Parent;Child;DefaultParent;Currency;AllowAdj;AllowAdjFromChildren;HoldingCompany;Alias
=English;Alias=French
#root;Entity_[None];Y;[None];N;N;;Entity None Alias;French None Alias
#root;Regional;Y;USD;Y;N;;Regional Operations;Operationes Regionale
```

**Example**

Example of defining the UDA property in the Hierarchies section:

```
!Hierarchies=Plan1Account
'Parent;Child;UDA1;UDA2;UDA3;
111092;HSP_NOLINK;Plan1;Plan3
111093;HSP_NOLINK;Plan3
```

**Specifying Primary and Shared Instances of a Member using IsPrimary**

If a member has multiple instances in a dimension, the IsPrimary column can be used to explicitly specify which instance is the primary one and which instance(s) are shared. This column is optional. If it is not specified, the first instance of the member that gets processed will become the primary instance.

**Note:** If the import data contains the IsPrimary column, then the MergeAsShared flag (check box in the user interface) is ignored when you create an import profile. For information on import profiles, see “Creating Import Profiles” on page 62.

**Property Array Section**

This section can be used to define multi-value and single value properties for members of a dimension.

“Dimension and Member Properties” on page 551, and Appendix D, “Working with Essbase Properties.”

**Note:** This section is optional.

**Syntax**

![PropertyArray=Dimension_Name

`Property;Name;Key;Value;`

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension_Name</td>
<td>Name of dimension whose members are being defined.</td>
</tr>
<tr>
<td>Property</td>
<td>Name of the property that will be modified. This is a required column.</td>
</tr>
<tr>
<td>Name</td>
<td>Name of the member whose property will be modified. This is a required column.</td>
</tr>
<tr>
<td>Key</td>
<td>If Property is:</td>
</tr>
<tr>
<td></td>
<td>UDA—A UDA value. If this is blank all UDAs for this member will be deleted.</td>
</tr>
<tr>
<td></td>
<td>Alias—The alias table name or description name. If this is left blank all alias values for this member will be deleted.</td>
</tr>
<tr>
<td></td>
<td>Other—Should always be blank.</td>
</tr>
<tr>
<td>Value</td>
<td>If Property is:</td>
</tr>
<tr>
<td></td>
<td>UDA—Should always be blank.</td>
</tr>
<tr>
<td></td>
<td>Alias—The alias or description corresponding to the value specified in Key. If left blank, alias value for this member and Key will be deleted.</td>
</tr>
<tr>
<td></td>
<td>Other—Property value.</td>
</tr>
</tbody>
</table>

**Examples**

**Defining Alias Property Values**

![PropertyArray=Currency

`Property;Name;Key;Value
Alias;EURO;English;European Euro
Alias;EURO;French;
Alias;EURO;German;
Alias;EURO;Italian;
Alias;EURO;Japanese;
Alias;GBR;English;Great Britain Pounds
Alias;GBR;French;
Alias;GBR;German;
Alias;GBR;Italian;
Alias;GBR;Japanese;
Alias;USD;English;United Stated Dollars
Alias;USD;French;
Alias;USD;German;
Alias;USD;Italian;
Alias;USD;Japanese;

Deleting an Alias Value (Value is left blank)
Deleting all Alias Values for a Member (Key and Value are left blank)

Deleting all UDA values for a member (Key and Value are left blank)

Defining UDA Property Values

Defining Single-Value Property Values

Performance Management Architect supports single value member properties for dimension imports. It allows a member, property, and value to be entered without a key in either the flat file !PropertyArray section or any of the Property Array interface tables and it is treated as a single-value member property assignment as opposed to an array property. In the interface table, the data would look like:

<table>
<thead>
<tr>
<th>Load ID</th>
<th>Property</th>
<th>Name</th>
<th>Key</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ACCOUNTTYPE</td>
<td>MemberRev</td>
<td></td>
<td>Revenue</td>
</tr>
<tr>
<td>2</td>
<td>ACCOUNTTYPE</td>
<td>MemberExp</td>
<td></td>
<td>Expense</td>
</tr>
</tbody>
</table>

In the flat file, the !PropertyArray section would look like:

The benefit is that if the ACCOUNTTYPE property was not currently part of your imported data, and you want to start assigning it, is not necessary to add an ACCOUNTTYPE column to your HS_*Member or HS_*Hierarchy tables. In the case of flat file imports, it is not necessary to add an ACCOUNTTYPE column to your generated !Members and !Hierarchies sections.
Using Interface Tables

Interface tables allow the import of data and metadata from external systems into Performance Management Architect through a relational database.

1. Move information from an ERP system or general ledger system into ERP Integrator
2. Move information from ERP Integrator into Performance Management Architect interface tables
3. Import metadata from the interface tables into Performance Management Architect.
4. Create Financial Management, Profitability and Cost Management, Planning, and Essbase applications that use the imported metadata

You can configure multiple Performance Management Architect interface table definitions. The database types of Performance Management Architect and the interface tables can differ. For example, the Performance Management Architect database can use SQL Server and the Performance Management Architect interfaces can use Oracle. As a best practice, interface tables should not be configured in the same database tablespace as Performance Management Architect.
Configuring Interface Data Sources

This procedure is required if you want to use interface tables in Performance Management Architect. Interface tables consist of a set of tables and or views that enable the import of metadata and data from external systems into Performance Management Architect. Before importing metadata and data from interface tables, you must run Oracle’s Hyperion Enterprise Performance Management System Configurator and configure Performance Management Architect interface tables. You configure the tables by creating data source links that can be used during profile creation and data synchronization.

See Chapter 3, “Importing Metadata” and Chapter 17, “Synchronizing Data.”

If you plan to use Performance Management Architect with ERP Integrator, the interface data source must be in the ERP Integrator database schema. In addition, if using Oracle Hyperion Financial Data Quality Management ERP Integration Adapter for Oracle Applications, you should deselect the option to create interface tables in step 5.d.

➢ To create interface data source links:

1. Click Start, Programs, Hyperion, Foundation Services, EPM System Configurator.
2. From the product selection panel, under Foundation, Performance Management Architect, select Interface Datasource Configuration, then click Next.
3. Select Create a new datasource link, then click Next.
4. Select a database type (Oracle, Microsoft SQL Server, or IBM DB2) and click Next.
5. Enter the details for the interface data source:
   a. Enter a name for the data source. The default, “Datasource,” is displayed but can be changed.
   b. In Host Details, enter the name of the server hosting the database and port number (defaults display based on database type).
   c. In Database Details, enter the database name to use as an interface data source, the database username, and password.
   d. Select Create Interface Tables.
   e. Click Next.
   f. Click Yes to confirm deletion of existing tables.
   g. Click Next after the “Configuration tasks are complete” message is displayed.

   **Note:** If a success notification is not displayed, review the configuration log (<HYPERION_HOME>/logs/config), correct errors, and rerun the EPM System Configurator.

   h. Select No to return to the Product Selection panel.
   i. Click Next.
   j. Click Finish.
After you complete the configuration in the EPM System Configurator, a set of sample tables is created in the database. For a complete list of the sample tables, see “Defining Interface Tables” on page 58.

To delete data source links:
1. Launch the EPM System Configurator.
2. Click Next.
3. From the product selection panel, select Foundation, Performance Management Architect, then select Interface Datasource Configuration, and click Next.
4. Select Delete a datasource link, and click Next.
5. From the drop-down list, select a data source link.
6. Optional: Select Delete interface tables to delete the database tables.
7. Click Next.
8. After the “Configuration tasks are complete” message is displayed, click Next.
9. Select No to return to the Product Selection panel.
10. Click Next.
11. Click Finish.

To edit data source links:
1. Launch EPM System Configurator.
2. From the product selection panel, select Foundation, Performance Management Architect, then select Interface Datasource Configuration, and click Next.
3. Select Edit a datasource link and click Next.
4. From the drop-down list, select a data source link, and click Next.
5. Make changes to the fields displayed (for example, to change a database password). Optionally, select Create interface tables, click Next and select Yes to confirm deletion of existing tables.

Note: If you do not select the Create interface tables check box, no tables are created. If you select the check box to create the interface tables, both IM_ (internal) and HS_ (sample) tables will be created. If the tables already exist, you are prompted to delete the existing IM_ and HS_ tables. If you click Yes to delete the existing tables, the new tables will be created. However, if you select No, the existing IM_ and HS_ tables will be left unchanged.

6. After the “Configuration tasks are complete” message is displayed, click Next.
7. Select No to return to the Product Selection panel, and click Next.
8. Click Finish.
Defining Interface Tables

Interface tables in Performance Management Architect are grouped into two categories: system tables and user-defined tables.

System tables are created when the interface tables are configured. They contain information used by the import module during profile creation and execution.

<table>
<thead>
<tr>
<th>System Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM_Load_Info</td>
<td>The use of this table is optional. It allows for grouping subsets of the records in the IM_ tables. For example, metadata from different sources can be staged into the same interface tables instance, but each source could be identified with its own Load_ID. The IM_Load_Info table can be used to keep track of the different Load_IDs and their corresponding sources. Note: During import execution, you can choose to only import metadata tagged with a specific set of Load_IDs. See “Entering Load ID Information When Importing Dimensions” on page 70. Columns are: i_Load_ID—Number representing the Load_ID. c_Source_System—Source system this Load_ID represents. This field is optional. c_User_Last_Updated—This field is optional. c_Date_Last_Updated—This field is optional. c_Last_Update_Login—This field is optional.</td>
</tr>
<tr>
<td>IM_Dimension</td>
<td>Contains information about the dimensions to be processed, their types, and references to all the tables/views containing metadata for those dimensions. Note: This table is pre-populated with the names of sample dimensions, sample dimension classes, and HS_ sample tables. (1 row per c_Dimension_Name) Columns are: i_Load_ID—Load_ID tag for this dimension. c_Dimension_Name—Name of the dimension. c_Dimension_Class_Name—Dimension type. c_Member_Table_Name—Name of the table or view that contains the Members information for this dimension. See “Members Section” on page 49. Populating and specifying this table/view is optional. c_Hierarchy_Table_Name—Name of the table or view that contains the Hierarchy information for this dimension. See “Hierarchies Section” on page 51. This table/view needs to be specified and defined when performing a replace mode import. c_Property_Array_Table_Name—Name of the table or view that contains the PropertyArray information for this dimension. See “Property Array Section” on page 52. Populating and specifying this table/view is optional. c_Dim_Property_Table_Name—This table partly corresponds to the !Dimensions section of the flat file, except that the dimension properties are not defined here. See “Dimensions Section” on page 48.</td>
</tr>
</tbody>
</table>
### System Table

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM_Dimension_Association</td>
</tr>
<tr>
<td>This table directly corresponds to the !DimensionAssociation section of the flat file. See “Dimension Associations Section” on page 49.</td>
</tr>
</tbody>
</table>

**Note:** The sample table is not pre-populated.

Columns are:
- **c_Load_ID**—Load_ID tag for this dimension.
- **c_Base_Dimension**—Name of the base dimension whose member property will be associated with another dimension. This is a required column.
- **c_Property**—The name of the associated property, for example 'Alias.' This is a required column.
- **c_Target_Dimension**—Name of the dimension with which the associated property is associated. This is a required column.

User-defined tables or views can be used to represent the Members, Hierarchies, PropertyArray, and dimension property content for a dimension. Both tables and views can be used as long as they are correctly referenced in the IM_Dimension table. The sample tables follow the naming convention, *HS_Dimension.Section*, where *Dimension* represents the dimension name, such as HS_Accounts_Hierarchy.

**Note:** The table names in the following table are samples and any names can be used for user-defined tables or views.

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS_Dimension_Member</td>
<td>This table directly corresponds to the !Member section of the flat file. See “Members Section” on page 49.</td>
</tr>
<tr>
<td>Table Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HS_Dimension_Hierarchy</td>
<td>This table directly corresponds to the !Hierarchies section of the flat file. See “Hierarchies Section” on page 51. Both Alias and UDA properties can be specified in the HS_Dimension_Hierarchy table even though the sample tables do not have columns for these properties. You can add columns for the Alias and UDA properties in the sample tables if desired. For example:</td>
</tr>
<tr>
<td></td>
<td><strong>For an Oracle database:</strong></td>
</tr>
</tbody>
</table>
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=English" NVARCHAR2(255);                                                                                                      |
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=French" NVARCHAR2(255);                                                                                                         |
|                            | **For a SQL Server database:**                                                                                                    |
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=English" nvarchar(255);                                                                                                        |
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=French" nvarchar(255);                                                                                                         |
|                            | **For an IBM DB2 database:**                                                                                                     |
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=English" VARCHAR(255);                                                                                                          |
|                            | ALTER TABLE HS_Account_Hierarchy  
|                            |   ADD "Alias=French" VARCHAR(255);                                                                                                          |
|                            | An equal sign [=] the column name can be used to represent each Alias dimension member as a separate column.                                                                                  |
| HS_Dimension_PropertyArray | This table directly corresponds to the !PropertyArray section of the flat file. See “Property Array Section” on page 52.                                                                          |
| HS_Dimension_Property      | This table directly corresponds to the !Dimension section of the flat file. See “Dimensions Section” on page 48.                                                                                     |

**Note:** The following sample tables are created when creating the interface table instance. They can be replaced with user-created tables. These tables are not pre-populated with actual data.
### Sample Tables

<table>
<thead>
<tr>
<th>HS_Account_Member</th>
<th>HS_Data_Sales</th>
<th>HS_SmartList_Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS_Account_Hierarchy</td>
<td>HS_Entity_Hierarchy</td>
<td>HS_SmartList_PropertyArray</td>
</tr>
<tr>
<td>HS_Account_Property</td>
<td>HS_Entity_Member</td>
<td>HS_Time_Hierarchy</td>
</tr>
<tr>
<td>HS_Account_PropertyArray</td>
<td>HS_Entity_Property</td>
<td>HS_Time_Member</td>
</tr>
<tr>
<td>HS_Alias_Hierarchy</td>
<td>HS_Entity_PropertyArray</td>
<td>HS_Time_Property</td>
</tr>
<tr>
<td>HS_Alias_Member</td>
<td>HS_Generic_Hierarchy</td>
<td>HS_Time_PropertyArray</td>
</tr>
<tr>
<td>HS_Alias_Property</td>
<td>HS_Generic_Member</td>
<td>HS_UDA_Hierarchy</td>
</tr>
<tr>
<td>HS_Attribute_Hierarchy</td>
<td>HS_Generic_Property</td>
<td>HS_UDA_Member</td>
</tr>
<tr>
<td>HS_Attribute_Member</td>
<td>HS_Generic_PropertyArray</td>
<td>HS_UDA_Property</td>
</tr>
<tr>
<td>HS_Attribute_Property</td>
<td>HS_ICP_Hierarchy</td>
<td>HS_Value_Hierarchy</td>
</tr>
<tr>
<td>HS_Attribute_PropertyArray</td>
<td>HS_ICP_Member</td>
<td>HS_Value_Member</td>
</tr>
<tr>
<td>HS_ConsolidationMethod_Hierarchy</td>
<td>HS_ICP_Property</td>
<td>HS_Value_Property</td>
</tr>
<tr>
<td>HS_ConsolidationMethod_Member</td>
<td>HS_ICP_PropertyArray</td>
<td>HS_Value_PropertyArray</td>
</tr>
<tr>
<td>HS_ConsolidationMethod_Property</td>
<td>HS_Period_Hierarchy</td>
<td>HS_Version_Hierarchy</td>
</tr>
<tr>
<td>HS_ConsolidationMethod_PropertyArray</td>
<td>HS_Period_Member</td>
<td>HS_Version_Member</td>
</tr>
<tr>
<td>HS_Country_Hierarchy</td>
<td>HS_Period_Property</td>
<td>HS_Version_Property</td>
</tr>
<tr>
<td>HS_Country_Member</td>
<td>HS_Period_PropertyArray</td>
<td>HS_Version_PropertyArray</td>
</tr>
<tr>
<td>HS_Country_Property</td>
<td>HS_Scenario_Hierarchy</td>
<td>HS_View_Hierarchy</td>
</tr>
<tr>
<td>HS_Country_PropertyArray</td>
<td>HS_Scenario_Member</td>
<td>HS_View_Member</td>
</tr>
<tr>
<td>HS_Currency_Hierarchy</td>
<td>HS_Scenario_Property</td>
<td>HS_View_Property</td>
</tr>
<tr>
<td>HS_Currency_Member</td>
<td>HS_Scenario_PropertyArray</td>
<td>HS_View_PropertyArray</td>
</tr>
<tr>
<td>HS_Currency_Property</td>
<td>HS_SecurityClass_Hierarchy</td>
<td>HS_Year_Hierarchy</td>
</tr>
<tr>
<td>HS_Currency_PropertyArray</td>
<td>HS_SecurityClass_Member</td>
<td>HS_Year_Member</td>
</tr>
<tr>
<td>HS_Data_CapExTemplate</td>
<td>HS_SecurityClass_Property</td>
<td>HS_Year_Property</td>
</tr>
<tr>
<td>HS_Data_Consolidation</td>
<td>HS_SecurityClass_PropertyArray</td>
<td>HS_Year_PropertyArray</td>
</tr>
</tbody>
</table>

In addition to the dimension interface tables created by the template script, you can add interface tables for additional dimensions. For example, the template script contains one set of tables for the Entity dimension. You can add more Entity dimensions as needed. For each dimension added to the interface tables, you must also include the dimension in the IM_Dimension system table so that the dimension is available during profile creation. You can find the scripts for creating sample tables in `HYPERION_HOME\Products\Foundation\BPMA\Server\Conf`. The scripts are named for each database type: `Oracle_Create_Interface_Tables.sql`, `DB2_Create_Interface_Tables.sql`, and `SQL_Server_Create_Interface_Tables.sql`.
Clearing Interface Tables

Options for the interface tables area:

- All
- Load ID
- Older Than—You can select the number of years, months, weeks, and days.
- Date Range

To clear interface tables:

1. In the Dimension Library, select File, Import, Clear Interface Area.

2. Select the data source.

3. Select one of the options for the type of data source load information to clear.
   You can enter multiple Load IDs separated by comma or can search for load IDs by clicking.

4. Click Clear.

5. Click Yes to confirm.

6. Click OK at the success message.

Creating Import Profiles

Before importing dimensions into the Dimension Library or an application, you must create an import profile. Profiles include important information about the dimensions to be imported such as new dimensions, whether to merge or replace existing dimensions, and dimension properties.
You can import, edit, view, and delete import profiles. See “Managing Import Profiles” on page 69.

For information on creating and initializing the Planning Sample Application using Performance Management Architect application administration, see the Oracle Hyperion Planning Administrator’s Guide.

To create an import profile:

1. From the Dimension Library, select File, Import, Create Profile.
2. Enter a profile name.
3. From Import Type, select Flat File or Interface Tables.
4. Optional: Enter a description for the profile.
5. Do one of the following:
   - If you selected Flat File in Step 3, click Upload, browse to find the file, and click Upload.

   **Note:** Performance Management Architect import supports text files in the ADS format with the following encodings: UTF-8, UTF-16LE, UTF-16BE, UTF-32LE, UTF-32BE. In addition, ASCII encoded files can also be read but are limited to English characters.

   ![New Profile](image)

   - If you selected Interface Table in Step 3, from Data Source, select the database to use for this profile.
6 If you want to import into the Dimension Library, select **Shared Library**, otherwise select an existing application.

The Application list includes Shared Library and all existing applications that you have security access to in the Application Library.

7 Click **OK**.

8 Click **Next**.

Now you will enter the file properties, as described in “Entering File Properties” on page 64. If importing from an interface table, skip to “Mapping Dimensions” on page 65.

### Entering File Properties

To enter file properties:

1 **In File Properties, select a column delimiter.**
   
   You can select semicolon (;), comma (,), pipeline (|), space, or tab. Semicolon is the default.

2 **Optional:** To remove single quotes from a string, select **Strip Quotes String**.
   
   If the flat file contains member formulas, deselect Remove Double Quotes on Strings to prevent quotation marks from being removed.

3 **Optional:** To remove spaces in the load file, select **Remove White Space**.

4 **Optional:** If you do not want transaction logs to be created, select **Suppress Transaction Logs**.

5 **Click Next**.

Now you will map the dimensions, as described in “Mapping Dimensions” on page 65.
Mapping Dimensions

In the Map Dimensions section, use the following methods to specify how to import dimensions from the flat file or interface table. You can map dimensions by performing an automatic mapping or manual mapping.

To map dimensions:

1. To create new dimensions from the source, select Create Dimensions for the non-mapped dimensions with the source dimension name. For any dimension that is unmapped (that is, any dimension that is not automatically or manually mapped), the name of the dimension in the flat file or interface table will be the name used to create the new dimension.

   When you select the Create dimensions for the non-mapped dimensions... option, the Shared Library or application column is automatically populated.

2. If a dimension in the flat file or interface table exists in the Shared Library or application, you can automatically map the dimensions and select to merge the imported dimension into the target dimension or replace the target dimension with the imported dimension. To automatically set all dimensions to Merge As Shared, choose Select All — Merge As Shared.

3. To manually map the dimensions, in the Shared Library column, create a new dimension or map the imported dimension to another dimension. If you map to another dimension, you can merge the imported dimension into the Shared Library dimension or replace the Shared Library dimension with the imported dimension. Perform one of these actions:
   a. Select the Shared Library dimension to map to the flat file dimension.
   b. Create a dimension. To create a dimension:
      i. From the Shared Library or application, select New Dimension.
      ii. In the Add New Dimension dialog box, enter the dimension name and optional description, select the dimension type, and click OK.
   c. Optional: Select Merge or Replace.
      ● Merge Mode—Merge mode processes all sections and adds new dimensions, members, relationships, properties and associations that exist in the source, but do not exist in the Shared Library or target application. No dimensions, members, relationships, properties, or associations are removed as a result of a merge mode import. If a dimension, relationship, member, or property specified in the source exists in the Shared Library or target application it is replaced with the value specified in the source. Properties not included in the source are unchanged in the Shared Library or target application.
      ● Replace Mode—Replace mode works similar to merge mode. All new elements are added and all property updates are made. Then, any members or member relationships that are not specified in the source are removed from the Shared Library or target application. You can also use replace mode to reorder members under a parent. Properties not included in the source are unchanged in the Shared Library or target application.
Note: If you are creating new dimensions, the merge and replace options are not applicable.

- Merge as Shared—If you select Merge mode, the Merge As Shared option is automatically selected. This option is only meaningful with merge mode. It is ignored with replace mode. This option is also ignored for any Hierarchies sections where the IsPrimary property is specified.

When Merge As Shared is selected the first occurrence of a member in the Hierarchies section will become the primary instance and subsequent occurrences will be shared instances of the primary instance. If a primary instance of a member already exists in the Shared Library or target application then all instances specified in the source will be added as shared instances.

If Merge As Shared is not selected, the system moves the primary instance of a member in the Shared Library or target application under the parent specified for the first occurrence of that member in the source Hierarchies section. For example, you would deselect Merge As Shared if you want to move a hierarchy that currently exists in an application or the Shared Library to another parent. Deselecting the Merge As Shared option ensures that members are moved to a different parent as specified in the source rather than creating new shared instances of the member specified in the source.

4 Click Next.

The Dimension Mapping screen is displayed. Now, define the property mapping options, as described in “Dimension Mapping—Property Mapping Options” on page 66.

**Dimension Mapping—Property Mapping Options**

- To define the dimension property mapping options:

1 To import dimension properties from the flat file or interface table, select the properties to import in the Shared Library column. You can double-click on a cell in the Shared Library or application column for a drop-down list of available properties.

   Some cells may not display a default property, in this case, you can use the Property Selector dialog box to choose a property.

2 **Optional:** Right-click an empty cell and select **Find Property**.

   The Property Selector dialog box is displayed.
3 Select the property, then click OK.

4 Optional: Select Remove Target Value for Missing Source Properties.
   If “Remove Target Value for Missing Source Properties” is selected, this option tells the
   import engine to perform the equivalent of a “Remove Value” operation on any properties
   whose value in the source is empty. If not selected, empty property values are not processed.

5 Click Finish.

6 Click Yes to import the profile into the Dimension Library.

   Note: For interface table import profiles, a Load ID Input dialog box is displayed. You can
   enter the load IDs, separated by a comma. See “Entering Interface Table Load IDs for
   Import Profiles” on page 68.

   If you click the link to view the job in the Jobs Console, you can view the import results after
   the job completes. You can click to refresh the import status.

7 When the import is completed, view the import results for warnings or errors.
   If you imported dimensions into an application, the attachments area includes a link to a
   log file, otherwise the link displays the Import Results screen. For information on viewing
   job attachments, see “Viewing Job Attachments” on page 469. For information on viewing
   the import results, see “Viewing Import Results” on page 470.
**Note:** The ImportErrorThreshold setting in the bpma_server_config.xml file defines the maximum number of combined errors and warnings that can occur before a running import shuts down. The default value is 1000, however you can change the ImportErrorThreshold setting and increase the import error threshold. See Appendix H, “Configuration Settings in the BPMA_Server_Config.xml File.”

If you imported dimensions into an application, after the import is complete you can view and edit the dimensions in the application. Otherwise, you can view the dimensions in the Shared Library.

### Entering Interface Table Load IDs for Import Profiles

When importing dimensions and members from interface tables, all dimensions and members are automatically imported. However, there is a i_Load_ID column in the interface tables that can act as a filter when running the import profile. Your database administrator can populate the i_Load_ID column in the database to enable you to filter the dimensions and members imported. In Performance Management Architect, you can enter a load ID when you create an import profile or import dimensions to filter artifacts from the interface tables so you do not load erroneous metadata.

- To enter load IDs:
  1. After you create an interface table import profile and click Yes to import the dimensions.
  2. In the Load ID Input dialog box, enter the load IDs, separated by a comma or click ![icon] to select the load IDs.
Note: The i_Load_ID column must be populated in the interface table by the database administrator before you can select them in Performance Management Architect.

3 Click OK.

Managing Import Profiles

After you create import profiles, you can import dimensions into the Dimension library, view profile details, and edit and delete profiles.

See the following sections:

- “Importing Dimensions” on page 69
- “Editing Import Profiles” on page 71
- “Viewing Import Profile Details” on page 71
- “Deleting Import Profiles” on page 71

Importing Dimensions

To import dimensions:

1 From the Dimension Library, select File, Import, Import Dimensions.
2 Select an import profile.
3 Select the type of import: Flat File or Interface Tables.

Note: If you select Interface Tables and want to enter a Load ID, see “Entering Load ID Information When Importing Dimensions” on page 70.

4 Perform an action:

- Select Flat File, click Browse to find the file, then click Upload.
- Select Interface Tables, then select the data source. To enter load IDs, click Browse, then click Upload.
Entering Load ID Information When Importing Dimensions

When importing dimensions and members from interface tables, all dimensions and members are automatically imported. However, there is a _Load_ID column in the interface tables that can act as a filter when importing dimensions. Your database administrator can populate the _Load_ID column in the database to enable you to filter the dimensions and members imported. In Performance Management Architect, you can enter a load ID when you create an import profile or import dimensions to filter artifacts from the interface tables so you do not load erroneous metadata.

**Note:** The _Load_ID column must be populated in the interface table by the database administrator before you can select them in Performance Management Architect.

To enter loadID information:

1. In the **Import Dimensions, Interface Load ID field**, enter the load ID or click ![Import](image).

   **Tip:** To enter multiple Load IDs separate each entry with a comma (,).

   The Load ID Selection dialog box is displayed.
In the list of available load IDs on the left, select a load ID to add and click ![add](image).

To deselect a load ID from the list of selections, click ![delete](image).

Tip: To select all load IDs, click ![select](image). To deselect all load IDs from the list of selections, click ![deselect](image).

Click OK.

### Editing Import Profiles

To edit import profiles:

2. Select the type of import: Flat File or Interface Tables.
3. Perform an action:
   - If you selected Flat File, click **Upload**, browse to find the file and click **Upload**.
   - If you selected Interface Tables, proceed to the next step.
4. Right-click a profile, and select **Edit Profile**.

Note: You must upload a flat file to activate the Edit Profile option.

5. Edit the import profile.

   Follow the steps in “Creating Import Profiles” on page 62.

### Viewing Import Profile Details

To view import profile details:

2. Right-click a profile, and select **View Details**.
3. Click the tabs to view profile information, dimensions, or properties.
4. Click **Close**.

### Deleting Import Profiles

To delete import profiles:

2. Select the type of import: Flat File or Interface Tables.
3 Right-click a profile, and select **Delete Profile**.

4 Click **Yes** to confirm deletion of the profile.
Creating Dimensions

You can manually create dimensions and edit existing dimensions. You can create dimensions in several ways, but only in the Dimension Library.

Note: When creating dimensions in the Dimension Library, you may be able to deviate from product naming rules. However, within product applications, naming rules must be followed. For Planning dimensions, see “Naming Restrictions for Dimensions, Members, and Aliases” on page 537, for Financial Management dimensions, see Appendix A, “Working with Financial Management Dimensions”, and for Essbase dimensions, see Appendix D, “Working with Essbase Properties.”
To create a dimension:

1. Select **File, New, Dimension**.
2. Enter a name and optional description for the dimension.
3. Select the dimension type.

![Add New Dimension](image)

**Note:** See Table 12, “Dimension Types,” on page 45.

4. Click **OK**.

The dimension is added to the Dimension Library. You can add members to the dimension by right-clicking on the dimension and selecting to create, add, or insert members. See “Creating Members” on page 117.

Each dimension type is represented in the Shared Library with an icon. For a list of Performance Management Architect dimension types, see Table 12, “Dimension Types,” on page 45.

**Note:** You cannot rename dimensions later. If you need to rename a dimension, you must copy the dimension and give the dimension a new name. Then, you can add the new dimension to applications and remove any associations for the old dimension. Then, if necessary you can delete the old unused dimension.

### Understanding Shared and Local Dimensions

Performance Management Architect applications can contain dimensions of two different states: shared and local.

- **Shared Dimensions** are created in an area of the Dimension Library called the Shared Library. These dimensions are available to all applications and can be individually linked to one or
more applications when included in each application as a shared dimension. Changes made
to the dimension in the Shared Library are automatically inherited to every application
sharing that dimension. All types of modifications can be made to the dimension within the
Shared Library but only certain types of changes can be made to the shared dimension within
the application.

Once a dimension has been included in an application as a shared dimension, changes can
be applied to the shared dimension within the application to handle exceptions that may
only be relevant to that application. These types of changes include:

- Member filters
- Property value overrides

Structural changes for shared dimensions, such as adding or moving members, can only be
performed within the Shared Library.

- Local Dimensions originate within a single application and can be created directly within
  the application or as a copy of a dimension from the Shared Library or another dimension
  in the application. Local dimensions are separate dimensions and do not inherit any changes
  made to the dimension in the Shared Library.

- The initial copy of the dimension from the Shared Library copies the entire dimension.
  Any subsequent actions, such as adding new members, are performed within the
  application.

- If you make changes to the shared dimension that was used to create the local dimension,
  you have the option to explicitly merge any further changes to the dimension at the
  application level. See “Converting Local Dimensions to Shared” on page 181.

### Modifying Properties

From the Dimension Library, you can edit these properties:

- Applications
- Dimensions
- Members

Properties are organized into categories:

- System—used to identify characteristics of a member, such as name, description, and if the
  member is inactive.
- Statistical—used to provide statistical information about a member such as number of
  children and number of siblings.
- Essbase (ASO)—Essbase reporting cubes only
- Planning—used for Planning applications
- Essbase (BSO)—Essbase reporting cubes only
- Consolidation—Financial Management applications
Dimension property categories are defined in product-specific appendixes:

- Appendix B, “Working with Planning Dimensions”
- Appendix D, “Working with Essbase Properties”
- Appendix E, “Working with Statistical and System Properties”

Each appendix describes these properties, their possible and default values, as well as other characteristics that determine how they should be used. Properties can be global or relationship:

- Global Property—The value of this property is the same for a member of a dimension regardless of its associated parent.
- Relationship Property—The value of this property can differ for a member for each parent it is under. If a member is under the same parent in multiple places in the dimension, that member has the same value for that relationship.

Properties for members of dimensions can also be inherited. There are two types of inheritance: relationship inheritance or application inheritance.

- Relationship Inheritance—The default value is obtained from the value of the property for the parent of the member in the dimension. An inherited property can be global or vary by relationship. A global inherited property inherits from the parent of the primary member in the dimension. A relationship inherited property inherits from the parent for each instance of a member since the property value can differ by relationship. An inherited value is only a default value and can be overridden by a stored value for a member. In this situation, a change to the parent for this property would no longer affect the member because the inheritance was overridden.

- Application Inheritance—The default value of a property for a member in a shared dimension in an application is inherited from value of that member in the Shared Library. At the application level, you can override the Shared Library inherited property value with a value local to the application. The inherited values are only default values for the members in the application, so they can also be overridden within the application. Any changes to the dimension in the Shared Library would no longer affect the property for the member once overridden.

### Considerations for Working with Planning Dimensions

You create hierarchical relationships within dimensions by creating and organizing members, which are components of dimensions. You can add dimension members individually or using Import Profiles. Dimension names must use the conventions detailed in “Naming Restrictions for Dimensions, Members, and Aliases” on page 537.
Sparse dimensions lack data values for the majority of member combinations, and have a low percentage of available data positions filled. Dense dimensions have a high probability that one or more data points are occupied in every combination of dimensions.

To optimize database performance, designate dimensions as sparse or dense. If a dimension is sparse, Planning calculates only data values that are occupied in each dimension combination. This optimizes performance by decreasing calculation time and lowering disk usage. By default, Planning designates the Account and Period dimensions as dense and other dimensions as sparse.

Dimension hierarchies define structural and mathematical relationships, and consolidations between members in the database. Members of the same level that belong to the same dimension or member are called siblings. Members that belong to a dimension are called children of the dimension. Members that belong to a member are called children of that member.

For important information about applications, see “Properties Applicable to All Planning Dimensions” on page 517 and “Properties Common to Multiple Planning Dimensions” on page 519. Additional considerations include:

- New dimensions created in the Dimension Library do not have any default associations.
- For dimensions loaded from a flat file, the association must be specified in the flat file.
- For applications upgraded from Planning to Performance Management Architect, the associations may be assigned.
- It is not necessary to associate a Smart List with a dimension (such as Account or Entity), but Smart Lists are associated in the Smart List property field. Smart Lists should be associated with members in the Shared Library. Any member associated with a Smart List should have its Data Type set to Smart List.

### Additional Planning Dimension Features

Additional Essbase features are now supported for Planning dimensions. You can add children and siblings to Scenario, Version, and Period dimensions, and you can use cut, paste, expand, and collapse members in the dimension hierarchies. You can also use shared members for these dimensions, and can set two pass calculations at the root level for all dimensions. For example, you can:

- In Scenario and Version dimensions, create hierarchies and use shared members. If you assign children to bottom-up versions, these versions display as read-only parents on data forms.
- In the Period dimension, create alternate hierarchies and use shared descendants. Data Storage for all time periods can be set to any valid Data Storage value. The consolidation operator for all scenarios, versions, and time periods (including BegBalance) can be set to any valid consolidation operator. For example, it can be set to + instead of ~ (ignore).
- For attributes, create hierarchies and assign aliases.
- Turn on two pass calculation at the root level, for example, for Account.
Caution! Two pass calculation is ignored on any non-Account member not set to dynamic calc. When using this setting, consider the impact on currency conversion scripts.

Note: For multi-currency applications, the pre-built currency conversion calc scripts do not function properly if you change data storage to dynamic for any Scenario, Version, Period, or Year member, or for certain dimension roots (such as Entity, Version, Currency, and custom dimensions). When changing data storage, consider the impact on currency conversion scripts.

Alias Dimensions

Aliases are alternate names, descriptions, languages, or other items that help to define dimensions. You can assign one or more aliases to Planning accounts, currencies, entities, scenarios, periods, versions, years, attribute values, and user-defined dimension members. You can assign aliases to any Financial Management dimension.

There are three elements to an Alias dimension:

- Alias dimension
- Alias members
- Alias property

You create an Alias dimension and add members to it. Enter a description, alternate name, and so on, in the Alias property value field for members of associated dimensions. For example, you create an Alias dimension with members: English, French, Italian. In Planning, these members are considered Alias tables. In the Currency dimension that is associated with this Alias dimension, are the members AUD, JPY, and USD. Double-click the alias property value for each member and enter a description for English, French, and Italian. For example, the English descriptions might be Australian Dollar, Japanese Yen, and United States Dollar.

You can set up how you want members and their aliases to display in the Dimension Library. You can display just the member name, just the alias, or both. For example, if you have a currency member named AUD with an alias of Australian Dollar, in the Dimension Library you can display just AUD, just Australian Dollar, or AUD-Australian Dollar.

Aliases enable you to create unique identifiers for dimensions and members. For example, Cost Center dimension members may be identified by a number (100, 200, 210, and so on) or by a descriptive alias (Human Resources, Engineering, Sales, and so on). Members may also have aliases for different languages.

The name of the Alias dimension must follow naming requirements of the Hyperion product. For Planning dimensions, see “Naming Restrictions for Dimensions, Members, and Aliases” on page 537. For Financial Management dimensions, see Appendix A, “Working with Financial Management Dimensions”.

78 Working with Dimensions
Note: You may be able to enter different characters when creating an Alias dimension in the Dimension Library, but when the Alias dimension is brought into an application, the application’s naming rules are applied.

To set up an Alias dimension:

1. In the Dimension Library, create an Alias dimension, and add members to it.
   
   Note: When applications are deployed to Planning, child members of the Alias dimension become Alias Tables. Therefore, for Planning you must add a member named Default.

2. Associate the main dimension, such as Account or Entity, with the Alias dimension. See “Creating Dimension Associations” on page 81.

3. Drag the Alias dimension to an application. (You also need to drag the main dimensions that have associations with the Alias dimension if they do not exist in the application.)

4. Activate the associations in the application. See “Viewing Dimension Associations” on page 183.

5. In the application, select a main dimension member, for example Sales, and double-click in the Alias field of the Property Grid.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid For Plan1</td>
<td>✓</td>
</tr>
<tr>
<td>Valid For Plan2</td>
<td>✓</td>
</tr>
<tr>
<td>Valid For Plan3</td>
<td>✓</td>
</tr>
<tr>
<td>Valid For Workforce</td>
<td></td>
</tr>
<tr>
<td>Valid For Capex</td>
<td>✓</td>
</tr>
<tr>
<td>Aggregation For Plan1</td>
<td>+</td>
</tr>
<tr>
<td>Aggregation For Plan2</td>
<td>+</td>
</tr>
<tr>
<td>Aggregation For Plan3</td>
<td>+</td>
</tr>
<tr>
<td>Aggregation For Workforce</td>
<td>~</td>
</tr>
<tr>
<td>Aggregation For Capex</td>
<td>~</td>
</tr>
<tr>
<td>UDA</td>
<td>✓</td>
</tr>
<tr>
<td>Member Formula</td>
<td>✓</td>
</tr>
</tbody>
</table>

6. Click ![ ] and enter alias names in the alias tables for the member.
To view the alias for a member:

1. Select the Alias dimension for the application.
2. In the Property Grid, select the System category.
3. Double-click Default Member, select an Alias table, then click Save.
4. In the Property Grid, select the Planning category.

If a base dimension, such as Entity, has an active association with the Alias dimension, and an entity member has an alias defined for the selected alias table, the alias is displayed in the Alias field in the Planning category.

**Tip:** In the Dimension Library, select View, Member, Display, Both to display aliases for an application.

**User-Defined Attribute Dimensions**

User-defined attribute (UDA) dimensions enable you to reuse UDAs that you create for members in multiple dimensions. UDAs are words or phrases used to describe characteristics of members—within calculation scripts, member formulas, and reports so that they return lists of members associated with the specified UDA. For example, if you have a Product dimension...
with various product members, you could create a UDA dimension called New Products and base certain calculations only on new products.

- To create UDA dimensions:
  1. In the Dimension Library, select File, New, Dimension.
  2. Enter the dimension name and description.
  3. Select UDA.
  4. Add members to the UDA dimension.

Members are the UDAs that you can choose from when assigning UDAs to a member using the Property Grid. For additional information, see “Working with User-Defined Attributes” on page 132.

### Custom Dimensions

When using custom dimensions, you must follow the naming conventions in “Naming Restrictions for Dimensions, Members, and Aliases” on page 537. Ensure that dimension names and aliases are unique. They can contain up to 80 characters, including spaces. Descriptions have up to 255 characters.

You can assign access permissions to members, rearrange the dimension member hierarchy, and share members of the Entity, Account, and custom dimensions. For information about assigning access permissions, see the *Oracle Hyperion Planning Administrator's Guide*.

### Dimension Associations

Any dimension that references other dimensions requires associations. For example, any dimension which references dimensions such as security class and currency require associations. Because Oracle's Hyperion products allow for configuration of the application (which dimensions have security applied), dimensions that require associations depend on an application's configuration.

### Creating Dimension Associations

You create dimension associations to assign security classes, currency, and attributes to dimensions and their members. For example, if you associate an entity dimension with the security class and currency dimensions, the associations are inherited by all members of the entity dimension.

You can also create dimension associations in a flat file. See “Dimension Associations Section” on page 49. Existing associations are automatically created and activated when you upgrade an application.
To create dimension associations:

1. Right-click a dimension, and select Create Association.

   **Note:** Security Class and Alias dimensions can only be associated with Attribute dimensions.

2. Select Existing Property or New Property.

3. If you selected Existing Property, from the Property drop-down list, select the property.

4. If you selected New Property, enter the name of the new property.

   **Note:** When you select New Property, you can only create associations with Attribute dimensions.

5. Optional: Enter a description for the association.

6. From Dimension, select the associated dimension.

7. Click OK.

   **Note:** Associations created in the Dimension Library must be activated in the application. See “Viewing Dimension Associations” on page 183.

### Viewing and Deleting Dimension Associations

To view and delete dimension associations:

1. In the Dimension Library, right-click a dimension and select View Associations.
2 Optional: To sort columns in the View Dimension Association dialog box, click the column header.

Tip: To view a list of applications that use the dimension association, right-click the row of the association and select Search.

3 To delete an association, select the association row and click Delete.

Tip: You can select multiple dimension associations using the [Ctrl] or [Shift] keys.

4 Click Yes to confirm.

5 Click OK.

Copying Dimensions

You can copy dimensions to create a new dimension of the same type. When a dimension is copied, all members and property values are also copied to the new dimension. There is no link defined between the original dimension and the new copied dimension.

You can copy dimensions:
Within the Shared Library
- Within an application as a local dimension
- From the Shared Library to an application creating a new local dimension
- From an application to the Shared Library for sharing with other applications

➤ To copy dimensions to the Shared Library:

1. **Right-click a dimension in the Shared Library and select Copy Dimension To, Shared Library.**

   ![Dimension Status Selection](image)

   - **Dimension Name:** Copy of C_Scenario
   - **Dimension Description:**

2. **Change the default dimension name and enter a description.**

3. **Click OK.**

The dimension is added to the Shared Library.

➤ To copy a dimension to an application:

1. **Right-click a dimension and select Copy Dimension To, Application.**

   ![Dimension Status Selection](image)

   - **Dimension Name:** C_Scenario
   - **Dimension Description:**
   - **Application:**

2. **Modify the dimension name and enter a description.**

3. **Select the application and click OK.**

**Viewing Application Membership**

Application membership indicates which members or dimensions are used in which application. You can use this information to determine the impact of dimension changes.
To view application membership:
1. In the Dimension Library, right-click a dimension or member and select Application Membership.
2. Click Close.

Organizing Dimensions

You can organize dimensions by creating folders and copying or moving the dimensions into the folders. The following sections provide detailed information on organizing dimensions.

- “Creating Folders” on page 85
- “Adding Dimensions to Folders” on page 85
- “Renaming Folders” on page 86
- “Deleting Folders” on page 86

Creating Folders

To create folders:
1. Select File, New, Folder.
   
   The Create New Folder dialog box is displayed.
2. Enter the name and description, then click OK.

Adding Dimensions to Folders

Dimensions can exist in more than one location. For example, you can organize dimensions and have the Accounts dimension exist in multiple folders or have the Accounts dimension exist at the highest level and also within a folder. You can use several methods to copy or move dimensions into folders.

Copying Dimensions

To copy dimensions into folders:
1. In the Shared Library, right-click the folder and select Add Dimensions.

   The Add Dimensions to Folder dialog box is displayed.

   Tip: When you use the Add Dimensions dialog box, the dimensions are copied to the new location. In this instance, dimensions exist in multiple locations.
2. Using the [Ctrl] key, select one or more dimensions in the list.
Note: If a dimension already exists in a folder, you cannot add a dimension with the same name into the folder.

3 Click OK.

Moving Dimensions

Dragging dimensions moves them from their original location into a folder.

To move dimensions, in the Shared Library, drag the dimensions into a folder.

Tip: You can use the [Ctrl] key to select multiple dimensions to move.

To move dimensions out of a folder and back to the root of the Shared Library, right-click a dimension in the folder and select Remove from Folder. Then, click Yes to confirm.

Renaming Folders

To rename folders:

1 Right-click a folder, and select Rename.

The Rename Folder dialog box is displayed.

2 Enter the folder name, then click OK.

Deleting Folders

You can delete folders that you create in the Dimension Library. When deleting folders, you have two options: 1) delete only the folder, or 2) delete the folder and content.

Deleting Folders Only

When deleting folders, keep in mind these guidelines:

- Only the folder is deleted
- Dimensions and sub-folders are not deleted and are moved to the root of the Dimension Library
- If deleting a sub-folder, only the sub-folder is deleted—dimensions are not deleted, rather they are moved to the root folder

To delete only folders:

1 Right-click a folder and select Delete, Only Folder.

A confirmation dialog box is displayed.
2 Click Yes.
3 Click OK.

**Deleting Folders with Content**

When deleting folders with content, keep in mind these guidelines:

- The entire contents are deleted.
- The folder, including any sub-folders and dimensions are deleted.
- If deleting a sub-folder, the sub-folder, including any folders and dimensions are deleted.

To delete folders and contents:

1 Right-click a folder and select **Delete, Folder with Content**.
   A confirmation dialog box is displayed.
2 Click Yes.
3 Click OK.
   The folder and all dimensions in the folder are deleted.

**Filtering Dimensions**

You can filter the dimensions you see in the Dimension Library. Filtering only applies to dimensions, and not folders.

*Note:* If you create a dimension and have a filter applied that does not include the new dimension, the dimension will not display in the Shared Library until you remove the filter.

To filter dimensions:

1 Click or select **View, Filter Dimensions**.
   The Dimension Filtering dialog box is displayed.
2 Enter the name, select the type, or enter the name of the user or group that owns the dimensions.

You can use wildcard characters to filter dimensions. The Dimension Server supports these wildcard characters: $^\{ ( ) + . * ? !

3 Click OK.

Tip: To remove filter criteria, select Edit, Clear Filter Criteria.

When dimensions are filtered, a filter icon is displayed in the Shared Library pane.

Sorting Dimensions and Folders

You can sort dimensions and folders in ascending or descending order.

To sort dimensions and folders:

1 Click .

The Dimension Sorting dialog box is displayed.

2 Select the artifact to sort by (Dimension Class, Name, Description, Owner).

3 Select the sort order (Ascending or Descending).

4 Click OK.

Tip: To remove the sort, click Edit, Clear Sort Criteria.
When dimensions are sorted, a sort icon is displayed in the Shared Library pane.

**Deleting Dimensions**

When you delete a dimension, the dimension and all members of the dimension are deleted from the Dimension Library. The dimension and members are also deleted from applications using the dimension. Associations for the dimension are also deleted.

**Caution!** Before deleting a dimension, right-click the dimension and select **Application Membership**, to view what applications are using the dimension. If an application contains the dimension, you cannot delete the dimension.

For important information on deleting Planning dimensions, see “Excluding and Deleting Planning Members” on page 126

➢ To delete dimensions:

1. In the Dimension Library, right-click a dimension and select **Delete Dimension**.
2. Click Yes.

**Using the Grid Editor**

You can use the Grid Editor to view and maintain dimensions within a tabular, grid-based interface. You can also:

- View properties for multiple members simultaneously
- Perform bulk updates to multiple members
- Identify changed values and easily assign values

The following example displays the Grid Editor, enabling you to edit members and properties for the Accounts dimension.
Launching the Grid Editor

To launch the Grid Editor:

1. Right-click a dimension and select Grid Editor.

**Note:** The Grid Editor option is not available if you right-click a member. You must right-click a dimension.

The Grid Editor Wizard is displayed.
The Grid Editor Wizard enables you to display members within a dimension. Expand and collapse members within a dimension using the [+| and [-|.

The Grid Editor Wizard has two panes—all members in the dimension on the left and selections in the Grid Editor on the right. The left pane, showing all members available in the dimension, displays the member name and a short description, if available. The right pane, showing selections for the Grid Editor, displays the member name and the selection type.

You can use the Menu button above each pane to change the columns in the Grid Editor Wizard.

2 To collapse all members in a dimension, click ![image](image.png), and select Collapse All.

Note: When you select Collapse All, all members under the dimension or member that you selected are collapsed. When a dimension or member is collapsed, rest the mouse pointer over the artifact to display a ToolTip indicating the number of descendants.

3 Perform one of these actions:

   a. In the left pane, click ![image](image.png), Show, Count.
The Count column displays in addition to Name and Description. The Count column displays the number of child members under the current dimension. This can be a helpful indicator of how long it might take to expand down a branch of the tree.

b. To remove the Count column, click and select **Show, Count**.

4 Perform one of these actions:

a. To display the Alias column, click and select **Show, Alias**.

The Alias column displays in addition to the Name and Description. The Alias column displays the alias, which is an alternate description for dimension members.

b. To remove the Alias column, click and select **Show, Alias**.

5 To modify the columns in the Selections pane, in the Selections pane, click **Show, Selection Type**.

Name automatically displays in the Selections pane, however you can decide if you want the Selection Type to display.

### Selecting Members

The first step in using the Grid Editor wizard is to select the members that you want to edit using the Grid Editor.

➢ To select members:

1 Select a dimension.

   **Note:** By default, the dimension you selected when you right-clicked to select Grid Editor is displayed. If you want to choose a different dimension, click the Dimension drop-down arrow.

You can use the Grid Editor for any dimension within the Shared Library or application, however, you can only work with one dimension with at a time. For information on shared dimensions in applications, see “Including Dimensions in Applications” on page 179.

2 Select the members on the left and click .
3 To add special options for the member, click ![Add Options](image). Choose an option:

- Member
- Children
- IChildren
- Descendants
- IDescendants
- Siblings
- ISiblings
- Parent
- IParent
- Ancestors
- IAncestors

In the above options, “I” indicates inclusive. For example, “IChildren” adds all children for the member, including the selected member, and “IDescendants” adds all the descendants including the selected member. If you select “Children,” the selected member is not included and only its children are included.

The member is moved to the right and displays the option you selected in the Selection Type column. For example, “Descendants” displays in the Selection Type column.

4 Repeat the steps above until you select all members you want to view in the Grid Editor.
Tip: To deselect all members from the list of selections, click .

5 If necessary, select new dimensions and members to edit.

6 When finished, click Next .

The Select Properties tab is displayed. See “Selecting Properties” on page 94

Selecting Properties

You can select the properties that you want to modify using the Grid Editor. When selecting properties using the Grid Editor Wizard, make sure to select the appropriate category.

To select properties:

1 Since properties can differ by category, select the category that includes the properties you want to edit.

2 Select the properties on the left and click .

3 Repeat the steps above until you select all properties you want to edit in the Grid Editor.

4 Click Finish.

The Grid Editor is displayed.
Grid cells that represent read-only properties are dimmed and disabled. Properties utilizing special controls such as check boxes within the Dimension Library Property Grid also use the same controls within the Grid Editor.

If you are editing a Shared Library dimension, the Grid Editor shows the dimension name after “Shared Library,” such as “Shared Library: Account.” However, if you are editing a dimension in an application, the name of the application appears before the dimension name. For example, “FinMgt: Account.” In addition, each property category name is displayed above the property columns. For example, Consolidation displays above the properties you selected in the Consolidation category.

Working with the Grid Editor

The Grid Editor displays the members and properties you selected in the wizard. Since members and properties can differ, depending on the category, you can select a specific category to display at the top of the Grid Editor. Members appear as rows, displaying member names on the left. Properties appear as columns, showing the name as the second row in the column heading. Each corresponding property value displays as cell data.

Saving Member and Property Changes

When you make changes to members and properties, you can set the changes to occur immediately or wait until you use the Save button. The Grid Editor AutoCommit feature saves each change, individually. Keep in mind these guidelines when using the AutoCommit feature:
Save button—

AutoCommit—

If the AutoCommit feature is unchecked:

- The data is saved only when you click the Save button.
- If you modify members or properties, the cells are shaded with a new color. Colors include:
  - **Yellow**—A cell that is yellow indicates that the value has been updated. Upon saving the value, it is updated in Dimension Library and the cell color reverts to the default color.
  - **Red**—A row that is red indicates that it is marked for deletion. After a row is marked for deletion, the cells cannot be edited. Upon saving, the members are deleted from the Dimension Library, removed from the application, and the rows are deleted from the current page of the grid.

If you navigate from one page of the grid to another, a confirmation dialog box is displayed, asking you to save any changes.

- All changes are saved when you click the Save button.
- If you try to change the auto commit to checked, you will be prompted to save the data.

If the AutoCommit feature is checked:

- The data is saved on the individual action performed.
- Property values are saved when you change the row or press the [Enter] key
- Members are deleted immediately when you right-click and select Delete Member

**Note:**
You can click ![to remove the changes made to the grid and refresh the grid with last saved data.**

**Changing Dimensions**

You can change the dimension that is displayed in the Grid Editor.

➤ To change the dimension:

1. **Right-click the dimension name in the upper left corner of the Grid Editor.**

2. **Select Change Dimension.**
   - The Grid Editor Wizard is displayed.

3. **Select a dimension using the Dimensions drop-down arrow.**

4. **Select the members to show in the grid and click Next.**

5. **Select the properties and click Finish.**
   - The Grid Editor is displayed.
**Viewing Ancestors**

You can view ancestors for a member using the Grid Editor to identify where a member resides in the dimension hierarchy.

1. **Right-click a member (row) and select Show Ancestors.**

   The Show Ancestors dialog box is displayed. The member name is automatically displayed in the Search text box and expanded in the list.

2. **Click OK.**

   **Tip:** You can search for members by entering the name in the Search text box. The search finds all members in the selected dimension based on the text you enter. For example, you can enter c*, to select the first member that starts with “c”. You can also use the Next and Previous buttons to display additional members that begin with “c.”

**Creating Members**

You can create children or sibling members using the Grid Editor.

Creating a member as a child to the selected member appends the property values row of the new child member to the current page of the grid. Creating a sibling to the selected member creates a new member as a sibling at the same level of the selected member and appends the property values row of the new sibling member to the current page of the grid.

1. **Right-click a row and select Create Member. Select As Child or As Sibling.**

   The New Member dialog box is displayed.

2. **Enter the member name and click OK.**

   The member is displayed below the selected member in the Grid Editor. When you create new members, the Grid Editor automatically saves the action.

**Adding Members**

1. **Right-click a row and select Add Member to Grid.**

   The Add Member dialog box is displayed.

2. **Select the member(s) to add and click OK.**

   **Tip:** You can search for members using the Search area at the bottom of the Add Member dialog box.
3 Click OK.
   The new member is added as a row to the Grid Editor.

Removing and Deleting Members

You can use the Grid Editor to remove or delete members. Removing a member removes the selected member from grid. Deleting a member deletes the selected member by marking it as red in color. Deleting a member physically deletes it from the Dimension Server when you click the Save button.

➤ To remove members from the Grid Editor display:

1 Click before you attempt to remove a member.
2 Right-click the member row and select Remove Member from Grid.
   The member is removed from the dimension.

➤ To delete members from the Dimension Server:

1 Right-click a member and select Delete Member.
   A confirmation dialog box is displayed.
   
   | Caution! Deleting a member deletes it from all views. Be extremely careful. |

2 Click Yes.

Sorting Members and Properties

You can sort members and properties in the Grid Editor.

➤ To sort artifacts in the Grid Editor:

1 Click .
   The GridEditor Sort Dialog is displayed.
2 Select want you want to sort, for example Members or Properties.
3 If you selected Member, select the artifact to sort by (Name, Alias, or Property).
4 Select the sort order (Ascending or Descending).
5 Click OK.

Tip: You can also sort a Property column by double-clicking the column header. When you sort properties, a sort indicator appears in the column header.
**Copying and Pasting Cell Data**

If you are adding content to a cell that you will use in other cells, you can copy and paste the cell data to save time.

**Note:** You can copy and paste information from one cell to another within the same column. You cannot copy and paste information across columns.

To copy and paste cell data:

1. **To copy information, perform one of these actions:**
   - Select the cell you want to copy, then right-click and select **Copy**.
   - Select the cell you want to copy, then press `[Ctrl + C]`.

2. **To paste information, perform one of these actions:**
   - Select the cell or column you want to paste the information into, then right-click and select **Paste**.
   - Select the cell or column you want to paste the information into, then press `[Ctrl + V]`.

**Tip:** You can copy a value from one cell and then paste the values in all of the cells in the column. Simply copy the value, then right-click the column header and select Paste.

**Adding and Removing Properties**

You can add or remove properties for a member using the Grid Editor.

To add properties:

1. **Right-click a column, then select Add Property.**
   - The Property List Selector is displayed.

2. **Select the property to add, then click 

3. **Click OK.**
   - The Grid Editor is displayed.

To remove properties, right-click the column of the property you want to remove, then select **Remove Property**.

**Finding Properties**

If you are editing numerous members and properties, you can search for a property that you want to edit.
To find properties:

1. Right-click a column and select **Find Property**.
2. Select the property, then click **OK**.

   The Grid Editor displays with the property column highlighted.

### Closing the Grid Editor

To close the Grid Editor:

1. Click ✂ to save all changes in the Grid Editor.
2. Perform one of these actions:
   - Right-click the Grid Editor tab at the bottom of the screen and select **Close**.
   - Select **File**, **Close**, **Current**.

### Working with Smart Lists (Planning Only)

Smart Lists are custom drop-down lists that users access from data form cells in Planning applications. When clicking into data form cells, users select items from drop-down lists instead of entering data. Users cannot type in cells that contain Smart Lists. Smart Lists display in cells as down arrows that expand when users click into the cells.

For example, you can create a drop-down Smart List called Justification that provides selections for Research, Customer Feedback, and Expansion. When users click into an Account named Reason (which is associated with the Justification Smart List), they click the down arrow, which expands into a drop-down list with these selections: Research, Customer Feedback, and Expansion. Users select a Smart List option as a value for the cell.

Administrators use the Dimension Library to create Smart List dimensions and members, and assign properties. Perform these tasks to create and administer Smart Lists:

- Create a new dimension with Smart List selected as the Dimension Type.
- Create members in the dimension. (The members are the items that display in the drop-down, data form, or grid.)
- Assign properties to the Smart List dimension and members. Assign a Label to the Smart List and Smart List members.
- Optionally:
  - Enable Smart Lists for data forms. See the *Oracle Hyperion Planning Administrator’s Guide*.
  - Use Smart List values in member formulas and business rules.
  - Set how #Missing cells associated with Smart Lists display on data forms and within drop-down lists.
Smart List Dimensions do not need to be associated with the member's dimension. Smart List is a default member property. To remove the association of a Smart List with a member, double-click the Smart List property and delete the Smart List name. To remove a Smart List from a member, right-click the Smart List property field and remove the value.

Creating Smart Lists

To create Smart Lists:

1. In the Dimension Library, select File, then New, then Dimension.
   The Add New Dimension dialog box is displayed.
2. Type the Name, Description, and select the type, SmartList.
   
   **Note:** Enter a unique name containing alphanumeric and underscore characters (for example: Position) and no special characters or spaces. Smart Lists cannot match dimension names. Smart List names can be referenced in formula expressions.

   The Smart List dimension is displayed in the Shared Library.

   Data cells can display only one Smart List. If multiple Smart Lists intersect at cells, set which one takes precedence by setting the data type evaluation order.

   Next, create the members that will display as items in the drop-down list.

3. In the Shared Library, right-click the Smart List dimension and select Create Member, then As Child.
   The New Member dialog box is displayed.
4. Type the member name and click OK.
5. Create additional members, as necessary, for the dimension.

Smart List Names

When using Smart Lists, note these considerations. Smart List names and aliases:

- Must begin with a letter, and can contain letters, numbers, _ (underscore), and $ (dollar sign) characters. They cannot include spaces, or be Java reserved words, such as: abstract, assert, boolean, break, byte, case, catch, char, class, const, continue, default, do, double, else, enum, extends, false, final, finally, float, for, if, goto, implements, import, instanceof, int, interface, long, native, new, null, private, protected, public, return, short, static, strictfp, super, switch, synchronized, this, throw, throws, transient, true, try, void, volatile, while.

- Cannot have the same name as the Smart List dimension, another dimension, or a dimension member.
When Smart List dimensions are upgraded, they are appended with the prefix `sl_`, to ensure that names are unique. (This does not occur when upgrading Smart List member names.)

**Modifying Smart List Dimension Properties**

Use the Property Grid to set Smart List properties.

➢ To set Smart List properties:
1 Select a Smart List dimension.
2 Select the category, Planning. Define the Smart List properties for the dimension:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Enter the text to display when the Smart List is selected. Smart Lists and Smart List members must have a Label assigned. Spaces and special characters are allowed. Smart List labels can reference a resource, which can be translated into different languages. <strong>See the Oracle Hyperion Planning Administrator’s Guide.</strong></td>
</tr>
<tr>
<td>Auto Generate ID</td>
<td>Generate a numeric ID for each Smart List entry. If you do not select this option, you can customize Smart List ID values.</td>
</tr>
<tr>
<td>Start Value</td>
<td>Populates the Value property of the first member in the Smart List. For example, if the Smart List dimension is Justification with Start Value set to 10, the first member added to this list has a value of 10.</td>
</tr>
<tr>
<td>Increment</td>
<td>This value is appended to the value of the last member in the list to determine the value for the selected member. For example: Justification (Start Value=0, Increment=10) Research (Value=0) Customer Feedback (Value=10) Survey (Value=20)</td>
</tr>
<tr>
<td>Display Order</td>
<td>How Smart Lists are sorted in the drop-down list: by ID, Name, or Label</td>
</tr>
<tr>
<td></td>
<td>● <strong>ID</strong>—Unique number that sets the order for the displayed entry.</td>
</tr>
<tr>
<td></td>
<td>● <strong>Name</strong>—Unique alphanumeric name containing alphanumeric and underscore characters (for example: Customer_Feedback) and no special characters or spaces</td>
</tr>
<tr>
<td></td>
<td>● <strong>Label</strong>—Displayed text for the Smart List entry on the drop-down list (for example: Customer Feedback).</td>
</tr>
<tr>
<td>#Missing Data Form Label</td>
<td>Determines how #Missing values are represented in cells associated with Smart Lists. Options: DropDown—Displays the label set in #Missing Drop-Down Label. Grid—Displays #Missing or leaves cells blank, depending on the Display Missing Values As Blank selection for the data form (see the Oracle Hyperion Planning Administrator’s Guide).</td>
</tr>
<tr>
<td></td>
<td>This selection determines what is displayed in the cell when it is not the focus. When the cell is in focus, the Smart List item that is selected from the drop-down is displayed.</td>
</tr>
</tbody>
</table>
### Displaying #Missing with Smart Lists

Administrators set the values that are displayed in Smart Lists and data cells, including what is displayed when there is no data in the cell. When there is no data in a cell, the cell can display no value (that is, the cell is blank), #Missing, or—for cells associated with Smart Lists—another value that you specify.

Use these options to control the display of #Missing in such cells when they are not in focus:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>When designing the data form, select Display Missing Values as Blank. When setting Smart List properties, select Grid.</td>
</tr>
<tr>
<td>#missing</td>
<td>When designing the data form, do not select Display Missing Values as Blank. When setting Smart List properties, select Grid.</td>
</tr>
<tr>
<td>A custom label, such as “No Change”</td>
<td>When setting Smart List properties, enter the custom label in the #Missing Drop-Down Label field (for example, No Change). Select DropDown.</td>
</tr>
</tbody>
</table>

### Viewing Transaction Logs

All operations performed in the Dimension Library are recorded in transaction logs. You can filter logs by date, application, dimension, and property and restrict logs to operations performed in the current session. Each operation is recorded with a time stamp, the user name, the type of action performed, and other relevant information.

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddApplication</td>
<td>Adds an application to a library</td>
</tr>
<tr>
<td>AddDimension</td>
<td>Adds a dimension to a library</td>
</tr>
<tr>
<td>AddDimensionAssociation</td>
<td>Adds a dimension association between two dimensions</td>
</tr>
<tr>
<td>AddLibrary</td>
<td>Adds a library to the system</td>
</tr>
<tr>
<td>AddMember</td>
<td>Adds the specified member to the specified dimension</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AddOrphanMember</td>
<td>Adds an orphan member to a dimension</td>
</tr>
<tr>
<td>AddView</td>
<td>Adds a view object to an application</td>
</tr>
<tr>
<td>AddViewFilter</td>
<td>Adds a view filter to a view</td>
</tr>
<tr>
<td>AddViewTopMember</td>
<td>Adds the top member for a specified view</td>
</tr>
<tr>
<td>AddViewFilterTopMember</td>
<td>Adds a top member to a view filter</td>
</tr>
<tr>
<td>AutomatorRun</td>
<td>Logged action for an Automator run</td>
</tr>
<tr>
<td>ClearApplication</td>
<td>Clears an existing application; deletes data artifacts for the application but does not delete the application record</td>
</tr>
<tr>
<td>ClearDimension</td>
<td>Clears an existing dimension; deletes data artifacts for the dimension but does not delete the dimension record</td>
</tr>
<tr>
<td>CloseLibrary</td>
<td>Logged action for closing a library</td>
</tr>
<tr>
<td>CompareRun</td>
<td>Logged action for a Compare job</td>
</tr>
<tr>
<td>CopyApplication</td>
<td>Copies an existing application</td>
</tr>
<tr>
<td>CopyDimension</td>
<td>Copies an existing dimension</td>
</tr>
<tr>
<td>CopyLibrary</td>
<td>Copies an existing library</td>
</tr>
<tr>
<td>DeleteApplication</td>
<td>Deletes an existing application</td>
</tr>
<tr>
<td>DeleteBranch</td>
<td>Deletes a member and its descendants</td>
</tr>
<tr>
<td>DeleteDimension</td>
<td>Deletes a dimension from a library</td>
</tr>
<tr>
<td>DeleteLibrary</td>
<td>Deletes an existing library</td>
</tr>
<tr>
<td>DeleteMember</td>
<td>Deletes the specified member from the library</td>
</tr>
<tr>
<td>DeleteView</td>
<td>Deletes a view within an application</td>
</tr>
<tr>
<td>ExportRun</td>
<td>Logged action for a export job</td>
</tr>
<tr>
<td>ImportRun</td>
<td>Logged action for a import job</td>
</tr>
<tr>
<td>InsertMember</td>
<td>Inserts the specified member into the specified dimension</td>
</tr>
<tr>
<td>MemberPropertyDataLoss</td>
<td>Loss action for a member property data loss</td>
</tr>
<tr>
<td>MigrateApplication</td>
<td>Migrate application to another server</td>
</tr>
<tr>
<td>MoveMember</td>
<td>Moves the specified member within the dimension</td>
</tr>
<tr>
<td>OpenLibrary</td>
<td>Logged action for opening a library</td>
</tr>
<tr>
<td>RemoveApplicationArrayPropertyValue</td>
<td>Removes (clears) the array value of the specified property of the specified application</td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RemoveApplicationPropertyValue</td>
<td>Removes (clears) the value of the specified property of the specified application</td>
</tr>
<tr>
<td>RemoveDescendantValues</td>
<td>Remove property value for a member’s descendants</td>
</tr>
<tr>
<td>RemoveDimensionArrayPropertyValue</td>
<td>Removes (clears) the array value of the specified property of the specified dimension. The property itself is not deleted because other dimensions may be using it.</td>
</tr>
<tr>
<td>RemoveDimensionAssociation</td>
<td>Removes a dimension association between two dimensions</td>
</tr>
<tr>
<td>RemoveDimensionPropertyValue</td>
<td>Removes (clears) the value of the specified property of the specified dimension. The property itself is not deleted because other dimensions may be using it.</td>
</tr>
<tr>
<td>RemoveDuplicates</td>
<td>Removes (clears) duplicate properties for the specified member</td>
</tr>
<tr>
<td>RemoveLibraryPropertyValue</td>
<td>Removes (clears) the value of the specified property of the specified library. The property itself is not deleted because other libraries may be using it.</td>
</tr>
<tr>
<td>RemoveMember</td>
<td>Removes the specified member from the dimension</td>
</tr>
<tr>
<td>RemoveMemberArrayPropertyValue</td>
<td>Removes (clears) the array value of the specified property of the specified member. The property itself is not deleted because other members may be using it.</td>
</tr>
<tr>
<td>RemoveMemberPropertyValue</td>
<td>Removes (clears) the value of the specified property of the specified member. The property itself is not deleted because other members may be using it.</td>
</tr>
<tr>
<td>RemoveViewFilter</td>
<td>Removes a view filter from an existing application</td>
</tr>
<tr>
<td>RemoveViewFilterTopMember</td>
<td>Remove the top member from the view filter</td>
</tr>
<tr>
<td>TransactionExportRun</td>
<td>Logged action for a transaction query</td>
</tr>
<tr>
<td>UpdateApplicationArrayPropertyValue</td>
<td>Updates the array value of the specified property of the specified application</td>
</tr>
<tr>
<td>UpdateApplicationPropertyValue</td>
<td>Updates the value of the specified property of the specified application</td>
</tr>
<tr>
<td>UpdateDimensionArrayPropertyValue</td>
<td>Updates the array value of the specified property of the specified dimension</td>
</tr>
<tr>
<td>UpdateDimensionPropertyValue</td>
<td>Updates the value of the specified property of the specified dimension</td>
</tr>
<tr>
<td>UpdateLibraryPropertyValue</td>
<td>Updates the value of the specified property of the specified library</td>
</tr>
<tr>
<td>UpdateMemberArrayPropertyValue</td>
<td>Updates the array value of the specified property of the specified member</td>
</tr>
<tr>
<td>UpdateMemberPropertyValue</td>
<td>Updates the value of the specified property of the specified member</td>
</tr>
</tbody>
</table>

To view a transaction log:

1. From the Dimension Library, select View, Download Transaction Logs.
2 Select an application or select Shared Library to view all dimensions in the Shared Library.

**Note:** You must at least select an application or Master by which to filter the transaction log.

3 **Optional:** Select a dimension.

**Note:** Only dimensions for the selected application are displayed in the drop-down list and you can only select one dimension.

4 **Optional:** Click ![Select Members](image.png) to select one or more members to include in the log and click OK.
5 Optional: Click to select one or more properties to include in the log and click OK.

6 Optional: Use the date drop-down lists to select a date range.

7 Optional: Select Filter to current session.

8 Click OK.

9 After the job is submitted, click the link in the message box to go to the exported transaction log.

10 In the Attachments area, click Transaction Export.
Select to open or save the transaction log.

**Note:** Transaction logs use the CSV file extension and can be opened in Microsoft Excel.

The transaction log consists of multiple columns of information. The column display varies, depending upon the criteria that you selected.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TransactionID</td>
<td>Transaction ID associated with one or more transaction actions</td>
</tr>
<tr>
<td>DetailID</td>
<td>Order in which actions are processed within a transaction</td>
</tr>
<tr>
<td>Action</td>
<td>Operation that is logged</td>
</tr>
<tr>
<td>ApplicationID</td>
<td>Generated ID associated with the application artifact</td>
</tr>
<tr>
<td>ApplicationName</td>
<td>Application name</td>
</tr>
<tr>
<td>ClassID</td>
<td>Classification of the artifact being added</td>
</tr>
<tr>
<td>CreatedDateTime</td>
<td>Timestamp of the action</td>
</tr>
<tr>
<td>Description</td>
<td>Description of the action</td>
</tr>
<tr>
<td>DimensionID</td>
<td>Generated ID of the dimension artifact</td>
</tr>
<tr>
<td>DimensionName</td>
<td>Dimension name, in which the action is performed</td>
</tr>
<tr>
<td>FromOrigin</td>
<td>For property updates, the origin of the property value before an update occurs.</td>
</tr>
</tbody>
</table>
### Purging Transaction History

Performance Management Architect creates transactions in the Performance Management Architect database. This database is automatically created during installation and configuration. Since Performance Management Architect does not delete these artifacts, the database size can increase over time. The Performance Management Architect Transaction History Purge Utility enables you to remove transactions from the database to reduce database size.

The Transaction History Purge removes transactions to reduce database size. If you use the utility, you should make a full backup of the Performance Management Architect database before running the utility to keep an audit trail for Sarbanes-Oxley compliance.
Launching the Transaction History Purge Utility

You can run the Transaction History Purge Utility using a command line or by using the Windows Start Menu shortcut, EPMA Transaction History Purge.

**Note:** You must start the Process Manager before running the Transaction History Purge Utility. In Windows, from the Services panel, select Hyperion S9 EPM Architect Process Manager, right-click and select Start or on a command line, enter: `net start HyS9BPMA_ProcessManager`.

**Caution!** This utility deletes transactions from the database. You must be extremely careful and ensure that you have performed a full backup of the Performance Management Architect database before running the Transaction History Purge Utility.

The utility automatically retrieves database connection information (database name, location, login information, and so on) from the Shared Services database so that the cleanup affects the same database that is used by Performance Management Architect. Keep in mind that you cannot run this utility on a remote client. You must run the utility on the Dimension Server Application Server.

To launch the utility:

1. To launch the utility in a graphical user interface, perform one of these actions:
   - Select **Start**, **Programs**, **Oracle EPM System**, **Foundation Services**, **Performance Management Architect**, **EPMA Transaction History Purge**.
   - Navigate to `<HYPERION_HOME>\BPMA\AppServer\DimensionServer\ServerEngine\bin\`. Then, double-click `database_cleanup_utility.exe`.

   The EPMA Transaction History Purge Utility dialog box is displayed.
2 Enter your user name and password that you use to login to Performance Management Architect, then click Log On.

Note: You must have the LCM Administrator security role to purge the transaction history. See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

3 To launch the utility on a command line, open a command prompt, change the directory location to the location of the dimension_server.exe file. For example, C:\Hyperion\BPMA\AppServer\DimensionServer\ServerEngine\bin, then type:
database_cleanup_utility -h
“Working with the Transaction History Purge Utility” on page 112 describes how to use the graphical user interface and also includes important information about the utility. Command line parameters are described in “Using the Transaction History Purge Utility in a Command Window” on page 113.

Enter `database_cleanup_utility -u<user> -p<password>`, where `<user>` is your user name and `<password>` is your password.

### Viewing the Transaction History Purge Logs

The Transaction History Purge Utility generates a log file in `<HYPERION_HOME>/logs/epma\`. The following shows an excerpt of the `Database_Cleanup_Utility_Log.log` file.

```
2009-04-03 17:27:28,484 Connecting to database...
2009-04-03 17:27:31,750 Only items dated April 3, 2009 or earlier will be deleted.
2009-04-03 17:27:31,750 Deleting transactions...
2009-04-03 17:27:36,234 The purge has completed. 129 transactions were deleted.
```

**Tip**: You can also click the Open file button in the EPMA Transaction History Purge Utility dialog box to access the log file after the process runs.

### Working with the Transaction History Purge Utility

The following section describes how to delete transactions using the graphical user interface.
Deleting Transactions

**Caution!** This utility deletes transactions from the database. You must be extremely careful and ensure that you have performed a full backup of the Performance Management Architect database before running the Transaction History Purge Utility. You cannot reverse the deletion of transactions. Be certain before deleting any transactions.

To delete transactions:

1. **In the EPMA Transaction History Purge Utility dialog box, select the criteria to delete the transactions.**
   - Perform one of these actions:
     - Select Dated on or before, then select the date.
     - Select Older than and select the number of days. The maximum setting is 100 days. If you change the value to a number greater than 100, an error message is displayed.

2. **Click Start.**
   - A Warning dialog box is displayed.
   
   **Caution!** Before you click Yes, keep in mind that you cannot cancel the deletion of transactions while in progress.

3. **Click Yes.**
   - When you click the Start button, the utility determines which transactions to delete, and then when you click Yes in the Warning dialog box, it begins to delete all transactions. When you click Yes, the deletion process begins. The controls in the dialog box are inaccessible until the process completes. A summary of the transactions deleted is provided at the end of the process and is included in the log file referenced at the bottom of the dialog box. When the deletion is complete, the dialog box controls are re-enabled.

   **Note:** If you attempt to close the application while the deletion is in-progress, an error message is displayed indicating that if you close the application the current deletion process to be rolled back.

**Using the Transaction History Purge Utility in a Command Window**

When you launch the utility from a command prompt with the -h parameter, a list of valid parameters are listed in the command window. Keep in mind these guidelines:

- Each parameter must be separated by a space.
- If a parameter takes a value, it should not be separated by a space. For example, -d05/08 passes a date.
- Commands are not case sensitive.

To launch the utility in a command window, see “Using the Transaction History Purge Utility in a Command Window” on page 113.
The following table describes each parameter available in the command window:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-a&lt;n&gt;</td>
<td>Specifies a minimum age to delete, where &lt;n&gt; is an integer number of days.</td>
</tr>
<tr>
<td>-d&lt;d&gt;</td>
<td>Specifies a maximum date, where &lt;d&gt; represents the date. The date format should follow the format in the Regional Settings in the Control Panel. The year is not necessary if it is the same as the current year. However, you must specify the month and day. For example, if the current year is 2008, then 9/8 and 09/08 would represent September 8, 2008. The maximum value allowed is 100. If you enter a value greater than 100, an error is logged.</td>
</tr>
<tr>
<td>-np</td>
<td>Suppresses all prompts.</td>
</tr>
<tr>
<td>-h</td>
<td>Displays parameters help.</td>
</tr>
<tr>
<td>-u</td>
<td>Specifies the user name.</td>
</tr>
<tr>
<td>-p</td>
<td>Specifies the password.</td>
</tr>
</tbody>
</table>

You can use multiple parameters to complete the process. Examples of commands are listed below:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>database_cleanup_utility -u&lt;user&gt; -p&lt;password&gt;</td>
<td>Specifies the user name and password. Every command line execution of the utility requires a user name and password, except the -h command to access the utility help text.</td>
</tr>
<tr>
<td>database_cleanup_utility -np</td>
<td>Deletes all applicable transaction with no prompts.</td>
</tr>
<tr>
<td>database_cleanup_utility -d04/08</td>
<td>Deletes applicable transactions dated on or before April 8th of the current year.</td>
</tr>
<tr>
<td>database_cleanup_utility -d04/08/2005</td>
<td>Deletes applicable transactions dated on or before April 8th of 2005 (the year must be specified if the date does not fall within the current year).</td>
</tr>
<tr>
<td>database_cleanup_utility -a50</td>
<td>Deletes applicable transactions older than 50 days.</td>
</tr>
<tr>
<td>database_cleanup_utility -h</td>
<td>Displays the help text.</td>
</tr>
</tbody>
</table>

**Note:** When running the utility on a command line, any errors that occur will display an Exit Code message.

The following exit codes can be displayed in the command line. The following table lists the exit code, the associated number that displays for the code in the command line, and a description.

<table>
<thead>
<tr>
<th>Exit Code</th>
<th>Associated Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>0</td>
<td>The command ran successfully.</td>
</tr>
<tr>
<td>Input Errors</td>
<td>1</td>
<td>The command line parameter that you used is invalid.</td>
</tr>
</tbody>
</table>
### Exit Code Table

<table>
<thead>
<tr>
<th>Exit Code</th>
<th>Associated Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration File Error</td>
<td>2</td>
<td>Problem with the BPMA_Server_Config.xml file. For example, BPMA_Server_Config.xml must be in the same directory as this utility, otherwise an error occurs. Though this file is not needed for database connection information, it still must be present.</td>
</tr>
<tr>
<td>Connection Failure</td>
<td>3</td>
<td>Connection problem accessing the database.</td>
</tr>
<tr>
<td>Process Manager Not Running</td>
<td>4</td>
<td>You must start the Process Manager before launching the Transaction History Purge Utility. See &quot;Using the Transaction History Purge Utility in a Command Window&quot; on page 113 for information on starting the Process Manager using a command line.</td>
</tr>
<tr>
<td>Unknown Error</td>
<td>5</td>
<td>Contact Oracle Support.</td>
</tr>
<tr>
<td>SQL Error</td>
<td>6</td>
<td>An error occurred while attempting to run the purge against the database.</td>
</tr>
</tbody>
</table>

### Scheduling Database Cleanup Tasks

You can schedule the Transaction History Purge Utility to run using the Windows Control Panel.

To schedule tasks, use the Control Panel to open **Scheduled Tasks**. Then add a scheduled task for the Transaction History Purge Utility and follow the instructions in the Scheduled Task Wizard. Make sure to view advanced properties on the last screen of the wizard.

When you view the properties for the scheduled task, you can add parameters at the end of the Run text box. For example, if you add parameters to the end of the string in the Run text box, it may show: `database_cleanup_utility.exe -u<user> -p<password> -a20 -np`, which deletes all applicable transactions older than 20 days without any prompts.

The exit codes and logging capabilities are useful when using Windows Scheduler, since you do not need to be logged in when it runs, and if it fails you can view a log to determine the cause. You can find the log file, `DatabaseCleanupUtility_Log.txt`, in `<HYPERION_HOME>\logs\epma`.

### Native Database Log Considerations

Using this utility can generate a large number of native database log entries. A large number of these entries can significantly increase the storage used by your database. You can use a variety of methods to manage transaction logging space, depending on your database type (Oracle, SQL Server, or DB2).

**Note:** Reclaiming logging space is a task that should be performed by a database administrator.

The following examples show how to reclaim transaction logging space in Oracle and SQL Server.

- Oracle—The following command attempts to resize the Redo log file, "EPMAREdo.log," to 600k.
ALTER DATABASE DATAFILE 'F:\oradata\live\EPMARedo.log' RESIZE 600k;

- SQL Server—The following command decreases the size of the data and log files in a database called "EPMA," with the goal of creating 5 percent free space within each file.

  DBCC SHRINKDATABASE (EPMA, 5);
  GO

**Note:** In DB2, log file size is generally not an issue since it is overwritten if "circular logging" is enabled. If "non-circular logging" is enabled, it can be deleted when DB2 begins to use the next log file in sequence. For additional information, see your DB2 documentation.
Creating Members

You can create members as siblings or children of the selected member. You can create members only in the Dimension Library. If you want to add members to applications, you must first create the members in the Shared Library and then add them to the applications.

Member names must follow product naming requirements. For Planning dimensions, see “Naming Restrictions for Dimensions, Members, and Aliases” on page 537.

For Financial Management dimensions, see Appendix A, “Working with Financial Management Dimensions”. For additional information on creating Profitability and Cost Management members, see the Oracle Hyperion Profitability and Cost Management Administrator’s Guide.

Note: You may be able to enter different characters when creating members in the Dimension Library, but when the member is brought into an application, the application’s naming rules are applied.

To create members:

1. Right-click a member, select Create Member, and then select As Child or As Sibling.
Note: If you right-click on a top member for a dimension, you do not have the option to create a sibling.

2 Enter the member name and click OK.

Working with Shared Members

Sharing members allows alternate hierarchical structures within the Dimension Library. Base members must exist before creating shared members. You can create multiple shared members for a member.

The second instance of any member is tagged as a shared member, with “Shared” in parentheses.

In the following example, the entity Washington is a member of the UnitedStates hierarchy and a member of the Management-Gates hierarchy.

You can create shared members in two ways:

- Copy and paste the shared member as a child or sibling. See “Creating Shared Members by Copying and Pasting” on page 118.

- Insert the shared member using the member selector, which enables you to select members from a different portion of the dimension without losing your position in the Shared Library tree view. See “Creating Shared Members Using the Member Selector” on page 119.

Creating Shared Members by Copying and Pasting

➢ To create shared members:

1 Right-click a member and select Copy.
2 Locate the position in the hierarchy where you want the new member to be, right-click a member and select Paste, As Child or As Sibling.

Creating Shared Members Using the Member Selector

You can use the member selector to choose a member from a different portion of the dimension without losing your position in the Shared Library tree view.

To create shared members:

1 Right-click a member and select Insert Shared Member.
2 Select As Child or As Sibling.

The Member Selector dialog box is displayed.

The member selector enables you to view and select members within a dimension. Expand and collapse members within a dimension using the [+] and [-].

The Member Selector dialog box has two panes—all members in the dimension on the left and selections on the right. The left pane, showing all members available in the dimension, displays the member name and a short description, if available. The right pane, showing selections, displays the member name and the selection type.

You can use the Menu button above each pane to change the columns in the Member Selector.

a. In the left pane, click Show, Count.
The Count column displays in addition to Name and Description. The count column displays the number of child members under the current dimension. This can be a helpful indicator of how long it might take to expand down a branch of the tree.

b. To remove the Count column, click \[\text{Show, Count}\], and select Show, Count.

c. To collapse a dimension, click \[\text{Collapse All}\], and select Collapse All.

**Note:** When you select Collapse All, all members under the dimension or member that you selected are collapsed. When a dimension or member is collapsed, rest the mouse pointer over the artifact to display a ToolTip indicating the number of descendants.

You can also select the Search tab to search for members and use wildcards in your phrase. For example, if you are searching a customer dimension and select to search by Name and type \( Ba** \) in the text box, and click Search, only customer names that start with \( Ba \) display. You can also type \( ! \) in the text box to act as a wildcard. For example, you might not know how to spell a customer name, such as \( Privado, Inc. \), since it could be \( Privado, Pravado, or Provado \). In this case, you could type \( Pr!v \) to find this customer.

d. In the Selections pane, click \[\text{Show}\], and modify the columns.

3 In the list of available dimensions and members on the left, select a member to add as shared and click \[\text{Add}\].

4 To deselect a member from the list of shared members, click \[\text{Remove}\].

5 To add special options for the member, right-click a member and select an option:

- Member
- Children
- IChildren
- Descendants
- IDescendants
- Siblings
- ISiblings
- Parent
- IParent
- Ancestors
- IAncestors

In the above options, “I” indicates inclusive. For example, “IChildren” adds all children for the member, including the selected member, and “IDescendants” adds all the descendants.
including the selected member. If you select “Children,” the selected member is not included and only its children are included.

The member is moved to the right and displays the option you selected in the Selection Type column. For example, “Descendants” displays in the Selection Type column.

Tip: To deselect all members from the list of selections, click .

6 Click OK.

**Shared Members within Planning Applications**

Sharing members allows alternate rollup structures within Planning applications. A base member must exist before you can create a shared member. You can create multiple shared members for the base member. A base member must display before its shared members in position from top to bottom.

Shared members are allowed for Account, Entity, Scenario, Version, Period, and custom dimensions. Shared members share some property definitions with base members, such as member name, alias name, base currency, and plan types for which members are valid. The Data Storage property for shared members must be Shared or ShareData. Custom properties, custom property values, and member formulas are not allowed for shared members.

Shared members cannot be moved to other parent members. You must delete shared members and re-create them under different parent members. Shared members must be at the lowest level (level zero) in the hierarchy, and cannot have children. (The base member need not be level
zero.) You can enter data in shared members; values are stored with base members. With shared members:

* A base member cannot be the parent of the shared member. The shared member can be anywhere else in the dimension hierarchy.
* A shared member and its base member must have the same name.
* You must set data storage for shared members to ShareData in Performance Management Architect. Otherwise, shared members are not added when the application is deployed to Planning.

In dimension hierarchies for member selection in Oracle’s Hyperion® Business Rules and Oracle Hyperion Smart View for Office, Fusion Edition, shared members are displayed similarly to base members. For Business Rules, there is no labeling distinction, so you might not be able to select shared members for actions such as Copy Data.

**Setting up Dynamic Time Series Members**

You can use Dynamic Time Series (DTS) members to create reports that show period-to-date data, such as quarter-to-date expenses. DTS members are used with members of the Period dimension. For example, to calculate quarter-to-date values, you can enable the Q-T-D member and associate it with generation number 2. You can then use the Q-T-D DTS member to calculate monthly values up to the current month in the quarter.

Predefined DTS members:

* Y-T-D: Year-to-date
* H-T-D: History-to-date
* S-T-D: Season-to-date
* Q-T-D: Quarter-to-date
* P-T-D: Period-to-date
* M-T-D: Month-to-date
* W-T-D: Week-to-date
* D-T-D: Day-to-date

**Caution!** If you are using the Y-T-D or P-T-D member, you must rename the Year or Period dimension so it does not conflict with the reserved Dynamic Time Series generation names, Year and Period. Before using Y-T-D, rename the Year dimension; before using P-T-D, rename Period. After doing so, you must update all application artifacts affected by these changes, such as member formulas and business rules, and any reports that reference the dimension by name.

The DTS members provide up to eight levels of period-to-date reporting. Your data and database outline determine which members you can use. For example, if the database contains hourly,
daily, weekly, monthly, quarterly, and yearly data, you can report day-to-date (D-T-D), week-
to-date (W-T-D), month-to-date (M-T-D), quarter-to-date (Q-T-D), and year-to-date (Y-T-
D) information. If the database contains monthly data for the past 5 years, you can report year-
to-date (Y-T-D) and history-to-date (H-T-D) information, up to a specific year. If the database
tracks data for seasonal time periods, you can report period-to-date (P-T-D) or season-to-date
(S-T-D) information.

Avoid assigning time balance properties (such as First and Average) to members set for dynamic
calculations if you plan to use the members in Dynamic Time Series calculations. Doing so may
retrieve incorrect values for parent members in your accounts dimension. For detailed
information, see the Oracle Essbase Database Administrator’s Guide.

You can use the DTS Manager dialog box to set up DTS members with these options:
DTSEnabled, DTS Generation, and Alias. (Setting the DTS properties for non-DTS members has
no effect.) Additional Period properties are not applicable to DTS members.

Considerations for using DTS members with Performance Management Architect:

- DTS members must be level 0 members and children of the root member (such as Period).
- The Period Type property for DTS members is Dynamic Time Period.
- For members enabled as DTS, a DTS Generation must be selected.
- If you are using Y-T-D, the Year dimension cannot be named Year.
- If you are using P-T-D, the Period dimension cannot be named Period.
- DTS members do not display as actual members in the Period dimension hierarchy. For
  Planning, DTS members are enabled in Planning and Essbase after the application is
deployed.

To set up DTS members:

1. From the Dimension Library, right-click the Period dimension. Then, select DTS Manager.

2. In the DTS Manager dialog box, select Enabled for the DTS series to use: Y-T-D, H-T-D, S-T-D,
   Q-T-D, P-T-D, M-T-D, W-T-D, or D-T-D.

3. Select a generation.
   You cannot associate DTS members with the highest generation (the dimension root).
Optional: If the dimension is associated with an alias, select an alias.

Click Save.

Renaming Members

You can rename members in the Dimension Library. Keep in mind these guidelines (organized by the application type):

All Applications

- You cannot rename system members—members with names displayed in brackets [

Consolidation (Financial Management)

- For Financial Management applications, renaming only applies to Performance Management Architect, not Classic Administration features. After a rename, these artifacts are not updated automatically in Financial Management:
  - Rules
  - Member Lists
  - Web Data Entry Forms
  - Data Grids
  - Reports
  - POV

- Period, Year, and View members should not be renamed after the first successful deployment of the application

- If the default currency member is renamed, the application property, Default Currency, must be manually updated for existing Financial Management applications

Planning

- You cannot rename Currency members
- You cannot rename Year members

For Profitability applications, if you rename members after the initial deployment, you must redeploy the application.

Note: When you deploy applications, the log file notes all renamed members and all items that are not automatically updated.

To rename members:

1. Right-click a member and select Rename Member.

   The Rename Member dialog box is displayed.

2. Enter the name, then click OK.
Removing and Deleting Members

You can remove and delete members, including shared members, from the Shared Library hierarchy.

To remove members, see “Removing Members” on page 125.
To delete members, see “Deleting Members” on page 125.

Removing Members

You can remove members, including shared members, from the Shared Library hierarchy. When you remove local members, the member becomes an orphan. When you remove local members, the member and all of its descendants are removed from the hierarchy and are moved to the orphan area as individual members without a hierarchical structure. When you remove a shared member, the member is removed from the alternate hierarchy and does not become an orphan. The same member in other hierarchy structures is not removed.

To remove members:

1 In the Dimension Library, right-click a member and select Remove Member.

Note: You can use the [Ctrl] and [Shift] keys to select multiple members.

2 Click Yes to confirm.

Deleting Members

You can remove members, including shared members, from the Shared Library hierarchy and reuse them later. Orphan members are created when you remove members from the hierarchy. When you remove members, the member and all of its descendants are removed from the hierarchy and are moved to the orphan area as individual members without a hierarchy structure. When you remove a shared member, the member is removed from the alternate hierarchy and does not become an orphan. The same member in other hierarchy structures is not removed.

You can delete members, including shared members, from the Shared Library hierarchy. When you delete a member, the member and all of its descendants are deleted from the hierarchy and from all views. When you delete a shared member, only that member is deleted. The same member in other hierarchy structures is not deleted.

To delete members:

1 In the Dimension Library, right-click a member and select Delete Member.

Note: You can use the [Ctrl] and [Shift] keys to select multiple members to delete.

2 Click Yes to confirm.
Excluding and Deleting Planning Members

Each data value in Planning is identified by a set of dimension members and a plan type. Excluding dimension members from Performance Management Architect applications can translate to a delete action on deployment. Hence, excluding dimension members can result in data loss when redeploying.

On redeployment, a Planning application is refreshed from Performance Management Architect, and all dimensions used in the application are refreshed with their current structure in Performance Management Architect. Redeployment refreshes all dimensions and their members, whether or not changes have occurred.

When excluded members are used elsewhere (such as a selection in a data form), their associations are removed. Before excluding members from an application, use the Planning Show Usage feature within Planning to determine where members are used in the application and review the implications of excluding dimension members. For information about the Show Usage feature, see the Oracle Hyperion Planning Administrator’s Guide.

When a member is excluded from a dimension in an Performance Management Architect application and the application is deployed to Planning, the member is deleted from that dimension in Planning. This also deletes any associated supporting detail, data, and references to the member. For example:

- Excluding a Scenario, Version, or Entity dimension member deletes a planning unit and all of its history (data) and annotations.
- Excluding a member referenced by data forms changes the data form definition so it uses only the root dimension member. This may result in loss of access permission or cause no data to be displayed in a data form.
- Excluding a currency dimension member that is referenced by an entity changes the entity dimension so it uses the default currency for the application in Performance Management Architect.
- Excluding a currency member that is referenced as a triangulation currency removes the triangulation.

Custom dimensions and attribute dimensions that are excluded from an application in Performance Management Architect are not deleted from Planning during deployment. However, when members for these dimensions are excluded from an application in Performance Management Architect, they are deleted from Planning during deployment.

To improve performance when deleting entities, first exclude planning units for the subtree (by excluding the root member) for all scenarios and versions. After deleting entity members, you must update and validate business rules, reports, and data forms.

Finding Members

You can search for members in the Dimension Library.
To find members:

1. Perform one of these actions to display the Find Members dialog box:
   - Click .
   - Right-click a dimension and click **Find Members**.
   - Select **Edit, Search**.

2. Select to search by the member: Name, Alias, or Property.

3. Enter the value.

   **Note:** Enter alpha-numeric characters only. You can also enter wildcard characters, however other special characters are not supported.

4. Select an option to view the results:
   - **List View**—replaces the Property Grid and lists all members in the Member Find pane.
   - **Navigation Button**—displays the first member in the Shared Library pane (selected). You can use navigation buttons on the Standard toolbar to move to the next or previous member.

   For example, if you searched for the member, “Budget,” using the Navigation Button option, the first member found is automatically selected in the Shared Library, then you can click to search for the next occurrence of “Budget,” continuing to click Next to search for the next occurrence. If you want to navigate to the previous occurrence, you can click .

5. Click **OK**.

If you selected List View, the search results replace the Property Grid. You can double-click the member in the Member Find pane to locate the member in the hierarchy. When you double-click the member, the dimension that contains the member automatically expands in the Dimension Library.
If you selected the Navigation Button option, the dimension that contains the member automatically expands in the Dimension Library. You can select the member in the Shared Library to view the properties in the Property Grid.

6  **Optional:** To reapply a search, click  

The information you entered previously is saved in the Search Members dialog box.

7  **Optional:** To clear a search, click  

---

128  Working with Members
8 Optional: To refresh the artifacts displayed in a search, click .

9 Click to close the Member Find.

Reordering Children Members

You can reorder children in the Dimension Library.

To reorder children:

1 Drag a member up or down to change the order or right-click the dimension where you want to reorder the children, then, select Reorder Children.

The Reorder Children dialog box is displayed.

Note: For Profitability and Cost Management models, you must reorder the list of members for all business dimensions in the model to display NoMember as the last member; otherwise, validation of the model will fail. This step is not required for systems dimensions, such as Alias, AllocationType, Measures, Periods, Scenarios or Years.

2 Use or to change the order of the children.

3 Click OK.

Managing Orphan Members

You can remove members, including shared members, from the Shared Library hierarchy and reuse them later. Orphan members are created when you remove local members from the hierarchy. When you remove local members, the member and all of its descendants are removed
from the hierarchy and are moved to the orphan area as individual members without a hierarchy structure. When you remove a shared member, the member is removed from the alternate hierarchy and does not become an orphan. The same member in other hierarchy structures is not removed.

You can view orphan members and also permanently delete orphan members.

**Viewing Orphan Members**

➤ To view orphan members, right-click a dimension and select **Orphan Members**.

The list of orphan members replaces the Property Grid.

**Deleting Orphan Members**

➤ To delete orphan members, right-click the member in the Orphan Members list and select **Delete Orphan Member**.

The orphan member is permanently deleted.

**Editing Property Values**

When a dimension member is created, it takes on a default set of properties and property values. Properties are organized by category.

For example, the following properties are displayed for Test_Account when the category is set to Planning:

<table>
<thead>
<tr>
<th>Properties of Test_Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category: Planning</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Property</td>
</tr>
<tr>
<td>Two Pass Calculation</td>
</tr>
<tr>
<td>Valid for Plan1</td>
</tr>
<tr>
<td>Valid for Plan2</td>
</tr>
<tr>
<td>Valid for Plan3</td>
</tr>
<tr>
<td>Valid for Workforce</td>
</tr>
<tr>
<td>Valid for Capital Asset Plan</td>
</tr>
<tr>
<td>Data Storage</td>
</tr>
</tbody>
</table>

Properties, valid property values, and default values are defined in the following appendixes:

- **Appendix A, “Working with Financial Management Dimensions”**
- **Appendix B, “Working with Planning Dimensions”**
Property values are in the following forms:

- **String and Memo**—Enter text.
- **Integer**—Enter a number.
- **Boolean**—Select True or deselect for False.
- **Member**—Click and select a member.
- **Drop-down list**—Select an item.
- **String Map**—Map an Alias property to an Alias dimension.

To edit property values:

1. Double-click a cell in the Value column of the property to edit.
2. Modify the value for the property.

**Note:** When you modify a value, the cell changes color.

3. Click 

The property editor displays an icon to the right of each property. Each icon indicates a type of property:

- Default
- User-defined
- Derived
- Inherited

**Finding Properties**

Some cells may not display a default property, in this case, you can use the Property Selector dialog box to choose a property.

To find a property:

1. In the Property Grid, right-click an empty cell and select Find Property.

   The Property Selector dialog box is displayed.
2 Select the property, then click OK.

Working with User-Defined Attributes

You can use user-defined attributes (UDAs)—words or phrases describing a characteristic of members—within calculation scripts, member formulas, and reports so that they return lists of members associated with the specified UDA. For example, if you have a Product dimension with various product members, you could create a UDA called New Products and base certain calculations only on new products. For information on creating and using UDAs, see the Oracle Hyperion Essbase Database Administrator’s Guide and Online Help.

Creating UDAs is a three-step process:
1. Create one or more UDA dimensions. See “User-Defined Attribute Dimensions” on page 80.
2. Create a dimension association between the UDA property and the UDA dimension.
3. Create UDA members.
Creating Associations

Before you create user-defined attributes, you must associate the dimension in which you want to create UDAs in to a UDA dimension. Creating an association with the UDA dimension enables you to reuse the UDAs in multiple dimensions.

Note: If you have previously associated this dimension to a UDA dimension, it is not necessary to follow these steps prior to creating UDAs.

To create a dimension association:
1. Expand the dimension and select the member for which you want to create a user-defined attribute.
2. In the Property Grid, double-click UDA, then click .

Note: If you do not have the dimension associated with a UDA dimension, the Create Association - Warning dialog box is displayed. To add user-defined attributes for this member, you must first create a dimension association.
3. Click Yes to create an association.
   The Create New Association dialog box is displayed.
4. Select the UDA property, optionally add a description, then select a UDA dimension.

Creating User-Defined Attributes

You can create UDAs using one of these options:

- Add members to a UDA dimension. See “Creating Members” on page 117.
- Add members using the UDA Selection dialog box, accessed via the Property Grid.

To create UDA members via the Property Grid:
1. In the Property Grid, double-click UDA, then click .
   The UDA Selection dialog box is displayed.
2. To create a UDA, click Add.
   The Add New UDA Members dialog box is displayed.
3. Enter the UDA name.
4. Optional: To add multiple UDAs, perform these actions:
   - Select Create Multiple Members
   - Enter the UDA names, separated by a comma. For example, Spring Collection, Summer Collection, Fall Collection, Winter Collection. In this example, four new UDAs are created.
5. Click OK.
The UDA Selection dialog box is displayed.

6 Perform one of these actions:

- Select one or more UDA members on the left and click.
- To add all UDA members, click.
- To remove one or more members from the Select UDA members list, select the members and click.
- To remove all members from the Select UDA members list, click.

7 Click Save.

The UDAs are displayed in the UDA property and as members in the UDA dimension in which you created the association with for the UDA property.

Deleting User-Defined Attributes

To delete UDAs, perform one of these actions:

- In the UDA Selection dialog box:
  1. Select one or more members in the UDA Selection dialog box.
  2. Right-click and select Delete Members.

- In the Dimension Library:
  1. Expand the UDA dimension that includes the member(s) you want to remove.
  2. Right-click the member, select Delete Member.
  3. Click Yes.

You cannot delete UDAs referenced by another member. You must first remove the UDA from the referenced member using the UDA Selection dialog box that you access in the Property Grid.

Working with Member Formulas

You can define member formulas in the Property Grid for Planning, Profitability, Essbase (ASO), and Essbase (BSO) categories. Member formulas can combine operators, calculation functions, dimension and member names, and numeric constants to perform calculations on members. Member formulas can also include:

- Operator type, function, value, member name, UDA, and so on that are allowed in Essbase formulas (see the Oracle Essbase Database Administrator’s Guide and Online Help)
- Predefined formula expressions—including Smart List values—that expand into a formula or value upon database refresh
To define member formulas:

1. Select the dimension member to add or change a formula.

   **Note:** The Member Formula property displays in the following categories: Planning, Essbase (ASO), and Essbase (BSO).

2. In the Property Grid, double-click **Member Formula**.

3. Click ![ … ]

   The Memo Editor dialog box is displayed.

   See the *Oracle Essbase Database Administrator’s Guide* for syntax, rules, and usage on Essbase formulas.

4. To wrap the formula text, click **Word Wrap**.

5. Click **OK**.

**Validating Formulas**

You can only validate member formulas after you deploy an application.

To validate member formulas:

1. Double-click the member formula to validate.

2. Click ![ … ]

   The Memo Editor dialog box is displayed.

3. Click **Validate**.

4. If necessary, edit the formula. When finished, click **OK**.

**Working with Formula Expressions**

Member formulas support Essbase native formulas and formula expressions that are evaluated and expanded into Essbase code blocks when the database is refreshed. In these expressions, you can address Smart Lists by name, which are replaced with their numerical values in calculations.

You can include predefined formula expressions in member formulas, and test them after you deploy an application using the Validate button in the Memo Editor. You can also load them using Oracle’s Hyperion® Application Link or Shared Services.

You can update the dimension outline without updating all the business rules and calc scripts that depend on the outline. Calculations become more independent of specifics in the outline. Performance is not decreased when you use formula expressions because they are run only when you refresh the database.

To use a formula expression in a member formula:

1. Select the dimension member to add or change a formula.
Double-click **Member Formula**, then click .

In the Memo Editor dialog box, define formulas for the member.

You can include formula expressions and Essbase native formulas in the member formula. See the *Oracle Essbase Database Administrator’s Guide* for syntax, rules, and usage on Essbase native formulas.

Planning provides predefined formula expressions that you can use in member formulas. You cannot edit or create your own formula expressions. See “Formula Expressions” on page 136.

Click **OK**.

**Prerequisites**

Before using formula expressions in member formulas, you should understand Essbase formulas and calculation and the application outline. See the *Oracle Essbase Database Administrator’s Guide*.

**Formula Expressions**

Formula expressions can include these predefined variables and functions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenInputValueBlock</td>
<td>Generates an IF statement if the application is a multi-currency application, or an empty string if it is one currency application. Used with CloseInputValueBlock.</td>
</tr>
<tr>
<td>CloseInputValueBlock</td>
<td>Generates an End IF statement if the application is a multi-currency application, or an empty string if it is one currency application. Used with OpenInputValueBlock.</td>
</tr>
<tr>
<td>NumberOfPeriodsInYear</td>
<td>Returns the number of time periods in the year</td>
</tr>
<tr>
<td>NumberOfYears</td>
<td>Returns the number of years in the application</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension(dimTag)</td>
<td>Returns the name of a predefined dimension. The dimtags are:</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_PERIOD</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_YEAR</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_ACCOUNT</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_ENTITY</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_SCENARIO</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_VERSION</td>
</tr>
<tr>
<td></td>
<td>• DIM_NAME_CURRENCY</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| Period(periodName) | Returns the specified period. The periodName options are:  
  - FIRST_QTR_PERIOD  
  - SECOND_QTR_PERIOD  
  - THIRD_QTR_PERIOD  
  - FOURTH_QTR_PERIOD  
  - FIRST_PERIOD  
  - LAST_PERIOD |
| CrossRef(accountName) | Generates a cross reference for the account |
| CrossRef(accountName, prefix) | Generates a cross-reference for the account. The account name contains a prefix that you define. The default prefix is No, followed by a blank space and the account name, for example, No Salary. |
| getCalendarTPIndex() | Generates a member formula that returns an index for the time period; the index is based on the calendar year. |
| getFiscalTPIndex() | Generates a member formula that returns an index for the time period; the index is based on the fiscal year. |
| CYTD(memberName) | Generates a calendar year-to-date formula for the member |
| CYTD(memberName, calTpIndexName, fiscalTpIndexName) | Generates a calendar year-to-date formula for the member, and the time period index based on the calendar year and fiscal year. Use when members are renamed. The default member names are “Cal TP-Index” and “Fiscal TP-Index” |

**Syntax**

Formula expressions support functions and variables. Follow these syntax rules for functions and variables when you create formula expressions:

- Enclose variables or properties with square brackets, [ ]. If you omit square brackets, the variable is treated as a native variable.
- Enclose member names with quotation marks (for example, “Account 200”).
- Characters in variables are case-insensitive, but cannot have extra spaces or characters such as the underscore ( _ ).
- You can include subcalls to other functions within an expression.
- Do not enter text where a number is required.
- The order of the outline is important in a member formula. For example, do not reference a value that has not been calculated yet.

**Including Smart List Values as Variables**

You can include a Smart List as a variable in a formula expression, such as the formula expression, “Status”= [Status.Departed]
“Status” is the member name, Status is the Smart List dimension name, and Departed is a Smart List member name. If the Smart List value for Departed is 2, Essbase replaces Status.Departed with 2 in the member formula (Planning treats Smart Lists as text and Essbase treats Smart Lists as numbers). If the Smart List value for Departed is 2, Essbase replaces Status.Departed with 2 in the calculation and stores 2 in the database.

Write Smart Lists in this format: [SmartListDimensionName.SmartListMemberName]

Understanding Common Errors

Follow the rules of syntax carefully. If formula expression syntax contains errors, error messages are returned when you deploy an application. To get information about error messages, view your Planning Application Server log. The most common error message is “Failed to execute.” This occurs when you use parameters in the expression incorrectly. These actions cause “Failed to execute” error messages:

- Entering the wrong number of parameters in the formula expression
- Misspelling member names, functions, or variable names
- Not surrounding member names with quotation marks
- Including numbers where strings are required

See the Oracle Hyperion Planning Administrator’s Guide.

Working with Members in Applications

As you create applications, you can add only certain members to applications, exclude members, and set the base member. For information on creating applications, see Chapter 6, “Building Applications.”

Adding Members to Applications

You can narrow the results that display in an application by using a subset of a dimension. For example, you may want to show only specific members in an application, such as a product or region. When you add only certain members, the application results are narrowed to these members. This is extremely helpful if you have dimensions containing numerous members and you only need to show data for a few members.

To add members to an application:

1. In the Shared Library, right-click a dimension and select Add to App View.

The Member Selector dialog box is displayed.
The member selector enables you to filter members within a dimension. Expand and collapse members within a dimension using the [+] and [-].

The Member Selector dialog box has two panes—all members in the dimension on the left and selections in the application on the right. The left pane, showing all members available in the dimension, displays the member name and a short description, if available. The right pane, showing selections for the application, displays the member name and the selection type. In new applications, all members display in the selections pane by default.

You can use the Menu button above each pane to change the columns in the Member Selector.

a. In the left pane, click ![Show, Count].

The Count column displays in addition to Name and Description. The count column displays the number of child members under the current dimension. This can be a helpful indicator of how long it might take to expand down a branch of the tree.

b. To remove the Count column, click ![Show, Count], and select ![Show, Count].

c. To collapse a dimension, click ![Collapse All].

Note: When you select Collapse All, all members under the dimension or member that you selected are collapsed. When a dimension or member is collapsed, rest the mouse pointer over the artifact to display a ToolTip indicating the number of descendants.

d. In the Selections pane, click ![Show], and modify the columns.
2. In the list of available dimensions and members on the left, select a member to filter by and click 

3. To deselected a member from the list of members to filter by, click 

You can also right-click to obtain additional options for the filter. For example, you may want to filter on all siblings of a member.

4. Right-click a member in the list of members available in the dimension. Choose an option:
   - Member
   - Children
   - Descendants
   - Siblings
   - Parent
   - Ancestors
   - Level 0 (Base)
   - Inclusive

The member is moved to the right and displays the option you selected in the Selection Type column. For example, “Descendants” displays in the Selection Type column.

Tip: You can right-click a member in the list of selections to change the designation. For example, you can change “Children” to “Descendants.”

5. Continue to add members to the filter. (Members that the application will be filtered by appear on the right.)
Tip: To deselect all members from the list of selections, click .

6 In the Selections pane, you can select a member and click and to move a member up or down.

7 When finished, click OK.

Selecting Top Members

The Select Top Members feature is similar to the Add to App View feature. Adding members to the application, as described in “Adding Members to Applications” on page 138, pushes only the members you want into the application from the Shared Library. Whereas selecting top members pushes the entire dimension into the application, then you can exclude members by picking one or more "top" members. For example, if you have an Entity dimension with a geographical hierarchy with all geographies and you want an application to contain only a country–specific structure. For the shared dimension in the application you can select a country such as Germany, as a top–level member. Similarly you can select other top members from a functional hierarchy. When you select a top member you can also specify if you want just the member, with children, or all the descendants.

Note: A top member does not need to be at the highest level. You can select a child member as a top member and then if you add children in the Shared Library, or change them, it is reflected in the application.

To select a top member:

1 In an application, right-click a shared dimension and choose Select Top Members.
   The Member Selector dialog box is displayed.

2 Select a member on the left, then click to move the member to the Selections area.

3 Click OK.

Excluding Members

Members can be excluded if you previously included them in selections when defining the member filter for the dimension.

When you exclude a member, a property is automatically set to ensure that the member no longer appears in the application. Excluding a member does not remove existing property values set for the member or its descendants. If you later add the member to the application, the property values are retained, just as they were before you excluded it.

If you have a Planning and Financial Management product installation, and create a Planning application, you may need to exclude unnecessary Financial Management system members. You should select all the Financial Management system members, displayed with square brackets, such as [None] and [Active], and exclude them. For example, in the Accounts dimension, when
creating a Planning application, you would exclude all items under Account except Liabilities and Intangible Assets.

➤ To exclude a member, in the application, right-click the member to exclude and select Exclude Member.

### Showing Excluded Members

➤ To show excluded members:

1. In the application, right-click the dimension and select Show Excluded Members.

   The Exclusions dialog box is displayed.

   ![Exclusions dialog box]

2. To show the excluded members in the application, select the member and select Show. Otherwise, click Cancel.

   The excluded member is displayed in the application.

### Setting the Base Member

Setting the base member enables you to exclude any of the children under the parent. For example, in the Entity roll up, Europe has the children of Italy and United Kingdom, if you make Europe the base for this roll up, then Italy and United Kingdom are no longer visible.

**Note:** The Set Base Member feature is not related to shared members.

➤ To set the base member, in the application, right-click the member, select Set as base member.

➤ To remove the base member setting, right-click the base member and select Enable Descendants.
About Applications

The Application Library enables you to view, create, validate, and deploy Performance Management Architect applications to Hyperion financial applications. Applications contain dimensions and dimension attributes that are designed to meet financial management and planning needs. Each application contains accounts, entities, scenarios, and other dimension elements.

As the application creator, you can create unlimited numbers of applications. For example, you can create applications for the following purposes:

- by cost center, to budget operating expenses
- by product line, to plan revenues
- to report on tax data
- to report on Security and Exchange Commission data

To open the Application Library, select Navigate, Administer, Application Library.

Workflow for Creating Applications

The following sections provide information on creating different types of applications:

- Consolidation—See “Creating Consolidation Applications” on page 145.
Planning—See “Creating Planning Applications” on page 153.

Profitability—See “Creating Profitability and Cost Management Applications” on page 166.

Essbase—See “Creating Essbase Applications” on page 176.

Generic—See “Creating Generic Applications” on page 178.

For information on prerequisites, see “Prerequisites” on page 144.

**Manual Workflow**

Using the manual method, you can create blank applications and define the application in seven steps:

1. In the application wizard select an application type, then select Create Blank Application.
2. Drag dimensions (or dimension hierarchy subsets) from the Shared Library to the application or create local dimensions in the application.
3. Modify dimension properties (only if the application properties differ from the Shared Library properties).
4. Activate all dimension associations.
5. Validate the application.
6. Deploy the application to the Hyperion product environment.
7. Define access permissions. See the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.

**Application Wizard Workflow**

The application wizard makes it easy to create applications and guides you through the following screens:

- **Application Type**—enables you to enter the name, select the type, and enter a description. See “Selecting the Application Type” on page 145. Depending on the application type, additional options display.
- **Dimension Selection**—enables you to select or create dimensions. See “Selecting Dimensions” on page 146.
- **Application Settings**—enables you to associate dimensions, set the dimension alias, and modify other application properties. See “Modifying the Application Settings” on page 151.

**Prerequisites**

To create applications, you must have the Application Creator global role for your Hyperion product (Financial Management, Profitability and Cost Management, Planning, Essbase (ASO),
or Essbase (BSO)). For information on creating or assigning global roles, see the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.

Before you create applications, complete the following tasks:

- Install and configure Shared Services.
- Configure the product in which you plan to deploy applications. (Configuration includes creating the product instance and the data source.)
- **Optional**: In Performance Management Architect, create a profile and load dimensions into the Shared Library. See Chapter 3, “Importing Metadata.”

**Note:** For all application types, you cannot name an application “Master.” The application name, “Master,” is a reserved name in Performance Management Architect. If you inadvertently name an application “Master,” an error message will display indicating that the application exists.

### Creating Consolidation Applications

You can create Consolidation applications using the application wizard. The following sections provide step-by-step information on creating Consolidation applications:

- “Selecting the Application Type” on page 145
- “Selecting Dimensions” on page 146
- “Manually Adding Dimensions” on page 147
- “Adding Dimensions Using the Wizard” on page 149
- “Modifying the Application Settings” on page 151
- “Validating and Deploying” on page 152

### Selecting the Application Type

The following steps describe creating a Consolidation application.

1. To create Consolidation applications:
2. Select **File**, **New**, **Application**.
3. Enter the application name.
   - Names must not contain any special characters and no more than 10 characters, no spaces, and cannot begin with HFM, HSV, HSX, or a number.
4. Select **Consolidation**.
5. Enter a description.
   - Descriptions cannot contain special characters, including “&” (ampersands), and more than 40 characters.
5 **Optional**: Select *Create Blank Application* to create an empty application and use the Dimension Library to drag and drop dimensions into the application. See “Manually Adding Dimensions” on page 147.

6 **Optional**: Select *Auto Create Local Dimensions*.

Selecting Auto Create Local Dimensions automatically creates new dimensions for all dimensions that are required in the application. The dimension name for each new dimension is identical to the dimension type with (New) in parentheses. Automatically creating local dimensions helps save time since it populates the required dimensions necessary to create the application.

7 **Perform these actions**:
   - Enter the Default Currency
     
     Currency codes are three letters. Below is a list of several supported currency codes:
     - USD—US dollar
     - EUR—European Union Euro
     - FRF—France franc
     - DEM—Germany deutsche mark
     - AUD—Australia dollar
   - Enter the Default Rate for Balance Accounts.
     
     Specifies the account that contains the translation rate to use for ASSET or LIABILITY accounts.
   - Enter the Default Rate for Flow Accounts.
     
     Specifies the account that contains the translation rate to use for REVENUE or EXPENSE accounts.

8 **Perform one of these actions**:
   - If creating the application manually, click *Finish*.
     
     The Dimension Library is displayed.
   - If using the wizard, click *Next*.
     
     The Select Dimensions screen is displayed.

### Selecting Dimensions

The next step in creating an application is to add dimensions to the application. Consolidation applications must contain the following dimension instances:

- 1 Scenario
- 1 Year
- 1 View
- 1 Period
- 1 Entity
- 1 Value
- 1 Account
- 1 ICP
- 4 Generic (Each one has to be mapped to a different custom dimension 1 through 4)
- 1 Security Class (Optional)
- 1 Alias (Optional)
  The alias dimension should contain no more than 10 members.
- 1 Currency
- 1 Consolidation Method

Tip: If you use the wizard to create an application, all required dimensions are automatically shown on the Dimension Selection screen.

If you created a blank application, see “Manually Adding Dimensions” on page 147. If you are using the wizard, see “Adding Dimensions Using the Wizard” on page 149.

**Manually Adding Dimensions**

When you create blank applications, you use the Dimension Library to select dimensions. The Dimension Library has three panes:

- **Shared Library**—Displays on the left and displays all dimensions currently available in the Shared Library.
  For information on loading dimensions into the Dimension Library, see Chapter 3, “Importing Metadata.”
- **Application**—Appears in the middle and when expanded, lists the names of all dimensions in the current application.
- **Property Grid**—Displays on the right and displays the properties of the selected dimension or member.
  For information on editing properties, see “Editing Property Values” on page 130.
To add dimensions to applications:

1. Drag the dimensions from the Shared Library to the application.
   The Copy Dimension dialog box is displayed.

2. Select Local Dimension or Shared Dimension.

Tip: To add only members to an application, in the Shared Library, right-click the dimension and select Add to App View. See “Adding Members to Applications” on page 138.

For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.

The expanded application lists all dimensions.
Tip: If you add a member to the Shared Library and include the dimension in the application, you can click and the new member will display in the application.

Adding Dimensions Using the Wizard

When you use the application wizard, all required dimensions are automatically displayed. If there is an exact match, it automatically populates the dimension column for the dimension type. Dimension types are automatically categorized and displayed with a shaded heading. For example, Primary Dimensions, Custom Dimensions, and Other Dimensions. Primary dimensions are required.

If you selected Auto Create Local Dimensions, new local dimensions are created for each required dimension. The name of each new dimension is the same as the dimension type, with (New) in parentheses. For example, Account (New).

To define dimensions:

1. To map a dimension type to a dimension, click [Select] in the Dimension column.
   
   If a required dimension type matches to a dimension in the Dimension Library, the dimension name displays in the Dimension column.

2. Select a dimension.
The dimensions that display in the drop-down list map to the type of dimension. For example, if you are mapping a dimension to the Account dimension type, only accounts dimensions display in the list.

In some cases, you may want to create a new dimension.

3 **Optional:** Create a new dimension. To create a new dimension:
   a. Using the Dimension drop-down arrow, select **Create New Dimension**.
      
      The Add New Dimension dialog box is displayed.
   b. Enter the dimension name and description. The type is automatically selected according to the dimension type you are mapping the dimension to in the Dimension Type column.
   c. Click **OK**.

4 Continue to select or create new dimensions for all primary, custom, and other dimensions.

5 If you want the dimension to be local, select the local check box at the end of each row.

   **Note:** If you automatically created new local dimensions on the first screen of the wizard, you cannot change the dimension to be shared.

   For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.
6 Click Next.

The Application Settings screen is displayed.

Modifying the Application Settings

The next step in creating applications is to modify application properties and other application settings. If you are creating the application manually, you use these options, plus additional options in the Dimension Library.

If you are creating the application manually, the Dimension Library is displayed, with the Shared Library, Application, and Property Grid. You can use the right-click menu to modify the application dimensions or the application at the highest level.

Modifying Application Settings Using the Dimension Library

If you created a blank application and are modifying application settings in the Dimension Library, you can perform these actions:

- Set the dimension alias—See “Setting the Dimension Alias” on page 185.
- Associate dimensions and view existing dimension associations—See “Viewing Dimension Associations” on page 183.
- View application membership—See “Viewing Application Membership” on page 186.
- Create dimensions—See “Creating Dimensions” on page 73
- Remove dimensions—See “Removing Dimensions” on page 183.
- Copy dimensions—See “Copying Dimensions” on page 83
- Detach dimensions—See “Converting Local Dimensions to Shared” on page 181
- Modify property values—See “Editing Property Values” on page 130
- Add members, exclude members, and set the base member—See “Working with Members in Applications” on page 138.

Modifying Application Settings Using the Application Wizard

If you are creating the application using the wizard, the application dimensions and members display on the left, the Property Grid displays on the right, and the validation and deployment options display at the bottom.
For wizard applications, use the right-click menu to modify the application dimensions or members. You can perform these actions:

- Set the dimension alias—See “Setting the Dimension Alias” on page 185.
- View application membership—See “Viewing Application Membership” on page 186.
- View dimension associations—See “Viewing Dimension Associations” on page 183
- Synchronize dimensions—See “Synchronizing Dimensions with the Shared Library” on page 182
- Create members—See “Creating Members” on page 117
- Insert shared members—See “Working with Shared Members” on page 118
- Reorder children—See “Reordering Children Members” on page 129
- Manage orphan members—See “Managing Orphan Members” on page 129
- Exclude members—See “Excluding Members” on page 141.

**Validating and Deploying**

If you are using the application wizard, when you finish modifying the application dimensions and members, you can validate the application and correct any errors before finalizing the
creation of the application. You can also bypass the validation and deployment options in the wizard and later use the deployment option in the Application Library.

If you are creating the application manually, you validate and deploy the application using options in the Application Library. For detailed information on validation and deployment, see “Validating and Deploying Applications” on page 200.

To validate and deploy an application using the wizard:

1. In the application wizard, Application Settings screen, select Validate.
   All errors display in the grid, showing the error type and error message.

2. If validation errors occur, correct any problems before you deploy the application.

3. To deploy and application, on the Application Settings screen, select Deploy when finished.

4. Click Finish.
   If you selected Deploy when finished, the Deploy dialog box is displayed.

**Note:** After you deploy an application, you cannot change the Year, Period, Alias, or View dimensions. In addition, you cannot add languages after deployment.

### Creating Planning Applications

You can create Planning applications manually or using the application wizard. The following sections provide instructions on creating Planning applications. Planning applications must meet these requirements:

- The application must have a name, and it must be assigned to at least one plan type.
- The Default Currency property must be defined.
- The Start Year property must be defined. The year must be four digits long, such as 2008.
- The first year member in the Year dimension and the Start Year property must describe the same year. For example, if the Start Year is 2008, the first year in the Year dimension must be FY08.
- Year members must start with FY, followed by a two-digit year, such as FY08.
- The Start Month property must be defined.
- The Default Alias Table property must be defined. For information, see “Alias Dimensions” on page 78.
- The application must include the Planning required dimensions. Single-currency applications require Scenario, Version, Entity, Account, Period, and Year. Multiple-currency applications require Scenario, Version, Entity, Account, Period, Year, and Currency.
- The application must meet the qualifications specified in Appendix B, “Working with Planning Dimensions.”
For information on creating and initializing the Planning Sample Application using Performance Management Architect application administration, see the Oracle Hyperion Planning, Fusion Edition Administrator’s Guide.

Selecting the Application Type

Use the following steps to create Planning applications. When specifying application information, ensure that:

- The application has a name, and it is assigned to at least one plan type.
- The Default Currency property is defined.
- The Start Year property is defined. The year must be four digits long, such as 2008.
- The first year member in the Year dimension and the Start Year property describe the same year. For example, if the Start Year is 2008, the first year in the Year dimension is FY08.
- Year members start with FY, followed by a two-digit year, such as FY08.
- The Start Month property is defined.

To create Planning applications:

1. Select **File, New, Application**.

   The first screen of the wizard displays—Application Type.

2. Enter the application name.

   Names must not contain any special characters and must contain no more than eight characters.

3. Select **Planning**.

4. Enter an optional description.

5. **Optional**: Select **Create Blank Application** to create an empty application and use the Dimension Library to drag and drop dimensions into the application. Then, click **Finish**. See “Manually Adding Dimensions” on page 147.

   If you are creating a blank application, use the Property Grid to define the plan types, default currency, and enable multiple currencies. See “Defining Plan Types” on page 156 and “Specifying the Default Currency” on page 156.

6. **Optional**: Select **Auto Create Local Dimensions** if you want to create a local application, creating all required dimensions locally using the default name of the dimension class.

   For example, this creates an Entity dimension named Entity, an Account dimension named Account, and so on. With this setting, dimensions are selected as local dimensions on the Dimension Settings screen, and you can add dimensions under Custom Dimensions and Other Dimensions, if necessary.
Perform these actions:

- Define the plan types: see “Defining Plan Types” on page 156.
- Specify the default currency: see “Specifying the Default Currency” on page 156.
- Set calendar options for the base time period. If you select 12 Months, enter the fiscal start month and weekly distribution. See “Defining Calendar Ranges” on page 162.

Optional: Perform these actions:

- If the application supports multiple currencies, select Use Multiple Currencies. See “Specifying the Default Currency” on page 156.

- Select Create New Local Period Dimension.
  
  If you want to create a local Period dimension, enter the period name for the new dimension in the Calendar area. If you select Custom for Base Time Period, enter the period name, prefix, and periods per year.

- Select Create New Local Year Dimension.
  
  If you want to create a local Year dimension, enter the appropriate information for the new dimension in the Calendar area, including the year name, fiscal start year, and total number of years.

Click Next.

The Select Dimensions screen is displayed.
Defining Plan Types

In an application, you must configure at least one plan type. An Essbase database is created for each plan type. You can have up to three plan types for Planning applications, and two for separate modules. You cannot change the name or number of plan types after creating an application.

As you create accounts, entities, and other elements of the application, you associate them with plan types, so the database for each plan type contains only application dimensions, members, and data values relevant to the plan type. This optimizes application design, size, and performance.

The number of plan types depends on the needs of your organization. For example, if the sales department has a yearly revenue plan, and the finance department has a P&L plan, you can define two plan types, Revenue and P&L.

Data can be shared between plan types. For example, the Revenue plan may include several sales detail accounts that roll up into a Total Product Sales account. You can configure the P&L plan to include the Total Product Sales account. This configuration enables you to bring the data value for Total Product Sales into the P&L plan, without account details. Thus, the database for your P&L plan is smaller and more efficient.

Plan type names can have up to eight characters. You can enter more than eight bytes, including single-byte and double-byte characters, but an error message displays when the Essbase database is created. If Essbase is installed on a UNIX server, the plan type name cannot contain underscore characters.

To define plan types, perform one of these actions:
- If using the application wizard, select the plan types and enter the plan type names.
- If creating the application manually, double-click the Plan 1 Name property and enter the name of the plan type. Repeat the process for additional plan types.

Specifying the Default Currency

You must specify the default currency for the entities of an application and establish whether the application supports currency conversions. Multiple currency support (also known as currency overrides) is available for level 0 members, regardless of their base currency.

Below is a list of several supported currency codes:
- USD: US dollar
- EUR: European Union Euro
- FRF: France franc
- DEM: Germany deutsche mark
- AUD: Australia dollar
For a list of currency codes, see the ISO 4217 currency code list for banking and business. You can use a predefined three-letter currency code, or add your own. Performance Management Architect does not require adherence to the ISO standard.

If you support multiple currencies, two dimensions are created in the deployed application: Currency and HSP_Rates. The multiple currency setting cannot be changed later.

To set the default currency:

1. If using the application wizard, select a currency to use for the **Default Currency**. If the application has multiple currencies, select **Multiple Currencies**.

2. If creating the application manually, select the application at the highest level. Double-click the **Default Currency** property and enter the currency code. If you support multiple currencies, select the application at the highest level and select **Multiple Currencies** in the Property Grid.

### Selecting Dimensions

The next step in creating an application is to add dimensions to the application. Planning applications must meet these requirements:

- Single-currency applications require these dimensions:
  - Entity
  - Version
  - Scenario
  - Account
  - Year
  - Period

- Multiple-currency applications require the above dimensions as well as Currency.

- The Default Alias Table property must be defined. For information, see “**Alias Dimensions**” on page 78.

- The application must meet the requirements specified in **Appendix B, “Working with Planning Dimensions.”**

**Tip:** If you use the wizard to create an application, all required dimensions are automatically marked on the Dimension Selection screen.

If you created a blank application, see “**Manually Adding Dimensions**” on page 157. If you are using the wizard, see “**Defining Dimensions Using the Wizard**” on page 158.

### Manually Adding Dimensions

When you create applications manually, you use the Dimension Library to select dimensions. The Dimension Library has three panes:
- **Shared Library**—Displays on the left and displays all dimensions currently available in the Shared Library.

  For information on loading dimensions into the Dimension Library, see Chapter 3, “Importing Metadata.”

- **Application**—Appears in the middle, and, when expanded, lists the names of all dimensions in the current application.

- **Property Grid**—Displays on the right with the properties of the selected dimension or member.

  For information on editing properties, see “Editing Property Values” on page 130.

For information on filtering dimensions for applications, see “Adding Members to Applications” on page 138.

To add dimensions to applications:

1. Drag the dimensions from the Shared Library to the application.
   - The Copy Dimension dialog box is displayed.
2. Select Local Dimension or Shared Dimension.

   **Tip:** To add only members to an application, see “Adding Members to Applications” on page 138.

The expanded application lists all dimensions. For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.

You can modify application properties. Depending on the application type, requirements and properties vary. See “Modifying the Application Settings” on page 160.

### Defining Dimensions Using the Wizard

When you use the application wizard, all required dimensions are displayed in bold. Dimension types are categorized and displayed with a heading, for example, All Plan Types, Custom Dimensions, and Other Dimensions. Dimensions under All Plan Types are required.

To define dimensions:

1. To map a dimension type to a dimension, click [Select] in the Dimension column.
   - If a required dimension type matches to a dimension in the Dimension Library, the dimension name displays in the Dimension column.
2 Select a dimension.

The dimensions that display in the drop-down list map to the type of dimension. For example, if you are mapping a dimension to the Account dimension type, only Account dimensions display in the list.

In some cases, you may want to create a new dimension.

3 Optional: Create a new dimension. To create a new dimension:

a. Using the Dimension drop-down arrow, select Create New Dimension.

The Add New Dimension dialog box displays.

b. Enter the dimension name and description. The type is automatically selected according to the dimension type you are mapping the dimension to in the Dimension Type column.

c. Click OK.

This new dimension is Local to the application, and is not added to the Shared Library.

4 Continue to select or create new dimensions for all required, custom, and other dimensions.

5 To add an attribute dimension, identify its base dimension. Attribute dimensions must be associated with a base dimension.

6 To create a dimension as local to the application, select Local Dimension at the end of each row.

Note: If you automatically created new local dimensions on the first screen of the wizard, you cannot change the dimension to be shared.
You cannot have a Shared Base dimension, such as Entity, with a local associated dimension, such as Alias. For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.

Note: All required dimensions must be mapped to a dimension before you can move to the next screen. It is not necessary for any non-required dimensions to be mapped.

7 Review the application settings to ensure that they meet the requirements described in “Selecting Dimensions” on page 157. For example, you must make a selection for all of the required dimensions. (Single-currency applications require Scenario, Version, Entity, Account, Period, and Year. Multiple-currency applications require these dimensions in addition to Currency.)

8 When you have resolved any issues, click Next.

If errors display, ensure that the application meets the requirements described in “Selecting Dimensions” on page 157. You can click Show Details to view information about the error, then click Hide Details. Then click OK. After resolving any errors, click Next again.

The Application Settings screen displays.

Modifying the Application Settings

The next step in creating applications is to modify application properties and other application settings. If you are creating the application manually, you use these options, plus additional options in the Dimension Library.

If you are creating the application manually, the Dimension Library is displayed, with the Shared Library, Application, and Property Grid. You can use the right-click menu to modify the application dimensions or the application at the highest level.

Modifying Application Settings Using the Dimension Library

If you created a blank application and are modifying application settings in the Dimension Library, you can perform these actions:

- Optimize application performance. See “Modifying Performance Settings” on page 162
- Set the data type evaluation order. See “Setting Data Type Evaluation Order” on page 164
- Set the dimension alias—See “Setting the Dimension Alias” on page 185.
- Associate dimensions and view existing dimension associations—See “Viewing Dimension Associations” on page 183.
- Create dimensions—See “Creating Dimensions” on page 73
- Remove dimensions—See “Removing Dimensions” on page 183.
- Copy dimensions—See “Copying Dimensions” on page 83
- Detach dimensions—See “Converting Local Dimensions to Shared” on page 181
- Modify property values—See “Editing Property Values” on page 130
- Add members, exclude members, and set the base member—See “Working with Members in Applications” on page 138.
Modifying Application Settings Using the Application Wizard

If you are creating the application using the wizard, the application dimensions and members display on the left, the Property Grid displays on the right, and the validation and deployment options display at the bottom.

For wizard applications, use the right-click menu to modify the application dimensions or members. You can perform these actions:

- Optimize application performance. See “Modifying Performance Settings” on page 162
- Set the default alias table. The Default Alias Table property is set to default at the application level. If you create another alias table (another member of the Alias dimension, such as English) and want this to be the default alias table used by the application, you must set this manually. See “Setting the Dimension Alias” on page 185.
- View application membership—See “Viewing Application Membership” on page 186.
- View dimension associations—See “Viewing Dimension Associations” on page 183
- Synchronize dimensions—See “Synchronizing Dimensions with the Shared Library” on page 182
- Create members—See “Creating Members” on page 117
- Insert shared members—See “Working with Shared Members” on page 118
- Reorder children—See “Reordering Children Members” on page 129
- Manage orphan members—See “Managing Orphan Members” on page 129
- Exclude members—See “Working with Members in Applications” on page 138.
Defining Base Time Periods and Monthly Distribution Spread

You can select a base time period and a monthly distribution pattern, based on the number of fiscal weeks in a month. Base time periods are the bottom-level time periods in an application. Predefined options are quarters or months. You can create a custom base time period, such as weeks or days.

You use monthly distribution patterns to determine how data entered into a summary time period is distributed (spread) among the base time periods. During data entry, users can enter data into summary time periods, such as years or quarters. Planning distributes the entered values over the base time periods that constitute the summary time period.

If you select a weekly distribution pattern other than Even Distribution, Planning treats quarterly values as if they were divided into 13 weeks and distributes weeks according to the pattern that you selected. For example, if you select the 5-4-4 pattern, Planning treats the first month of a quarter as if it has five weeks and the last two months of the quarter as if they have four weeks. The options for the weekly distribution pattern are available only if you select the base time period option “12 Months.”

To define base time periods and weekly distribution patterns:

1. Select the application (at the highest level), then double-click the Base Time Period property, select 12 Months, Quarters, or Custom.
2. Double-click the Weeks Distribution property, select a weekly distribution pattern. (Options include: Even, 445, 454, and 544.)

Defining Calendar Ranges

For applications, you can specify the fiscal start year and start month. When specifying the fiscal start year, consider how much historical data your organization needs and wants in the application. You can add years to the calendar, but you cannot change the fiscal start year.

To define the calendar range:

1. Select the application (at the highest level), then double-click Start Year and enter the year.
2. Double-click Start Month and select the month.

Modifying Performance Settings

Use these methods to optimize application performance:

- Assign dimensions as dense or sparse.
  
  You can accelerate data retrieval and minimize memory and disk space requirements by assigning dimensions to one of two types: dense or sparse.

  If a dimension lacks data values for the majority of member combinations, define it as sparse. If a dimension has data values for the majority of member combinations, define it as dense. Often, dense dimensions are Period and Account. Usually, Period is highly populated with data, whereas Account is dense due to intensive calculations.
Essbase requires that at least one dimension be set to dense. Custom attributes cannot be assigned to dense dimensions. See the Oracle Hyperion Planning Administrator’s Guide.

- Change dimension order.
- Allocate memory for the supporting detail cache. See the Oracle Hyperion Planning Administrator’s Guide.

➢ To improve performance for Planning applications:

1. Right-click the application (at the highest level) and select **Performance Settings**.

   The Plan Type Performance Settings dialog box is displayed.

2. Select plan type.

   Dimensions belonging to the plan type are displayed with the number of dimensions for the plan type. Applications can have up to five plan types.

   If applications are created with a single currency, the HSP_Rates dimension is not displayed.

3. Double-click a cell in the Density column and select:
   - Sparse—Lack data values for the majority of member combinations. A sparse dimension is a dimension with a low percentage of available data positions filled.
   - Dense—A dimension with a high probability that one or more data points is occupied in every combination of dimensions.

   **Caution!** Deployment of an application fails if you do not assign at least one dimension in a cube to be dense.

You can speed calculation time by changing the order for calculating dimensions. The order of dimensions is critical in the structure and performance of Essbase databases. Dense dimensions calculate faster than sparse dimensions, so dimensions should be in order of
most to least dense. Aggregating dimensions aggregate children into the parent to create new data; non-aggregating dimensions do not create new data by the hierarchies (for example, a Scenario or Version dimension).

Separate sparse dimensions into aggregating and non-aggregating dimensions, with aggregating dimensions before non-aggregating dimensions.

Optimize performance by ordering dimensions according to these guidelines:

- Make Period and Account dense.
- Order dense dimensions from the most to least dense. The most dense is usually Period, followed by Account.
- Separate sparse dimensions into aggregating and non-aggregating dimensions. Place aggregating dimensions before non-aggregating dimensions. Order sparse dimensions from most to least dense.

4. **Select a dimension:**

   - Click ![up](image) to move the dimension up in the list.
   - Click ![down](image) to move the dimension down in the list.

5. **Click OK.**

### Setting Data Type Evaluation Order

Data types are a property that are defined for all dimension members. Data types can have conflicting results on the face of a data form depending upon the cell intersections defined for the data form. For example, the intersection of a "percent" data type and a "currency" data type need to be resolved based upon a defined order set by a Power User. The Data Type Evaluation Order is the defined order. You set a dimension order by plan type to determine the precedence when multiple data types intersect. Data types associated with the first dimension in the list take precedence over data types associated with subsequent dimensions.

To modify the evaluation order:

1. **Right-click the application (at the highest level) and select Data Type Evaluation Order(s).**

   The Evaluation Order dialog box is displayed.
Note: If you want to allow users to enter dates or text into data form cells having Date and Text data types in Planning applications, select those members' dimensions and move them to Selected Dimensions.

2 Select a Plan Type.
Applications can have up to five plan types.

3 Select a dimension and perform one action:
   - Click ▲ to move the dimension up in the list.
   - Click ▼ to move the dimension down in the list.

4 Click OK.

Validating and Deploying

If you are using the application wizard, when you finish modifying the application dimensions and members, you can validate the application and correct any errors prior to finalizing the creation of the application. You can also bypass the validation and deployment options in the wizard and later use the deployment option in the Application Library.

If you are creating the application manually, you validate and deploy the application using options in the Application Library. For detailed information on validation and deployment, see “Validating and Deploying Applications” on page 200.

➢ To validate and deploy an application using the wizard:

1 In the application wizard, Application Settings screen, select Validate to view and resolve any issues before deploying.
Any errors display in the grid, showing the error type and error message. Use the scroll bars as necessary to view the messages.

To save a copy of one or all of the messages, right-click a message, and select Copy Selected to Clipboard or Copy All to Clipboard. You can paste the information into a text editor and save or print the messages. To clear the list of messages, click Clear.

2 If validation errors or warnings display, correct them before you deploy the application.

3 To deploy after creating the application, on the Application Settings screen, select Deploy when finished.

4 Click Finish.

If you selected Deploy when finished, the Deploy dialog box is displayed.

Creating Profitability and Cost Management Applications

You can create Profitability and Cost Management applications using the application wizard. The following sections provide step-by-step information on creating Profitability and Cost Management applications:

- “Selecting the Application Type” on page 166
- “Selecting Dimensions” on page 167
- “Modifying the Application Settings” on page 171
- “Validating and Deploying” on page 175

Caution! Any business dimensions to be included in the application, for example, Generic, Account, Entity, Time, or Country, must be added to the Dimension Library before creating the application; otherwise, the dimensions will not be available for the Application Wizard to select. See “Creating Dimensions.”

Selecting the Application Type

The following steps describe creating Profitability and Cost Management applications.

1 Populating the new shared library in Performance Management Architect using a flat file import or a Performance Management Architect interface table import. See “Configuring Interface Data Sources” on page 56.

2 From EPM Workspace, select Navigate, then Administer, and then Application Library.

   The Application Library is displayed.

3 Select File, then New, and then Application

   The first screen of the wizard is displayed - Application Type.
4 Enter the application name.

Names must be 7 characters or less, and must not contain any special characters, including “&” (ampersands).

5 Select Profitability.

6 Enter a description.

7 **Optional:** To manually add dimensions to the blank application, select Create Blank Application, and then click Finish. See “Manually Adding Dimensions” on page 147.

8 **Optional:** To automatically create all required dimensions, select Auto Create Local Dimensions, and then click Next. See “Selecting Dimensions” on page 146.

Selecting Auto Create Local Dimensions automatically creates new dimensions for all dimensions that are required in the application. The dimension name for each new dimension is identical to the dimension type with (New) in parentheses.

The second screen of the wizard is displayed - Dimension Selection.

### Selecting Dimensions

After creating the application, you must select the dimensions that are to be included in the application.

The following dimensions are required for Profitability and Cost Management applications:

- Measures dimension contains the dimensions and members required to build, validate and calculate a model, including driver measures, reporting measures, and allocation measures. Users may add any user-defined driver measures (or sub-hierarchies) to the hierarchy under the member 'UserDefinedDriverMeasures'.

- AllocationType dimension is used to store direct allocations and allocation genealogy.

- At least one Point of View (POV) dimension must be defined by the user. The model POV provides a specific view of your model information for a selected time period, such as a year, status and scenario.

- At least one Business Dimension must be defined by the user. Business dimensions are created to describe the business elements within the model, such as business-specific departments, general ledger accounts, activities, customers, or products. This dimension type does not apply to aggregate storage outlines.

Business dimensions may include some or all of the following dimensions, and may apply to one or more stages or models:

- Generic business dimensions
- Account dimension type contains chart of account-type information, such as Net Income and Sales, in applications.
- Entity dimension type provides entity or organizational structures in applications.
- Time dimension is used to specify periods, months, financial quarters, and so on.
- Country dimension is used to track business activities in multiple countries.
Note: Although these business dimensions can be included as part of a Profitability and Cost Management application, when the Essbase outlines are deployed, they are created as basic or generic dimensions, with no type.

- Attribute dimensions are a special type of dimension that are associated with a business dimension. Attributes describe characteristics of data, such as the size and color of products.

- Alias dimension is optional, and only required if you want to use aliases in your model.

Note: Model stages are not dimensions, and are therefore not available in Performance Management Architect. Stages are added to a model in Profitability and Cost Management, and are used to organize dimensions into logical steps or stages.

After creating the application, select the dimensions to be added to the application using the appropriate procedure:

- If you are using the wizard, see “Adding Dimensions Using the Wizard” on page 168.
- If you created a blank application, see “Adding Dimensions Manually” on page 170.

Adding Dimensions Using the Wizard

When you use the application wizard, all required dimensions are automatically displayed. If there is an exact match, it automatically populates the dimension column for the dimension type. The required dimension types for Profitability and Cost Management are automatically categorized and displayed with a shaded heading:

- Measures Dimension
- AllocationType Dimension
- POV Dimension
- Alias Dimension
- Business Dimensions
- Attribute Dimensions

If you selected Auto Create Local Dimensions when selecting the application type, new local dimensions are created for each required dimension. The name of each new dimension is the same as the dimension type, with (New) in parentheses. For example, Account (New).

Caution! Any business dimensions you want to include in the application, for example, Account, Entity, Time, or Country, must be added to the Dimension Library before creating the application; otherwise, the dimensions will not be available for the Application Wizard to select. See “Creating Dimensions.”

To select dimensions:

1. On the Dimension Selection tab (Step 2 of the Application Wizard), under Dimension Type, review the required dimension types.
2 For each existing dimension to be added for the application, under the **Dimension** column, click [**Select**] to display the drop-down list of available dimensions for that dimension type.

Only the dimensions for the associated dimension type are displayed. For example, if you are mapping a dimension to the Measures dimension type, only measure dimensions display in the list.

3 Select a dimension from the drop-down list.

4 **Optional:** Create a new dimension, as follows:
   a. In the **Dimension** column, click [**Select**] to display the drop-down list of available dimensions for that dimension type.
   b. From the drop-down list, select [**Create New Dimension**].
      The Add New Dimension dialog box is displayed.
   c. Enter the **Name** and **Description** of the new dimension. The **Type** is automatically selected, based on the dimension type selected in the Dimension Type column.
d. Click **OK**.

5 Continue to select or create new dimensions, as necessary.

6 **Optional:** To set the dimension as a local dimension, select the **Local Dimension** check box at the end of each row.

   For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.

   **Note:** All dimensions must be mapped to a dimension or [None] before you can move to the next screen.

7 Click **Next**.

   The Application Settings screen is displayed.

### Adding Dimensions Manually

When you create blank applications, you use the Dimension Library to select dimensions. The Dimension Library has three panes:

- **Shared Library** - Displays on the left and displays all dimensions currently available in the Shared Library.

  For information on loading dimensions into the Dimension Library, see Chapter 3, “Importing Metadata.”

- **Application** - Appears in the middle and when expanded, lists the names of all dimensions in the current application.

- **Property Grid** - Displays on the right and displays the properties of the selected dimension or member.

  For information on editing properties, see “Editing Property Values” on page 130.

After you create a blank application, you can add dimensions.

1. **In the Dimension Library, drag the dimensions from the Shared Library to the application.**

   The Copy Dimension dialog box is displayed.

   **Tip:** To create new local dimensions, right-click the application name in the Application View, and select Create Dimension. The Add New Dimension dialog box is displayed.

2. **Select Local Dimension or Shared Dimension for each dimension.**

   **Tip:** To add only members to an application, in the Shared Library, right-click the dimension and select Add to App View. See “Adding Members to Applications” on page 138.
For information on shared and local dimensions, see “Understanding Shared and Local Dimensions” on page 74.

3 Add all required dimensions to the application. (Measures, AllocationType, POV, and so on.)

The expanded application lists all dimensions.

Tip: If you add a member to the Shared Library and include the dimension in the application, you can click the Refresh button , and the new member will display in the application.

4 Set the Consolidation Property Value for NoMember to ~ (Ignore).

5 Reorder the dimensions so that NoMember is moved to the last Gen2 position. See “Reordering Children Members in Profitability and Cost Management Models” on page 174.

6 Modify the application settings, as required. See “Modifying the Application Settings” on page 171.

Modifying the Application Settings

The next step in creating an application is to modify application properties, associations, and other application settings. If you are creating a blank application and using the Dimension Library to modify the application settings, you have similar options, except that you are using the Dimension Library instead of the wizard to make the modifications.

Use the appropriate options to modify the application settings:

- Use the Dimension Library for blank applications. See “Modifying Application Settings Using the Dimension Library” on page 172
Use the Application Wizard for auto-generated applications. See “Modifying Application Settings Using the Application Wizard” on page 172

Note: Dimension associations are required for shared hierarchies, and may not be required in all models.

Modifying Application Settings Using the Dimension Library

In the Dimension Library, the Shared Library, Application and Property Grid are displayed. You can use the right-click menu to modify the application dimensions and perform these actions:

- Set the properties for the POV dimensions. See “Setting the Properties for POV Dimensions” on page 173.
- Set the dimension alias—See “Setting the Dimension Alias” on page 185.
- Associate dimensions and view existing dimension associations—See “Viewing Dimension Associations” on page 183.
- View application membership—See “Viewing Application Membership” on page 186.
- Create dimensions—See “Creating Dimensions” on page 73.
- Remove dimensions—See “Removing Dimensions” on page 183.
- Copy dimensions—See “Copying Dimensions” on page 83.
- Detach dimensions—See “Converting Local Dimensions to Shared” on page 181.
- Modify property values—See “Editing Property Values” on page 130.
- Find members, exclude members, and set the base member—See “Common Application Tasks” on page 179.

Modifying Application Settings Using the Application Wizard

If you are creating the application using the wizard, the application dimensions and members display on the left, the Property Grid displays on the right, and the validation and deployment options display at the bottom.

- Set the properties for the POV dimensions. See “Setting the Properties for POV Dimensions” on page 173.
- Set the dimension alias—See “Setting the Dimension Alias” on page 185.
- View application membership—See “Viewing Application Membership” on page 186.
- View dimension associations—See “Viewing Dimension Associations” on page 183.
- Synchronize dimensions—See “Synchronizing Dimensions with the Shared Library” on page 182.
Setting the Properties for POV Dimensions

At least one POV, or Point of View, dimension must be set for every Profitability and Cost Management model. The POV dimension may be set to any custom value, but usually denotes time periods, such as Year, Period, or Scenario.

If more than one POV dimension is designated, a POV Display Order must also be set to sequence these dimensions for calculation. The POV Display Order that is set in Performance Management Architect is automatically picked up in Profitability and Cost Management.

To set POV dimension properties:

1. Select the first POV dimension, such as Year.
2. In the Property Grid under Category, select Profitability.
3. Select POV Dimension.
4. Optional: Repeat step 1 to step 3 to select other POV dimensions, such as Period or Scenario.
5. Optional: If more than one POV Dimension was selected, set the POV Display Order for each POV Dimension.
Double-click the POV Display Order cell and type the sequence number for the selected
POV dimension. For example, if Year, Period and Scenario are set as POV Dimensions, set
the POV Display Order for Year to 1, Period to 2, and Scenario as 3 as the display order.

Reordering Children Members in Profitability and Cost Management Models

For all business dimensions in the model, you must reorder the list of members to display
NoMember as the last member; otherwise, validation of the model will fail.

You can also reorder members to suit your particular requirements as long as NoMember is
moved to the last position.

**Note:** This step is not required for systems dimensions, such as Alias, AllocationType, Measures,
Periods, Scenarios or Years.

➢ To reorder children:

1. From EPM Workspace, select **Navigate**, then **Administer**, and then **Dimension Library** to display the
   Shared Library.
2. In the Shared Library, right-click the dimension that you want to reorder.
   The Reorder Children dialog box is displayed.
3. Select the member to be moved, and use the up and down arrows to change the order of the children.
   **Note:** Ensure the NoMember dimension is moved to the end of the list; otherwise, the
   deployment will fail.
4. Repeat step 3 to order all members.
5. Click **OK**.

Setting the Dimension Sort Order

The processing order for every dimension in the model must be set at the dimension level, using
the Dimension Sort Order property.

A dimension sort order must be set for every dimension in the model, except Alias and UDA
dimensions.

**Note:** The Alias dimension is ignored for Dimension Sort Order, as it does not exist as a
dimension in Profitability and Cost Management and Essbase.

The dimensions must be sorted sequentially in the sequence specified in Table 16, “Dimension
Sort Order Settings,” on page 175 ; otherwise, validation of the model will fail:
To set the Dimension Sort Order:

1. From EPM Workspace, select **Navigate**, then **Administer**, and then **Dimension Library** to display the Shared Library.
2. In the Property Grid, select **Profitability**.
3. Select the following dimensions, and set the Dimension Sort Order as described in the following table:

<table>
<thead>
<tr>
<th>Dimension Type</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>1 (Default)</td>
</tr>
<tr>
<td>AllocationType</td>
<td>2</td>
</tr>
<tr>
<td>POV and Business Dimensions</td>
<td>3 or higher</td>
</tr>
<tr>
<td>Attribute Dimensions</td>
<td>Sort as the last dimensions.</td>
</tr>
<tr>
<td></td>
<td>For example, if you have four attribute dimensions in a sequence of 12 dimensions, the attribute dimensions must be set as 9, 10, 11, and 12.</td>
</tr>
</tbody>
</table>

4. Validate the model. See “Validating and Deploying” on page 175.

### Validating and Deploying

After the application dimensions and members have been modified, validate and deploy the application, as follows:

- If you are using the application wizard, validate the application and correct any errors prior to finalizing the creation of the application. If required, you can bypass the validation and deployment options in the wizard and later use the deployment option in the Application Library.
- If you are creating a blank application, validate and deploy the application using options in the Application Library. See “Deploying Profitability Applications” on page 207.

### Profitability and Cost Management Validations

For Profitability and Cost Management, the following conditions are validated:

- The name of the application must be 7 characters or less, and contain no special characters.
- At least one dimension has been set to POV type.
- Up to 4 dimensions may be marked as POV dimensions.
- The application must contain one Measures dimension.
- The application must contain one AllocationType dimension.
- There is only one dimension of type “Account” is allowed.
- There is only one dimension of type “Entity” is allowed.
- Dimension Sort Order has been set for the model, and satisfies the following conditions.
A dimension sort order must be set for every dimension in the model, except Alias and UDA dimensions.

The dimension sort order must be sequential.

Measures dimension is set to 1, by default.

AllocationType dimension is set to 2, by default.

POV and business dimensions are set to 3 or higher.

Attribute dimensions are sorted as the last dimensions.

For example, if you have four attribute dimensions in a sequence of 12 dimensions, the attribute dimensions must be set as 9, 10, 11, and 12.

Ensure that duplicate members do not exist in the same dimension.

NoMember must be set as the last member for all business dimensions, and must be set to Ignore (~) in the Property Grid.

Note: This requirement does not apply to Alias, AllocationType, Measures, Periods, Scenarios or Years.

To validate and deploy an application using the wizard:

1. On the Application Settings screen of the Application wizard, click Validate.
   All errors display in the grid, showing the error type and error message.

2. Optional: To deploy the application after validation, select Deploy when finished.

3. If validation errors occur, correct any problems before deploying the application.

4. Click Finish.
   If you selected “Deploy when finished,” the Deploy dialog box is displayed.

   Note: If you change a shared dimension, all applications that use that shared dimension are affected. For changes to take effect, the application must be redeployed.

5. Deploy the application. See “Deploying Profitability Applications” on page 207.

Creating Essbase Applications

Performance Management Architect supports deployment to Essbase by creating Essbase (ASO) and Essbase (BSO) applications, primarily used for reporting. When you create Essbase applications, you create blank applications using the application wizard. Then, you can use the Dimension Library to add dimensions.

Note these limitations with Performance Management Architect and Essbase:

You cannot:

- Use Performance Management Architect to create Hybrid Analysis or Advanced Relational Access cubes
Upgrade existing Essbase cubes to Performance Management Architect

Validate formulas within Performance Management Architect

Use Essbase ASO applications as a source for data synchronizations

Performance Management Architect does not support:

- Smart list to text list mapping
- Various outline features, including named generations, named levels, and dynamic time series members
- Varying attributes
- Database administration features, including partition management, drill through definitions, and security.

To create Essbase (ASO) and Essbase (BSO) applications:

1. Select **File, New, Application**.
   
   The first screen of the wizard is displayed—Application Type.

2. **Enter the application name**.
   
   The name must contain no more than 8 characters. In addition, names must not contain any special characters.

3. **Select Essbase (ASO) or Essbase (BSO)**.

4. **Enter an optional description**.

5. **Click Finish**.
   
   The Dimension Library is displayed.

6. **Use the Dimension Library to add dimensions to the application**. See “Common Application Tasks” on page 179.

It is important to review the application requirements when you create an Essbase ASO or BSO application. See “Application Requirements” on page 177.

### Application Requirements

Keep in mind the following guidelines and requirements when creating Essbase applications:

Essbase applications do not require a fixed set of dimensions. For example, you can create and deploy an Essbase application containing just one generic dimension and one member.

- When adding an alias member, you must create a dimension of “Alias” type to associate with this member. See “Creating Dimension Associations” on page 81 for information on creating dimension associations.

   The alias dimension can contain up to 10 members. At a minimum, a member named “Default” is required in this dimension.
When adding an attribute member, you associate the member to a base dimension. See “Creating Dimension Associations” on page 81 for information on creating dimension associations.

- Performance Management Architect only supports the attribute type, “Text.”
- You cannot use Performance Management Architect to create Hybrid Analysis or Advanced Relational Access cubes.
- For Essbase (BSO) applications, there is no way to set dense or sparse settings in Performance Management Architect.

**Note:** In some cases, if you make changes to the “Auto Configure” property in Performance Management Architect it does not overwrite in Essbase. If you set the “Dimension Storage Type” property in Essbase applications, you must set the "Auto configure” property value to False before you deploy or redeploy the application to Essbase.

Properties for Essbase applications, dimensions and members are described in Appendix D, “Working with Essbase Properties.”

Information on Essbase requirements for applications and databases is available in the Oracle Essbase Database Administrator’s Guide and the Oracle Essbase Administration Services Online Help.

### Creating Generic Applications

You can create generic applications if you want to:

- Create a template application that can be duplicated to create deployable applications of different types
- Model local dimensions in your own work area until you are ready to include them in the Shared Library or a deployable application

When you create Generic applications, you create blank applications using the application wizard. Then, you can use the Dimension Library to add dimensions.

1. **Select File, New, Application.**
   
   The first screen of the wizard is displayed—Application Type.

2. **Enter the application name.**
   
   Names must not contain any special characters or spaces. In addition, names must contain no more than 10 characters.

3. **Select Generic.**
Enter a description.

Click Finish.

The Dimension Library is displayed.

Add dimensions from the Shared Library to the application. See “Common Application Tasks” on page 179.

Common Application Tasks

This section describes common tasks for all application types. For tasks specific to an application type, see:

- “Creating Consolidation Applications” on page 145
- “Creating Planning Applications” on page 153
- “Creating Profitability and Cost Management Applications” on page 166
- “Creating Essbase Applications” on page 176
- “Creating Generic Applications” on page 178

Including Dimensions in Applications

Performance Management Architect enables you to manage and share dimensions across applications as well as use independent dimensions that are unique to your application. You can also change a dimension within an application from shared to local or vice versa. This capability provides a deployed application the flexibility to modify its dimension sharing requirements with other applications over time without having to define them at the time of application creation.

You can create local dimensions and maintain the dimensions locally in the application. At a subsequent time, you can decide to share these local dimensions (converting from local to shared) or copy them to the Shared Library as separate dimensions for independent use by other applications. Once a dimension is in the Shared Library, you can distribute updates to other applications that use the dimension in several ways (inherited using a shared dimension or explicitly using dimension synchronization to move changes between the Shared Library and an application).

Detaching dimensions (converting from shared to local) enables you to break the shared link between the dimension in the Shared Library and its counterpart in an application while allowing you to retain the same dimension structure and property values in the application. Any changes made to the dimension in the Shared Library are then no longer automatically inherited to the application.

To add dimensions to an application:

1 Drag the dimensions from the Shared Library to the application.

The Dimension Status Selection dialog box is displayed.
2 Select Local Dimension or Shared Dimension.

3 Click OK.

Dimensions that are shared in an application display (Shared) after the dimension name. Dimensions that are local in an application display (local) after the dimension name.

**Converting Shared Dimensions to Local**

There may be cases where you have a shared dimension that you want to change to a local dimension in the application. After you convert a shared to dimension to local, all subsequent changes you make in the Shared Library will not be consumed by the local dimension in the application.

You can convert a shared dimension to local by detaching the dimension in the application.

The Detach Dimension feature is only available if the dimension is shared in the application. Detaching a dimension converts the shared dimension to a local dimension by making a copy. After the dimension is copied, the dimension is no longer shared, but rather a local dimension where you can make structure changes without effecting the Shared Library or vice versa.

In a case where you want to make the dimension shared again, you can reconnect it with the same dimension in the Shared Library that previously was included in the application. See “Converting Local Dimensions to Shared” on page 181.

When a dimension is converted from shared to local, the dimension is not synchronized since the dimension is copied to the application. Property overrides and filters are applied to the local dimension so the resulting dimension has the same structure and property values as the shared version.

➢ To detach a dimension:

1 Right-click a shared dimension in the application.

2 Select Detach Dimension.

The Detach Dimension dialog box is displayed.

3 Select Retain Filtered Structure and/or Retain Property Overrides.

To retain the same filtered structure and overridden property values in the local dimension that you had in the shared dimension, select both options. To discard any application level filtering and overrides you may have created in the shared dimension and to create a local dimension with the same structure as the source dimension in the shared library, using inherited property values of the source dimension, do not select either option.
Click OK.

**Note:** If you change the property value in the application, that property value becomes an application level overridden value. In this case, it is "detached" from the property value of the same member in the Shared Library, even if the Shared Library's version is changed. To revert the application-level property back to inheriting the Shared Library's version, right-click and remove the value in the application.

### Converting Local Dimensions to Shared

Local dimensions consist of two types:

- Dimensions that are sourced from the Shared Library but are not linked to the Shared Library dimension
- Dimensions that are sourced from outside the shared library

You can convert local dimensions in an application to shared. Upon conversion, the local dimension becomes shared and reconnects with the same shared dimension that was originally included in the application. When you convert local dimensions, you can determine whether to merge the changes or simply replace the dimension in the Shared Library.

Merging Changes—If you make changes to the original shared dimension, a merge operation merges any structure changes that were made to the dimension in the application. You can select an existing dimension from the Shared Library and the merge adds members from the dimension in the Shared Library to the dimension in the application. Property value differences for existing members are retained as local property values within the application. You also have the option to create a new shared dimension to merge.

Replacing Changes—If you make changes to the local dimension in an application, and then convert to a shared dimension, a replace operation replaces the dimension in the Shared Library with the structure and property values from the dimension in the application.

A local dimension can be pushed into the Shared Library for use by other applications.

**Note:** You cannot update the following Consolidation dimensions after application deployment: Period, View, ICP, Year, Value, Currency.

To convert a local dimension to shared:

1. Right-click a local dimension in the application.
2. Select **Share Dimension**.

   The Share Dimension dialog box is displayed.
Perform one of these actions:

- To make a copy of the dimension and create a new copy, select **Create a new shared Dimension**.

  **Note:** A dimension is created with the same name in the Shared Library, if one already exists, an error displays indicating that you cannot create a new shared dimension. Dimension names must be the same since the 'share' action results in the local dimension moving to the Shared Library and it being shared into the application, as if it were dragged there from the beginning of the process when adding dimensions to the application. Shared dimensions in an application always have the same name as their source dimension in the Shared Library.

- Select the existing dimension to merge or replace.

4 Select **Merge As Shared** or **Replace**.

5 Click **OK**.

**Synchronizing Dimensions with the Shared Library**

You have two options to synchronize local dimensions in applications: 1) synchronize changes from a dimension in the Shared Library to a local dimension in an application 2) synchronize changes from a local dimension in an application to a dimension in the Shared Library.

To synchronize dimensions:

1 Right-click a local dimension in the application.

2 Select **Synchronize**.

3 Select either:
   - To Shared Library
   - From Shared Library
4 Select the target dimension to synchronize (to or from).

The list of available target dimensions from the Shared Library are filtered to only those of the same dimension type as the selected application dimension. If a copy of the local dimension exists in the Shared Library, it is automatically selected by default.

5 Select **Merge As Shared** or **Replace**, then click **OK**.

You can use the **Merge As Shared** option to merge similar dimensions from two different applications. For example, if you upgrade two applications that have similar dimensionality (such as, a similar Products dimension) that are upgraded to Performance Management Architect. In this case, you can copy one of the dimensions to the Shared Library and then merge the second dimension into this dimension. This allows for retaining the structures in the individual applications while also creating a master dimension.

### Importing Dimensions into Applications

You can import dimensions directly into Performance Management Architect applications. See “Creating Import Profiles” on page 62 and “Managing Import Profiles” on page 69 for detailed information.

### Removing Dimensions

- To remove a dimension from an application, right-click the dimension, and select **Remove Dimension**.

### Viewing Dimension Associations

Dimension associations enable you to assign security classes and currency to dimensions and dimension members. For example, for an entity dimension, you can create associations to the security classes and currency dimensions. Associations are created at the dimension level and associations are inherited by all members under the dimension. Dimension associations are created in the Dimension Library. See “Creating Dimension Associations” on page 81.

Dimension associations are used to denote the inter-relationships between the dimensions within the Shared Library and applications. For example, within Consolidation applications there are Account dimension properties that reference security class, custom dimension intersections (Custom1TopMember), and so on, which directly relate to other dimensions. Dimension Associations enable you to define the relationships between these properties and the
other dimensions which then enables you to pick the value directly from the referenced dimension.

A dimension association is created for all properties where the property value refers to a member of another dimension. Once you create the association, you need to activate it in the application.

### Activating Dimension Associations

- To activate all dimension associations, right-click the application (at the highest level) and select **Activate all associations**.

**Note:** If you have a multi-currency application, the Currency dimension must be associated with the base Entity dimension. If you activate all dimension associations, it will automatically activate the association for you.

For information on creating an association for one or more dimensions, see “Creating Dimension Associations” on page 81.

### Viewing and Editing Dimension Associations

Dimension associations are not automatic, so you must activate all associations or use the Edit Dimension Association dialog box to activate associations.

- To view or activate one or more dimension associations:
  1. In the application, right-click a dimension, and select **Dimension Associations**.
     - The Edit Dimension Association dialog box is displayed.
An example of associating dimensions for Planning applications, is the Start Period and End Period properties of the Scenario dimension would have a dimension association with the Period dimension. The Start Year and End Year property of the Scenario dimension would have a dimension association with the Year dimension.

2 Perform and repeat one or both actions, as needed.

- To activate a dimension, in Shared Associations, select the dimension, then click .
- To deactivate a dimension, in Active Associations, select the dimension, then click .

You can click Add All or Remove All to activate or deactivate all dimensions. When you activate all dimensions, Performance Management Architect automatically associates all base and associated dimensions.

3 Click OK.

**Setting the Dimension Alias**

You can change the alias, or dimension name, in order to see a different name in the deployed application. The Dimension Alias property is useful in cases where you want to view a different name for a dimension in the deployed application versus what is displayed in the Shared Library or application.

➢ To set the Dimension Alias property:

1 Select the dimension in the Shared Library.
2 In the Property Grid, change the category to System.
3 Double-click the Dimension Alias property and enter a new dimension name (alias).

**Viewing Application Membership**

Application membership provides a view of where specific members or dimensions are used in the list of available applications. This information helps you understand the impact of changes. For example, a division is being reorganized, and you are planning to update the Entity dimension. You use the Application Membership feature to determine which applications may be impacted and to determine the scope of the change.

► To view application membership:

1 Right-click a dimension or member and select Application Membership.
   
   The Applications List dialog box lists all applications of which the dimension is a member and a description of each application.

2 Click OK.
To open the Application Library, select **Navigate, Administer, Application Library**.

**Navigating the Application Library**

The Application Library shows all of your applications. You can select an application in the top pane and view summary information in the lower pane. The lower pane displays:

- **Summary**—Name, type, date created, date last deployed, and the associated data synchronizations
- **Description**—The information you provided in the Description field of the New Application dialog box or application wizard
- **Dimensions**—The dimensions available in the application
- **Properties**—The status, default currency, and specific properties set for the application
- **Synchronizations**—The data synchronizations for this application
- **Rules / Rule Set**—Rules and Rule Sets defined in Calculation Manager for this application
Modifying the Application Library View

To modify the Application Library view:

1. Choose View, Details.

2. Perform one or more actions:
   - To sort by a column, click the column heading. For example, if you want to sort by name, click Name.
   - To move a column, drag the column heading to a new location.
   - To change the view to icon view, select View, Icons.

Organizing Applications

You can create folders in the Application Library and move applications into the folders to help organize applications.
Creating Folders

To create folders:

1. In the Application Library, select File, New, Folder.
   The Create New Folder dialog box is displayed.
   Folder names can include spaces, but cannot include any special characters.
2. Enter the folder name and description, then click OK.
   The folder is created.

Adding Applications to Folders

After you create folders in the Application Library, you can add applications to the folders.

To add applications to the folder:

1. In the Application Library, drag the applications to the folder or right-click the folder and select Add Applications.
   The Applications List dialog box is displayed.
2. Select one or more applications to add to the folder.

   Tip: You can press the [Shift] or [Ctrl] keys to select multiple applications in the Applications List dialog box.
3. Click OK.
   The applications are moved to the folder you created.
4. To open the folder, double-click the folder or right-click the folder and select Open.
   When you open a folder in the Application Library the name of the folder is displayed near the top of the Application Library window.

   Tip: If you have a folder open, and then create a new application, the application is automatically stored in the folder. Keep this in mind, since when you create a new folder and return to the Application Library the root of the library displays, and not the folder. If you do not see the newly created application, make sure to check the folders.

If you want to remove an application from the folder, see “Removing Applications From Folders” on page 190.

5. To return to the Application Library (root) and close the current folder, click .
Removing Applications From Folders

To remove applications from folders:

1. Open the folder.
2. Right-click the application and select Remove From Folder.

The application is removed from the folder and moved back to the Application Library root.

Renaming Folders

To rename a folder:

1. Right-click the folder, then select Rename.

   The Rename Folder dialog box is displayed.
2. Enter the new folder name and click OK.

Deleting Folders

You can delete folders without removing the applications that reside in the folder. When you delete a folder, all applications are automatically moved to the Application Library root.

To delete folders:

1. Right-click the folder, then select Delete.

   The Application Library – Warning dialog box is displayed.
2. Click Yes.

   The folder is removed and applications are moved to the Application Library root.

Creating Application Filters

You can create filters that allow you to see only specific applications in the Application Library.

Note: The Application Library does not filter the applications based on security. All applications are shown. For example, a user will see 20 applications in the Application Library even if he only has access to one of them.

To create application filters:

1. Select View, Filter.
2 Deselect the types that you do not want to see.

3 Under Status, deselect the status that you do not want see. For example, you might want to see applications that are not deployed.

4 Click OK.

**Refreshing the Application Library**

To ensure the most current display of application information, you can refresh the Application Library.

➢ To refresh the Application Library, select **View, Refresh**.

**Editing Applications**

➢ To edit applications, in the Application Library, double-click an application or right-click and select **Edit**.

The Dimension Library displays the Shared Library, application, and Property Grid.

**Opening Applications**

After you deploy an application, you can open it in the Hyperion application in which it was deployed.

➢ To open applications, in the Application Library, right-click a deployed application and select **Open**.

**Tip:** You can also click Navigate, Applications, then choose the Application type, such as Planning, and select the application.
The application displays in Financial Management, Profitability and Cost Management, or Planning.

**Note:** The Open option in the right-click menu is not available if the application has not been deployed.

### Closing Applications

- To close applications perform one of these actions:
  - In the upper right corner of the view, click ✗
  - Right-click the Dimension Library tab that displays the open application and select Close.
  - Select File, Close, Current.

### Deleting Applications

In the Application Library, you can delete application with Deployed or Not Deployed status. If the status is Deployment Pending, you cannot delete the application.

- To delete applications in the Application Library, right-click an application and select Delete.

An authorization check for the deletion is performed, then a request is passed to the Hyperion product server for a completion status. The application status is updated to “Marked for Deletion” so that no other operation can access it. After an application is deleted, it is removed from the Application Library.

**Note:** Before deleting a Planning application, back up the application and the application databases as described in the *Oracle Hyperion Enterprise Performance Management System Backup and Recovery Guide*. After backing up, use the standard procedure for deleting applications. After deleting, ensure that the application is deleted from Essbase, and that the Planning relational tables are deleted from the relational database.

### Duplicating Applications

Within the Application Library, you can copy applications to create new applications. If you modify artifacts in the Shared Library the changes are automatically reflected in both non-deployed applications. When you duplicate applications you have two options:

- Duplicate applications as new applications
- Duplicate applications as deployed applications
Duplicating Applications as New Applications

To duplicate applications:

1. In the Application Library, right-click an application and select Duplicate, As New Application.
   The Duplicate Application dialog box is displayed.

2. Enter the name, description (optional), and select the type. Then click OK.

   **Note:** If you select a different application type, such as Consolidation to Planning, only the like dimension properties are copied. After you duplicate the application, you should update the new application type properties.

   It may be necessary to refresh the Application Library to see the new application created by duplicating the existing application.

3. Select View, Refresh or click 🔍.

4. As necessary, double-click the application and use the Dimension Library to modify the properties.

Duplicating Consolidation Applications as Deployed Applications

You can copy deployed Consolidation applications and duplicate from one server to another. Consolidation applications cannot be copied across types of databases. For example, Consolidation applications created using a SQL Server database must be copied to another SQL Server database.

Follow these guidelines:

- The source and destination computers must be registered to the same Shared Services server.
- Applications cannot be duplicated from one Performance Management Architect server to another Performance Management Architect server.

To duplicate deployed applications:

1. In the Application Library, right-click an application and select Duplicate, Deployed Application.
Note: The Copy Data and Copy Audit Data options are available for Consolidation applications only.

2 Enter the name of the new application.

3 Optionally enter comments.

4 Select the instance name, application server, and Shared Services project.

5 Select Copy Data and/or Copy Audit Data.

   You can select Copy Data to copy the data along with the metadata/application structure information. Select Copy Audit Data to copy the data and task audit information that has been generated with the application up to the point of migration.

6 Click OK.

Note: To view the status of a duplication, select Navigate, Administer, Library Job Console.

After you duplicate a deployed application, it is automatically registered in Shared Services.

For information on assigning user roles, see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

**Finding Applications**

You can search for applications in the Application Library. Searching for applications searches the Application Library root and all folders. You can enter the following criteria for a search:
To find applications:

1. Click ✨.
   
   The Find Applications dialog box is displayed.

2. Perform one or more actions:
   - Optional: Enter the application name.
   - Select the application type.
   - Select the status. Options include: Not Deployed, Deployed, Deployment Pending, and Deployed with Errors.

3. Click OK.

**Reregistering Applications**

Reregistering is for Shared Services only and is used in the case where Shared Services goes down and the applications need to be reregistered.

To reregister applications:

1. Right-click the application and select Reregister.
2. Select the options for your application, then click Reregister.

*Note:* The Reregister dialog box displays different options, depending on the type of application.

**Comparing Applications**

Comparing applications is an integral part of the application flow. The Compare report shows all excluded members and property differences.

You can compare applications in these ways:

- Compare to Shared Library—Compares the dimensions and members in an application to the dimensions and members in the Shared Library.
- Compare to Deployed Application—Compares an application to a deployed application.

To compare applications:

1. Right-click an application, select Compare, then perform an action:
   - Compare to Shared Library
• Compare to Deployed Application

The Compare dialog box is displayed.

2 Click **View Results**.

The Dimension Compare Results is displayed.

![Dimension Compare Results](image)

**Note:** Activations and inactivations are not currently supported.

**Navigating the Compare Results**

The Compare View has three panes:

- “Dimension Compare Results” on page 197
- “Application Compare Summary” on page 197
- “Property Compare Results” on page 198
**Dimension Compare Results**

Dimension Compare Results, on the left, displays dimensions and members that have been added or deleted. Initially, the Compare Results displays the application collapsed, with the total number of differences in parentheses. When you expand the application, each dimension displays the number of differences in parentheses when it is collapsed, and upon expansion, artifacts that have been removed from the application display with a strike through. Artifacts with property differences display in bold.

When you select artifacts the value updates in the Compare Summary and Property Compare Results. (Depending on your selection, the Compare Summary heading displays: Application Compare Summary, Dimension Compare Summary, or Member Compare Summary.) If you select the:

- **Application**—the Application Compare Summary displays the total number of differences for the entire application.
- **Dimension**—the total differences for the entire dimension.
- **Removed member (with strike through)**—the Member Compare Summary Total Differences and Removes update to reflect the values of the selected member.
- **Member with property differences (in bold)**—the Member Compare Summary updates and the Property Compare Results displays the Property Name that differs in the applications being compared.

To change the dimension compare results view:

1. Click ![icon] to display a side-by-side tree.
   The Dimension Compare Results displays the compared views side by side.

2. Click ![icon] to display a single tree (default view).

**Application Compare Summary**

Compare Summary, in the upper right, displays a summary of all changes between the application and Shared Library. The Compare Summary updates, depending on your selection. For example, if you select a dimension in the Dimension Compare Results, the Compare Summary heading displays *Dimension* Compare Summary. The Compare Summary values are based on the selected artifact in the Dimension Compare Results. It displays:

- **Total Differences**—total number of differences between the application and Shared Library.
- **Property Differences**—total number of property differences
- **Additions**—total number of artifacts added to the application.
- **Removes**—total number of removed artifacts.
- **Renames**—total number of renamed members. (The number that displays for renamed members are counted in addition to the Total Differences. For example, you may see 6 total differences and 2 renames, therefore you have a grand total of 8 differences.)
- **Moves**—A member was moved from one location to another in dimension.
• Shares—A shared member was inserted into the dimension.
• Includes—A shared dimension was added to the application.
• Excludes—A member was filtered out of a dimension.

Each summary displays a radio button. The radio buttons are filters. You can select the Additions, Removes, or Property Differences radio buttons to update the Dimension Compare Results. For example, if you select Additions, the display is updated to show only additions. In addition, any members without additions are not displayed, unless it has a child that needs to be shown.

**Property Compare Results**

Property Compare Results, in the lower right, displays changed member properties for the selected member in the Dimension Compare Results. The Property Compare Results displays three columns: Property Name, Master (Shared Library), and Application name.

**Excluding Members in the Compare Results**

➢ To exclude members:

1. Right-click a member in the Dimension Compare Results and select Add to Exclude Filter.
   
   The number of ‘Removes’ is updated in the Application Compare Summary.

2. When finished, click in the upper right corner of the view.

**Viewing the Data Flow**

You can access the data flow from the Application Library. The Data Flow shows how data is moved between applications using synchronizations created with the Data Synchronizer. Data Flow takes data synchronizations and graphically depicts the relationships of data movement between applications.

**Note:** To view the data flow, you must have applications that are synchronized. See Chapter 17, “Synchronizing Data.”

➢ To view the data flow, in the Application Library, right-click an application and select Data Flow.

The data flow is displayed. The data flow map shows data flowing in and out of a focal application. The focal application is the application in the center of the data flow.
When you select an application in the data flow, properties are displayed in the lower pane. The Application Properties include, Name, Description, and Synchronizations.

**Changing the Focal Application in the Data Flow**

➢ To change the focal application, right-click the application, and select **Center**.

The focal application changes according to the application you selected.

**Viewing Synchronizations**

➢ To view a synchronization, right-click the application, select **Synchronizations** and select the synchronization name.

You can select a synchronization to edit, validate, or execute. See “Editing Synchronizations” on page 200 and “Validating and Executing Synchronizations” on page 200.
Editing Synchronizations

➢ To edit a synchronization:

1 Perform a task:
   ● In the data flow, double-click the synchronization in the Application Properties area. In the Synchronization Execution dialog box, select the synchronization, select the Action, Edit and click OK.
   ● Access the Data Synchronizer (Navigate, Administer, Data Synchronization), right-click the synchronization and select Edit.

2 Modify the data mappings as necessary.

See Chapter 17, “Synchronizing Data.”

Validating and Executing Synchronizations

You can execute synchronizations from the Data Flow.

➢ To validate and execute synchronizations:

1 In the Data Flow, select an application.

2 In the Application Properties, double-click the synchronization to execute.
   The Synchronization Execution dialog box is displayed.

3 Select the Action, Validate or Execute, and click OK.
   If you validate the synchronization, the Data Sync Validation Options dialog box is displayed. If you execute the synchronization from the data flow, the Data Sync Execute Options dialog box is displayed.

Editing Applications

You can edit applications that display in the Data Flow.

➢ To edit an application, in the Data Flow, right-click the application and select Edit.

Validating and Deploying Applications

In Performance Management Architect, you create applications which describe the dimensionality and other information about an application. When you create applications, you can then validate and deploy the applications to Oracle’s Hyperion products. The deployment process automatically creates an application in the desired product, such as Financial Management, Profitability and Cost Management, Essbase, or Planning.
To deploy applications, you must be provisioned in Shared Services with the user role of Application Creator for the specific product type. See “Security” on page 30 for additional information.

The deployment process involves:

- **Validating the Application**—The application is validated for a product, such as Financial Management, Profitability and Cost Management, or Planning.
  
  If the application is missing dimensions or other required information, the deployment is aborted. Also, if another deployment for the application is in progress, the request is cancelled.

- **Selecting the Environment Information for Deployment**—Select the environment to which you are deploying the application.

- **Export and Deploy the application**—When you deploy an application, the deployment job begins and the application is exported from Performance Management Architect to a specific Hyperion product. When you initiate deployment, the status of the application displays “Deployment Pending” in the Application Library.

- **Product Application Creation**—In new deployments, the Hyperion product creates the application and the Hyperion product server attempts to load the metadata. After deployment is complete, the status and deployment timestamp is updated in the Application Library. Then, the deployment job is marked as “Completed.” For information on viewing deployment jobs, see Chapter 18, “Managing Jobs.”

**Note:** If you selected a specific product type when creating the application, the application is deployed to that product type. If you selected “Generic” for the application type, you must specify the product type when you deploy.

### Validating Applications

To validate an application:

1. **Right-click the application and select Validate, Application.**
   
   The Job Task dialog box is displayed.

2. **Click the link to navigate to the Library Job Console.**

3. **Click the validation log link in the Attachments area.**

4. **Click Open to open the log file in a text editor.**

   Below is an excerpt from a validation log:

   ```plaintext
   Validation Log
   =============

   Job Id: 191
   Created : 3/4/2008 8:08:30 PM
   Application : Consol
   ```
Validation Summary
==================
Result: Success
Summary: There were 0 errors and 0 warnings during the validation process. For details refer the error and warning section of this log.

For detailed information on application validations, see Appendix F, “Application Validations.”

Reviewing Deployment Logs for Errors

After you deploy applications, you can view the Summary area and the deployment log (if available) in the Library Job Console. See Chapter 18, “Managing Jobs.”

For Consolidation applications, the deployment log (displaying in the Library Job Console) includes the Financial Management metadata load file. In most cases, invalid members and errors appear in the log and it is not necessary to access Financial Management logs to access additional information. However, in rare cases, where the metadata log does not provide enough information, you can check for more detail in the Financial Management application server log.

For Planning applications, the Library Job Console displays the error stack trace of the last deployment exception which aborted the deployment in the Summary area. If a deployment fails, you should view the Planning application server log for all error messages, including any unloaded members, details about unloaded members, hard validation errors, and cube refreshes.

For Profitability applications, the Library Job Console displays the deployment log. If there are errors, click the Validation Log link in the Attachments area to view a complete listing of all validation errors or messages.

Deploying Planning Applications

Planning requires certain dimensions, depending on how the application is set up. To avoid validation errors, ensure that the application includes all required dimensions. For Planning dimension requirements, see Appendix B, “Working with Planning Dimensions.”

The deploy process creates:

- Tables and values in the Planning database.
- An application and outline in Essbase without the need to refresh the cube from the Planning Web user interface.
- HSP_Rates, for multi-currency applications, upon deployment (it is not a dimension that you create manually).

Note: Be sure to start the Planning application server before deploying any Planning applications. Deployment of applications from Performance Management Architect to Planning is a long-running operation. The initial deployment may take more time than subsequent re-deployments.
Before deploying Planning applications, be sure that all the properties are correct and meet your needs. If you need to update any settings, do so before deploying. If applications are not set up correctly, deployment fails and error messages are displayed. To deploy correctly, Planning applications must meet the qualifications specified in this chapter, Chapter 3, “Importing Metadata,” and Appendix B, “Working with Planning Dimensions.” For example:

- The Start Year property must be defined. The year must be four digits long, such as 2008.
- Year dimensions must start with FY, followed by a two-digit year, such as FY08.
- The first year member in the Year dimension and the Start Year property must describe the same year. For example, if the Start Year is 2008, the first year in the Year dimension must be FY08.
- For 12 Month Base Time Period applications only, the Start Month property must be defined.
- The Default Alias Table property must be defined. For information, see “Alias Dimensions” on page 78.
- The Default Currency property must be defined.
- The application must include the predefined dimensions. Single-currency applications require Scenario, Version, Entity, Account, Period, and Year. Multiple-currency applications require Scenario, Version, Entity, Account, Period, Year, and Currency.
- The application must meet the qualifications specified in Appendix B, “Working with Planning Dimensions.”

Some information cannot be changed after the application is deployed, such as the application name and data source. When the application is deployed, any unreferenced UDAs are removed from the application. See “Working with User-Defined Attributes” on page 132.

**Caution!** Each data value in Planning is identified by a set of dimension members and a plan type. Excluding dimension members from an application can translate to a delete action on redeployment. If excluded members are used elsewhere (such as a selection in a data form), those associations are removed. For information, see “Excluding and Deleting Planning Members” on page 126.

Before excluding members from an application, use the Show Usage feature within Planning to determine where members are used in the application and the implications of excluding dimension members from an application during deployment. For information about the Show Usage feature, see the Oracle Hyperion Planning Administrator’s Guide.

To deploy Planning applications:

1. Click **Navigate**, then **Administer**, then **Application Library**.
2. Right-click the Planning application, then select **Deploy**, then **Application**.

You can also select **Rules** to deploy only rules, or **All** to deploy the application with its business rules. For information on deploying business rules, see the Calculation Manager Online Help.
Applications are validated before they are deployed. Any validation errors display in the Job Console. You will need to correct all validation errors before deploying. For information on resolving business rule errors, see the Calculation Manager Online Help.

The Deploy dialog box displays.

3 Perform these tasks:

If you are redeploying, some options are not available, such as instance (cluster) name, application server, and data source.

a. Select the **Instance Name**.

b. Select the **Application Server**.

c. Select the **Shared Services Project**.

d. **Optional:** If you do not want to save transaction history, select **Purge Transaction History on Success**.

e. Select the **Data Source** used by the application.

f. **Optional:** If you want to create a data source, click the icon next to **Data Source**. For detailed instructions, see “Entering Data Source Information” on page 219.

g. If you are deploying the application for the first time, select **Create Outline** to update the Essbase databases that store application data.

h. **Optional:** To refresh the application database after changing the application structure, select **Refresh Outline**.
i. Optional: Select **Create Security Filters** to store access permissions in an encrypted data file (Essbase.sec). To generate security filters for all users in the application, select **Create Security Filters** but do not select **Validate Security Filter Limit**.

j. Optional: Select **Shared Members Security Filters** to apply access permissions to shared members.

k. Optional: **Validate Security Filter Limit** to identify security filters that exceed the Essbase security filter limit of 64 KB per row. This validates filter size to ensure it does not exceed the size limit before building Essbase security filters.

l. If you are deploying business rules, you can also select **Deploy Rules** or **Continue Deploy Rules Even if Rules Validation Fails**. For information on deploying business rules, see the Calculation Manager Online Help.

4 Click **Deploy**.

**Note:** When you deploy a single-currency application, the Entity member Currency property is set to the application default property.

The Planning application is automatically registered with Shared Services and deployed to Planning. To view progress and error messages, open the Planning application server.

To log in to the Planning application created after deployment, use your user name and password. See the *Oracle Hyperion Planning Administrator’s Guide*.

**Note:** If a deployment is interrupted or deleted, the status may show “deploy pending” and the deployment may time out. The default timeout value is 8 hours. You can change the default in awbconfig.properties. If a deployment times out, you should deploy the application again. Even though the status may indicate that it is in sync with deployment, it may not be, because of the timeout.

### Deploying Consolidation Applications

See the *Oracle Hyperion Financial Management Administrator’s Guide* for information on clearing data from removed dimension members.

1. To deploy Consolidation applications:
   - Click **Navigate**, **Administer**, **Application Library**.
   - Right-click the Consolidation application, select **Deploy**, **Application**.
     
     You can also select **Rules** to deploy only rules, or **All** to deploy the application with its business rules. For information on deploying business rules, see the Calculation Manager Online Help.

2. If the Application Validation Errors dialog box is displayed, fix the errors and then try to deploy again.
   
   The Deploy dialog box is displayed.
4 Perform these tasks:
   a. Select the **Instance Name** (also called a cluster).
   b. Select the **Application Server**.
   c. Select the **Shared Services Project**.
   d. Optional: Select **Purge Transaction history on success**.
   e. Optional: **Check Clear All Metadata and Data**—all dimension members in the application database are deleted as well as any corresponding data, journals, and intercompany transactions.
   f. Optional: **Check Referential Integrity**—checks the metadata against the data to ensure integrity. For example, if you rename members and select Check Referential Integrity, the deployment log lists all artifacts affected by the rename. See the *Oracle Hyperion Financial Management Administrator’s Guide*.

   **Note:** After you deploy an application, you cannot change the Year, Period or View dimensions.

5 Click **Deploy**.

   **Note:** If a deployment is interrupted or deleted, the status may show “deploy pending” and the deployment may time out. The default time out is 8 hours. You can change the default in `awbconfig.properties`. If a deployment times out you should deploy the application again, even though the status may indicate that it is in sync with deployment, it may not be because of the time out.
Deploying Profitability Applications

To deploy a Profitability and Cost Management application in Performance Management Architect:

1. Select Navigate, then Administer, and then Application Library.
2. From the Application Library, select the application to be deployed.
3. Right-click the application name, and select Validate to validate the newly created Profitability and Cost Management application in Performance Management Architect.

See Appendix F, “Application Validations” to view a complete list of the Profitability and Cost Management validation conditions.

When the validation is complete, the Job Console is displayed, showing the associated job number.

4. Click the link for the associated job to view the Job Console.
5. Review the Job Console Summary, and if there are errors, click the validation log link under Attachments to see a complete listing of all validation errors or messages.
6. Fix any errors listed in the validation log.
7. Repeat step 3 to step 6 until the validation succeeds with no errors, and the application is successfully deployed.
8. In the Application Library, right-click the application name, and select Deploy from the drop-down list. The Deploy dialog box is displayed.
9 Provide the following information:

- Enter the name of the application being deployed
- **Optional:** Enter a Description of the application.
- Under **Instance Name**, select the name of the Profitability and Cost Management installation to which you want to deploy the application.

A Profitability and Cost Management application may be installed on a single machine, or on more than one machine as part of a cluster. Each installation, or instance, is displayed on the Instance Name drop-down list. Default is the name of the instance used by the Configurator Tool for the first installation.

- Select the **Application Server**.

- Under **Shared Services Project**, select the Profitability and Cost Management application group.

**Note:** The Profitability and Cost Management group is not displayed the first time the deployment is selected. You must create the Profitability and Cost Management application group or project in the Oracle's Hyperion® Shared Services Console.

10 **Click Deploy.**

The Job Task window is displayed, to confirm the Validation Job has been submitted, and display the Job ID.

11 **On the Job Task window, click the link to display the job status.**

When the job is complete, a message is displayed under **Detail** to indicate the new application has been created and deployed to Profitability and Cost Management. The new application is available for selection.

### Deploying Essbase (ASO) and Essbase (BSO) Applications

The following are required tasks to complete before deploying Essbase applications:

- In the Essbase Administration Services Console, you must register the Analytic Servers that you will use with Performance Management Architect. See the *Essbase Administration Services Online Help* for information on registering.

- You must be provisioned in Shared Services with the user role of Essbase Application Creator (in the User Management Console, Hyperion Shared Services, Global Roles, Application Creator, Essbase Application Creator). See the Refer to the Shared Services documentation for more information on provisioning.

The following are guidelines to consider when deploying Essbase applications:

- Essbase applications do not require a fixed set of dimensions. For example, you can create and deploy an Essbase application containing just one generic dimension and one member.

- You cannot use Performance Management Architect to create Hybrid Analysis or Advanced Relational Access cubes.
A common validation error is that an invalid character exists in a member name. This often occurs when member names contain square brackets ([ ]). To work around this, you can:

- Ignore the validation messages regarding the square bracket as an invalid character.
- In the application, clear the members containing square brackets using the Exclude Member command, described in “Excluding Members” on page 141.

**Note:** There is no difference in the deployment process for Essbase (ASO) or Essbase (BSO) applications.

Properties for Essbase applications, dimensions and members are described in Appendix D, “Working with Essbase Properties.”

Information on Essbase requirements for applications and databases is available in the Oracle Essbase Database Administrator’s Guide and the Oracle Essbase Administration Services Online Help.

To deploy an Essbase (ASO) or Essbase (BSO) application:

1. Click **Navigate, Administer, Application Library**.
2. Right-click the Essbase (ASO) or Essbase (BSO) application, select **Deploy**.
3. If the Application Validation Errors dialog box is displayed, click **Deploy** again.

   **Note:** In the Application Validation Errors dialog box, you may also click View Errors to bring up the Validation Summary dialog box. Click Details to review the errors, and then edit the application to make the necessary corrections. Once you make the corrections, begin the deployment process again.

The Deploy dialog box is displayed.

4. **Perform these tasks:**
   a. Select the **Instance Name** of the Essbase Server instance to which you want to deploy an application.
      
      This is the name you created when you registered Essbase Server with Performance Management Architect. See the Essbase Administration Services Online Help for instructions on registering.
   b. **Optional:** Select **Clear All Data** if you are redeploying (deploying over a previously-deployed application) and want to clear the data in the existing application.

5. **Click Deploy.**
Note: If a deployment is interrupted or deleted, the status may show “deploy pending” and the deployment may time out. The default time out is 8 hours. You can change the default in awbconfig.properties. If a deployment times out you should deploy the application again, even though the status may indicate that it is in sync with deployment, it may not be because of the time out.

Redeploying Applications

Redeploying performs a merge or a replace of the application metadata based on the types of changes made since the last deployment. For example, if any members have been moved or deleted in any hierarchies in the application, then the redeployment of the metadata is performed using a replace mode. If only property updates were made to the application since the last deployment, then the redeployment of the metadata will be performed using a merge mode.

➢ To redeploy applications, right-click the application and select Deploy.


Considerations for Redeploying Planning Applications

Before redeploying, be sure the properties are correct and meet your needs. If applications are not set up correctly, deployment fails and error messages are displayed. After a Planning application is deployed, you cannot change these properties:

bullet Whether the application uses a single currency or multiple currencies. For example, after you deploy with Multiple Currency selected, you cannot later clear Multiple Currency to use a single currency. Likewise, with a single-currency application, you cannot later select Multiple Currency.

bullet The default application currency. For example, if you use USD, you cannot later change it to EUR.

bullet The type of calendar. For example, if you set Base Time Period to 12 Months, you cannot later change it to Quarters.

bullet The fiscal start month. After you set the Start Month, you cannot change it.

bullet The start year. For example, if you set the Start Year to 2008, you cannot change it to 2007. You can, however, add years after the first year.

bullet Any years added. After years are added, you cannot remove them. For example, if the deployed application includes FY08, you cannot remove this year.

bullet The Weeks Distribution pattern. For example, if you set Weeks Distribution to 445, you cannot later change it to 544 or Even.

bullet The plan types that are contained in the application. For example, if you deploy an application with plan types Plan1 and Plan2 selected, you cannot later add Plan3 or remove Plan2 from this application. You can change the Valid for Plan type for dimension members at any time. However, you cannot change the plan types contained in the application after deployment.
Dimensions added. You can add dimensions up to a total of twenty, including the predefined dimensions. You can rename dimensions by changing the dimension alias, but you cannot delete them. See “Setting the Dimension Alias” on page 185.

Predefined dimensions. You cannot delete the predefined dimensions. Single-currency applications require these dimensions: Scenario, Version, Entity, Account, Period, and Year. Multiple-currency applications require these dimensions: Scenario, Version, Entity, Account, Period, Year, and Currency.

Caution! Each data value in Planning is identified by a set of dimension members and a plan type. Excluding dimension members from an application can translate to a delete action on deployment. For information, see “Excluding and Deleting Planning Members” on page 126.

Before excluding members from an application or deploying to Planning, use the Show Usage feature within Planning to determine where members are used in the application and the implications of excluding dimension members from the application on deployment. For information about the Show Usage feature, see the Oracle Hyperion Planning Administrator’s Guide.

**Redeploying Planning Applications**

To redeploy Planning applications:

1. Right-click a Planning application and select Deploy.
2. Select the Shared Services Project.
   
   The Shared Services Project is only available after an application is registered in Shared Services. Applications are automatically registered upon deployment in Performance Management Architect, or if you register the application using Shared Services.
3. Select Refresh Outline and select additional security options, as necessary. See “Deploying Planning Applications” on page 202.
4. Click OK.

   The application is deployed to Planning. To view progress and error messages, open the Planning Application Server.

   **Note:** When you redeploy a single currency application, the Entity member Currency property will be set to the application default property.

**Troubleshooting Application Problems**

In some cases, the state of Performance Management Architect applications may become out of sync with the Dimension Server, object repository, Shared Services, or target Hyperion product.
This may occur if your database becomes corrupted or has had a restoration or migration failure. You have two options to troubleshoot application problems:

- View orphaned applications. See “Viewing Orphaned Applications” on page 212.
  
  Orphaned applications are applications that exist in the Dimension Server, but are corrupted or missing in the object repository. Although orphaned applications exist in the Dimension Server, they do not display in the Performance Management Architect Application Library user interface.

- Run tests on applications that exist in the Application Library. See “Running Application Diagnostics” on page 212.

  The application diagnostics tool enables you to run tests on applications that are visible in the Application Library. Orphaned applications cannot be accessed in the application diagnostics tool.

**Note:** These features are available only in Performance Management Architect 11.1.1.3 Service Pack 4 or later.

### Viewing Orphaned Applications

Orphaned applications are applications that are missing from the Application Library but have not been deleted from the Performance Management Architect Dimension Server.

To view orphaned applications:

1. In the Application Library, select View, and then Orphaned Applications.
2. If orphaned applications are displayed, select a solution: Resolve or Delete.
   
   You can use the “Choose Option” column to resolve the orphaned application problem or delete the application.

   Resolve—Brings the application back into the Application Library. When the orphaned application is brought back, it is in a “Not Deployed” state. In some cases, this state can cause inconsistencies with the Dimension Server. However, because you can view the application, you can resolve any inconsistencies by running application diagnostics. See “Running Application Diagnostics” on page 212.

   Delete—Removes the application from the Dimension Server.
3. Click Apply.
4. After resolving the problem, click Cancel to close the dialog box.

### Running Application Diagnostics

You can run application diagnostics, and if a diagnostics test fails, Performance Management Architect provides an automated solution or manual steps to resolve the problem.
Some tests are dependent on others. There are two test categories (listed in the order in which they run):

1. Performance Management Architect inconsistencies
2. Shared Services tests

If a Performance Management Architect test fails, the other dependent tests are not run and show “Not Applicable”. To run a dependent test, you should deselect the dependent tests.

**Note:** You must have the LCM Administrator security role to run application diagnostics on any Performance Management Architect application. For information on Performance Management Architect security roles, see the *Oracle Hyperion Enterprise Performance Management System User and Role Security Guide*.

To diagnose application problems:

1. **In the Application Library, right-click an application and select Diagnostics.**

   The Application Diagnostics dialog box shows the application name and an overall status of the testing below the application name. For example, before you run selected tests, the status is “Not Tested.” After you run the tests, the status may show “Completed With Failure” if some tests failed, “Completed With Errors” if errors occurred, or “Completed Successfully” if all tests passed.

2. **Review the tests available to run in application diagnostics. See “Application Tests” on page 213.**

3. **Select the tests you want to run, and then click Run Selected Tests.**

   Only Performance Management Architect tests are selected by default. You can use the Select All toggle to select or clear all tests.

   The status column for each test displays “Passed,” “Failed,” or “Error” for each individual test. If it is unnecessary to run the test for the application, or the application type does not support the test, the status “Not Applicable” is displayed. Deselected tests display a status of “Not Tested.”

4. **If a test fails, select the failed test to display details and choose a solution. Then, click Apply.**

   For a failed test example, see “Troubleshooting Application Problems” on page 211.

5. **Click Yes to confirm the changes.**

6. **Click Close.**

**Application Tests**

The following tests are available to run on applications:

- **Partially deleted**—The application partially resides in the Dimension Server database and not in the object repository database. This problem can occur in cases where a database restoration was interrupted or a database has become corrupted. If this test fails, delete the application in Performance Management Architect and recreate the application.
This solution deletes the application from Performance Management Architect only. If this application has been deployed, manually delete the application from Shared Services and from the appropriate Hyperion product.

- **Inconsistent status**—The status of the application is not consistent throughout the database. This scenario can occur if the application status is not consistent in the object repository database. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem: Synchronize the status information in the database.

  This solution synchronizes all the status information in the database to ensure consistency.

- **Incomplete pending deployment**—The application is in an incomplete deployment state. To resolve the problem:
  - Update the application to reflect a deployed state.
    
    This solution is available if the application has been successfully deployed at least once. This reverts the state of the application to the previous successful deployed state—enabling you to redeploy.
  - Update the application to reflect a not deployed state.
    
    This solution is available if the application has never been successfully deployed. This reverts the application to a not-deployed state—enabling you to deploy the application again.

- **Incomplete deployment**—The application state reflects a partially completed deployment. This scenario can occur when the application is in a “deploy pending” state in the Dimension Server database and in a “deployed” state in the object repository database. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem: Redeploy the application.

  This solution completes the deployment in the Dimension Server database and synchronizes the status between the Dimension Server and the object repository.

- **Partially deployed**—The application is currently in a partially deployed state. This scenario can occur when the application is not deployed in the Dimension Server database and is deployed in the object repository database. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem:
  - Update the application to reflect a “not deployed” state.
    
    You should manually delete the application, if it exists, from any Hyperion products.
  - Delete the application from Performance Management Architect only.
    
    You should manually delete the application, if it exists, from any Hyperion products.

- **Partially deploy pending**—The application is currently in a partial deploy pending state. This scenario is similar to the “incomplete deployment” scenario, yet there are further inconsistencies. If the application is in a partially deploy pending state, the pending deployment may not be the current deployment; therefore, it is deployment pending from a previously attempted deployment. This scenario can occur if there was a system failure when the application was deployed, followed by a correction to the application (a restoration
to a deployed state), followed by another failure to deploy to the Hyperion product. Database corruption can also cause this problem. To resolve the problem:

- Update the application to reflect a deployed state.
  
  This solution is available if the application has been successfully deployed at least once.

- Update the application to reflect a “not deployed” state.
  
  This solution is available if the application has never been successfully deployed.

- **Inconsistent deployment state (deploy pending vs. not deployed)—**The application is in both a not deployed and deploy pending state. This scenario can occur when the application is not deployed in the Dimension Server database and in a “deploy pending” state in the object repository database. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem: Update the application to reflect a “not deployed” state.

  This solution reverts the application to its initial “not deployed” state.

- **Deploy pending—**The application is currently in a “deploy pending” state. This problem can occur in instances where the Hyperion product that the application was deployed to became unresponsive. To resolve the problem:

  - Update the application to reflect a deployed state.
    
    This solution is available if the application has been successfully deployed at least once. This reverts the state of the application to the previous successful deployed state—enabling you to redeploy.

  - **Note:** If an application has not been deployed, you can resolve the problem by returning the application to a “not deployed” state or you can promote the application to a “deployed state”.

  - Update the application to reflect a not deployed state.
    
    This solution is available if the application has never been successfully deployed. This reverts the application to a not-deployed state—enabling you to deploy the application again.

- **Delete pending—**The application is in a “delete pending” state. This scenario can only occur with a deployed application. Since the application is deployed, an application may be in a “delete pending” state when you attempt to delete the application from the Hyperion product, such as Planning, and the product becomes unresponsive. To resolve the problem:

  - Delete from Performance Management Architect only.
    
    If the application resides in the Hyperion product, such as Financial Management or Shared Services, manually delete it.

  - Update the application to reflect a deployed state.
    
    This solution reverts the application to “deployed” and removes the “deploy pending” state information, enabling you to attempt to delete the application in the Hyperion product to which it was deployed.
- **Application reserved for delete**—The application has been reserved for deletion by the user but has not been deleted. This scenario can occur if an application is in the update process from a “delete pending” state. For example, if an attempt to delete the application failed, and the Dimension Server database was not updated to reflect that the application is not in a delete pending state. This problem can occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem: Remove the deletion reservation for the user and reset the application as valid.

This solution allows you to delete the application again.

- **Deployed but missing from Shared Services**—The application does not exist in Shared Services but appears in Performance Management Architect. This problem can occur in cases where Shared Services stopped working. To resolve the problem:
  - Delete from Performance Management Architect only.
    - Use this solution only if you know that the application has not been deployed to a Hyperion product and currently exists in that product.
  - Change status in Performance Management Architect to “Not Deployed” and perform necessary cleanup.
    - Changing the status of the application reverts the application to a “not deployed” state in Performance Management Architect, enabling you to redeploy the application.
  - Reregister the application with Shared Services.
    - This solution synchronizes the application in Performance Management Architect and Shared Services.

- **Not deployed but in Shared Services**—The application exists in Shared Services but shows as “not deployed” in Performance Management Architect. This problem can occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem:
  - Delete the application from Performance Management Architect.
    - This solution deletes the application from Performance Management Architect only. If the application resides in Shared Services or in the Hyperion product, such as Financial Management, manually delete it.
  - Manually delete the application from Shared Services.
    - To delete the application from Shared Services, log in to Shared Services, locate the project that the application was deployed to, and then delete the application.

- **Inconsistent deployment state (deployed vs. deploy pending)**—The application is in both a “deployed” and a “deploy pending” state. This scenario can occur when the Dimension Server database shows that the application is deployed and the object repository database shows that the application is deploy pending. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem: Update the application to reflect a deployed state.

This solution synchronizes the object repository database with the Dimension Server database and places the application into a deployed state.
Inconsistent deployment state (deployed vs. not deployed)—The application is in both a deployed and not deployed state. This problem can occur when the Dimension Server database shows that the application is deployed and the object repository database shows that the application is not deployed. This problem can also occur in cases where a database restoration was interrupted or a database has become corrupted. To resolve the problem:

- Delete from Performance Management Architect only.

  *Available if the application is registered in Shared Services.* This solution deletes the application from Performance Management Architect. You should manually delete the application from Shared Services.

- Update the application to reflect a not deployed state.

  *Available if the application has not been registered in Shared Services.* This solution reverts the application to a not deployed state.

Invalid deployment information—The application is deployed to an invalid location. To resolve the problem is a two-step process:

1. Retrieve the instance name and cluster for potential deployed locations.
2. Select the correct deployment location and synchronize the deployment data with the new location.

Example: Test Failed—Deployed but Missing from Shared Services

If the “Deployed but missing from Shared Services” test fails, the application exists in Performance Management Architect but is missing from Shared Services. In this case, several solutions are displayed. For example, you can select the option to change the status in Performance Management Architect to “Not Deployed” and perform the necessary cleanup, and then click Apply.

After you click Apply, a confirmation dialog box is displayed.
After you click Yes in the Warning dialog box, the “Deployed but missing from Shared Services” test displays the “Passed” status.

In some cases, even though this test has passed, another test may fail. Consider this scenario:

1. You run the application diagnostics tool on an application and the “Deployed but missing from Shared Services” fails.
2. You apply the “Change status in EPMA to 'Not Deployed' and perform necessary cleanup” solution.
   
   The first test passes; however, now the “Not Deployed status in EPMA, but in product” test fails.

   The application diagnostics tool automatically detects this new problem. In this case, the deployment status changed in Performance Management Architect when you applied the first solution. Now, the application is not deployed in Performance Management Architect, but still exists in the product.

3. To correct this problem, you select the “Not Deployed status in EPMA, but in product” and select the appropriate solution.

   All tests now pass.

Managing Planning Data Sources

Data sources link the relational database and the Essbase server. For Planning, each application must be associated with a data source. You can view summary details for a data source, including name, description, Unicode support, use, database type, name, server, and user name, and Essbase server information.

To create and update data sources, see “Entering Data Source Information” on page 219. To delete data sources, see “Deleting Data Sources” on page 221.

Note: Each application must also be associated with an instance. You work with instances in the EPM System Configurator. For more information, see the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.

Starting the Data Source Wizard

You can create and update data sources for Planning applications using the Data Source wizard. Data sources link the relational database and the Essbase Server. Ensure that the Essbase Server is running before completing this task.
To delete data sources, see “Deleting Data Sources” on page 221.

To start the Data Source wizard:

1. In the Application Library, select Tools, then select Manage Planning Data Source.

2. Perform one action:
   - To create a data source, select File, then New, then Data Source.
   - To update a data source, right-click the data source and select Edit.


**Entering Data Source Information**

To enter data source information:

1. In the Data Source wizard navigation frame, click 1. Data Source Details.

   To start the wizard, see “Starting the Data Source Wizard” on page 218.

2. Enter the data source name.

   After the data source is created, you cannot update the name.

3. Optional: Enter a description of the data source.

4. Optional: Select Supports Unicode to set the application to Unicode mode. Unicode-mode applications support multiple character sets.

5. Click Next, and continue with “Selecting the Database” on page 219.

**Selecting the Database**

The database must be connected, and must be a supported database type. For information on supported databases, see the Oracle Hyperion Enterprise Management System Installation Start Here guide.

**Note:** Ensure that Planning is registered with Shared Services and is deployed to an application server before configuring the database. If you are configuring a database for Planning and a previously configured database is detected, you are prompted to create a new database or reuse the existing database. If you are configuring a product upgrade, the fields on this page are read-only except for the password.

You can select an option to set the application to Unicode mode. Unicode-mode applications support multiple character sets, and Essbase uses UTF-8 encoding to interpret and store character text. Character-based artifacts in Unicode-mode applications, such as member and alias names, can include characters from different languages. For more information, see the Oracle Essbase Database Administrator’s Online Help.
To select the database:

1. In the Data Source wizard navigation frame, click **2. Database Details**.
   
   To start the wizard, see “Starting the Data Source Wizard” on page 218.

2. If the **Database Type** field is activated, select **MS SQL Server**, **Oracle**, or **IBM DB2**.

3. Add or update the database configuration details:
   - **Server**: The server that hosts the database.
   - **Port**: A port number. For information about default ports, see the Oracle Hyperion Enterprise Performance Management System Installation Start Here guide.
   - **Database**: The name of the database.
   - **User Name**: The database user name.
   - **Password**: The database password.

4. **Optional**: Click **Test Connection** to test the connection to the data source.

5. Click **Next**, and continue with “Configuring the Essbase Server” on page 220.

### Configuring the Essbase Server

To configure the Essbase Server:

1. In the Data Source wizard navigation frame, click **3. Essbase Server Details**.
   
   To start the wizard, see “Starting the Data Source Wizard” on page 218.

2. Update the server details:
   - **Essbase server name**
     
     You can list the Essbase server name along with the part number, for example, `localhost:1423`.
   - **Essbase user name**
   - **Essbase password**

3. **Optional**: Click **Test Connection** to test the connection to the Essbase server.

4. Click **Next** and continue with “Viewing Summary Details” on page 220.

### Viewing Summary Details

After viewing details, you can create or update the data source.

**Note:** After creating the data source, you can use Oracle’s Hyperion Enterprise Performance Management System Configurator to update instances as necessary. For more information, see the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.
To view summary details:

1 In the Data Source wizard navigation frame, click **4. Summary Details**.
   
   To start the wizard, see “Starting the Data Source Wizard” on page 218.
2 If you are satisfied with the settings, click **Finish**.
   
   To update any settings, click **Back**, make the changes, then return to this tab and click **Finish**.

### Deleting Data Sources

You can delete data sources that are not associated with applications.

To delete data sources:

1 In the Application Library, select **Tools**, then select **Manage Planning Data Source**.
2 Right-click a data source that is not associated with an application, then select **Delete**.
   
   If the data source is associated with an application, this option is not available.
3 At the prompt, click **OK** to delete the data source.
In Managing Business Rules:

- Introduction to Calculation Manager
- Designing Business Rules and Business Rulesets
- Working with Templates
- Using Components to Design Business Rules and Templates
- Using Member Selection, Variables, and Functions to Design Components
- Validating and Deploying Rules, Rulesets, and Formula and Script Components
- Launching Essbase Business Rules
- Migrating Business Rules
- Exporting and Importing Business Rules, Business Rulesets, Templates, and Formula and Script Components
About Calculation Manager

You use Calculation Manager to create, validate, deploy, and administer sophisticated calculations that solve Financial Management, Planning, and Essbase business problems. You access Calculation Manager from within EPM Workspace.

There are three types of objects that can be calculated in Calculation Manager:

- Rulesets, which are objects that contain rules that can be calculated simultaneously or sequentially (See Chapter 9, “Designing Business Rules and Business Rulesets.”)
- Rules, which are objects that contain components and templates (See Chapter 9, “Designing Business Rules and Business Rulesets.”)
- Components, which are objects that contain formula components, script components, condition components, range components, and fixed loop components (See Chapter 11, “Using Components to Design Business Rules and Templates.”)

Calculation Manager Prerequisites

Before you log onto EPM Workspace to access Calculation Manager, you must complete the following tasks:

1. You must install and configure Shared Services. (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)
2. You must install and configure EPM Workspace. (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)
3. (Performance Management Architect application users only) You must install and configure Performance Management Architect. (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)

**Note:** If you are working with a Classic Planning or Financial Management application or an Essbase block storage application, you do not need to install Performance Management Architect.

4. You must install and configure Calculation Manager. (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)

5. **Optional:** You must install and configure Financial Management, Planning, and/or Essbase if you want to deploy business rules to these products. (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)

6. There must be at least one Financial Management, Planning, or Essbase application with metadata in Performance Management Architect.

   See Part 2 of this guide.

7. You must provision users and assign roles in Shared Services. (See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.)

8. You must ensure that these servers are installed and running: (See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.)

   - Shared Services Server
   - EPM Workspace Server
   - Performance Management Architect Application Server
   - Performance Management Architect Dimension Server

   **Note:** The Performance Management Architect Application server and the Dimension server only need to be running if you want to work with Performance Management Architect applications. If you want to work with Classic Financial Management or Planning applications, or with Essbase block storage applications, these servers need not be running.

   - Financial Management Server, Planning Server, and/or Essbase Server, if you want to deploy business rules and rulesets to Financial Management, Planning, and/or Essbase applications.
   - Calculation Manager Server

   **Note:** If any of these servers is installed as a service, it may be started automatically.

9. You must launch EPM Workspace and log on. (See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.)

10. You must select Navigate, Administer, Calculation Manager to launch Calculation Manager.
Calculation Manager Security

In Calculation Manager, your ability to create and edit objects (that is, business rules, business rulesets, components, and templates) is determined by the role you are assigned in Shared Services and your ownership of objects in Calculation Manager. (For information on Financial Management, Planning, and/or Essbase roles and security, see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.)

There are three ways in which your assigned role affects your ability to create, edit, and delete business rules and other objects in Calculation Manager:

- If the application you are working in is not deployed, you must have one of four roles to create, edit, and delete business rules and other objects in Calculation Manager:
  - The global Calculation Manager administrator role enables you to create, edit, and delete Planning, Financial Management, and Essbase objects.
  - The Financial Management Calculation Manager administrator role enables you to create, edit, and delete Financial Management objects.
  - The Planning Calculation Manager administrator role enables you to create, edit, and delete Planning objects.
  - The Essbase administrator role enables you to create, edit, and delete Essbase objects.

  Note: The Essbase administrator role is inherited from Essbase; there is no Essbase Calculation Manager administrator role.

After you deploy business rules and other objects, you define launch security. Then you can launch Financial Management business rulesets in Financial Management, Planning business rules in Planning, and Essbase business rules in Oracle Essbase Administration Services or Calculation Manager.

  Note: You can launch Financial Management business rulesets only in Financial Management and Planning business rules only in Planning.

- If the application you are working in is deployed, and you have administrator privileges for that application (that is, you have the role of Financial Management Calculation Manager administrator, the application specific role of Planning administrator, or the application specific role of Essbase administrator for the deployed application), you can create, edit, and delete business rules belonging to that application.

- If the application you are working in is deployed, and you have designer privileges for that application (that is, you have the application specific role of Financial Management Calculation Designer or Planning interactive user for the deployed application), you can create, edit, and delete your own rules, and see other users’ rules. You cannot edit another user’s rules unless the other user assigns ownership of the rule to you using the Change Ownership feature. (See “Changing the Owner of an Object” on page 274.)

  Note: If the application you are working in is deployed, and you have the application specific role of Financial Management viewer or Planning view user, you can view rules only.
Logging on to EPM Workspace and Accessing Calculation Manager

To access Calculation Manager, you must log on to EPM Workspace and launch Calculation Manager from within it.

To log on to EPM Workspace and access Calculation Manager:

1. From a Web browser, enter `http://<WebServer>:<port>/workspace/`, where `<WebServer>` is the Web server computer host name and `<port>` is the Web server listen port. For example, the port number is 19000 if you are using the Apache instance configured with Oracle's Hyperion Reporting and Analysis.

   **Note:** The Shared Services server, the EPM Workspace server, the Calculation Manager server, and the Performance Management Architect application server and dimension server (if you want to work with Performance Management Architect applications) must all be running before you launch Calculation Manager. See the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

2. In the EPM Workspace logon dialog, enter your system user name and password and click Log On.

   For information on setting up the URL, see the *Oracle Enterprise Performance Management Workspace Administrator’s Guide*.

   **Note:** If an error message displays indicating that Performance Management Architect is unable to authenticate the user, ensure the following: the user is provisioned for the application (if not, use Shared Services to provision the user), or the user’s token or session is not timed out (in this case, log off, then log back on to start a new session).

3. To access Calculation Manager, select **Navigate, Administer, Calculation Manager**.

   The System View of Calculation Manager is displayed with a list of the Financial Management, Planning, and/or Essbase block storage applications to which you have access.

   Depending on the user role you are assigned in Shared Services (you must have a role of interactive user or administrator), you can use Calculation Manager to view, create, and manage business rules, business rulesets, and components. (See the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide*.)

Using Workspace and Calculation Manager Toolbars

When you are working in Calculation Manager, you have access to toolbars from EPM Workspace, Performance Management Architect, and Calculation Manager. This section contains an overview of the available toolbars.
Standard Toolbar

The Standard toolbar contains buttons for features and tasks that are common to the applications within EPM Workspace.

Table 17  Standard Toolbar Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Home Icon" /></td>
<td>Not applicable</td>
<td>Displays the default startup option for the content area</td>
</tr>
<tr>
<td><img src="image" alt="File Icon" /></td>
<td>File, New, Document</td>
<td>Creates documents, such as books, batches, analysis documents, and scheduled batch jobs</td>
</tr>
<tr>
<td><img src="image" alt="Open Icon" /></td>
<td>File, Open, Document</td>
<td>Opens repository documents</td>
</tr>
<tr>
<td><img src="image" alt="Explore Icon" /></td>
<td>Navigate, Explore</td>
<td>Displays Explore, to display the repository as a file management system</td>
</tr>
<tr>
<td><img src="image" alt="Logoff Icon" /></td>
<td>File, Logoff</td>
<td>Ends the current session</td>
</tr>
<tr>
<td><img src="image" alt="Help Icon" /></td>
<td>Help, Help on This Topic</td>
<td>Displays help for the page displayed in the content pane</td>
</tr>
</tbody>
</table>

Calculation Manager Toolbar

The Calculation Manager toolbar displays buttons specific to Calculation Manager, in addition to EPM Workspace buttons. Not all buttons display in all views and designers.

Table 18  Calculation Manager Toolbar Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Menu Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="System View Icon" /></td>
<td>View, System View</td>
<td>Displays the main view within Calculation Manager. (This is the default view.)</td>
</tr>
<tr>
<td><img src="image" alt="List View Icon" /></td>
<td>View, List View</td>
<td>Displays a list of objects that you can filter by application type, application, object type, calculation or plan type, and deployment and validation status.</td>
</tr>
<tr>
<td><img src="image" alt="Custom View Icon" /></td>
<td>View, Custom View</td>
<td>Displays a view you can customize with folders you create and objects you drag and drop into them.</td>
</tr>
<tr>
<td><img src="image" alt="Filter Icon" /></td>
<td>Tools, Filter</td>
<td>Opens the Filter dialog that you can use to filter objects in the List View. (This button is available from the List View only.)</td>
</tr>
<tr>
<td><img src="image" alt="Refresh Icon" /></td>
<td>Not applicable</td>
<td>Refreshes the view with your latest changes.</td>
</tr>
<tr>
<td><img src="image" alt="Validate Icon" /></td>
<td>Actions, Validate</td>
<td>Validates the object with which you are working in the Rule, Ruleset, and Formula and Script Component designers.</td>
</tr>
</tbody>
</table>
Using Calculation Manager Menus

When you work in Calculation Manager, Calculation Manager menus and menu options display, in addition to EPM Workspace menus and menu options. The menus and options on the menus vary depending on the view you are using and the object with which you are working. This section describes Calculation Manager menus and options that are available from the default view that is displayed when you launch Calculation Manager, the System View.

See these topics:

- “File Menu” on page 230
- “Edit Menu” on page 231
- “View Menu” on page 231
- “Favorites Menu” on page 232
- “Tools Menu” on page 232
- “Actions Menu” on page 233
- “Help Menu” on page 233

File Menu

The File menu enables you to create new objects, open and close objects, import and export objects, print rules, and log off. The File menu options are EPM Workspace and Calculation Manager options. This section describes Calculation Manager File menu options only.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New, Rule</td>
<td>Creates a new rule</td>
</tr>
<tr>
<td>New, Ruleset</td>
<td>Creates a new ruleset</td>
</tr>
<tr>
<td>New, Custom Defined Template</td>
<td>Creates a new custom defined template</td>
</tr>
<tr>
<td>New, Formula Component</td>
<td>Creates a formula component</td>
</tr>
<tr>
<td>New, Script Component</td>
<td>Creates a script component</td>
</tr>
<tr>
<td>Open</td>
<td>Opens an object selected in the application list</td>
</tr>
<tr>
<td>Print</td>
<td>Prints a business rule selected in the application list</td>
</tr>
</tbody>
</table>
### Edit Menu

The Edit menu enables you to edit objects you select. It is available from most of the Calculation Manager views and from within the Rule, Component, and Template designers.

**Note:** This menu is not available in EPM Workspace; it is only available from within Calculation Manager.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit, Delete</td>
<td>Deletes and object selected in the System, List, or Custom View</td>
</tr>
<tr>
<td>Edit, Copy</td>
<td>Copies selected text</td>
</tr>
<tr>
<td>Edit, Paste</td>
<td>Pastes text copied to the clipboard to the right of the cursor</td>
</tr>
<tr>
<td>Edit, Copy Reference</td>
<td>Copies the reference to a component</td>
</tr>
<tr>
<td>Edit, Copy Group</td>
<td>Copies a component group</td>
</tr>
<tr>
<td>Edit, Graphical/Script</td>
<td>Toggles between the graphical representation of a rule or template and its components and the generated script for a rule or template and its components</td>
</tr>
</tbody>
</table>

**Note:** The Edit menu is not available within the Deployment View.

### View Menu

The View menu enables you to open different views in Calculation Manager. The System View is the default view that is displayed when you launch Calculation Manager. When you select the Deployment View, Calculation Manager leaves the System View open and opens the Deployment View in a different tab. When you select the List or Custom View, Calculation Manager closes the System View and opens the List View or Custom View in the same tab.

The View menu options are EPM Workspace and Calculation Manager options. This section describes Calculation Manager View menu options only.
Table 21   View Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
</table>
| View, View Pane       | In the Custom View, Rule Designer, Ruleset Designer, Template Designer, and Component Designer, displays or hides a list of existing and/or new objects that you can add to rules, rulesets, components, and templates by dragging and dropping them.  
**Note:** This is the only View menu option available from within the Rule Designer, Ruleset Designer, Template Designer, and Component Designer.                                                                 |
| View, List View       | Displays a list of the objects you select on the Filter dialog. The filter dialog enables you to create a filtered list, by application type, of applications, calculation types, plan types, or databases, and objects.                                                                                                                      |
| View, System View     | Displays a list of the Financial Management, Planning, and/or Essbase applications, calculation types, plan types, or databases, and objects to which you have access. (This is the default view in Calculation Manager.)                                                                                                                                         |
| View, Custom View     | Displays a view that you can customize with folders you create and objects you drag and drop into them. This view enables you to organize objects in a way that is meaningful to you.                                                                                                      |
| View, Deployment View | Displays a list, by application type and application, of the rules and rulesets that are deployed and not deployed, and their deployment and validation status.                                                                                                                                                                             |

Favorites Menu

The Favorites menu is an EPM Workspace menu that you can use to create bookmarks to pages in EPM Workspace and its products. See the *Oracle Enterprise Performance Management Workspace Users Guide*.

Tools Menu

The Tools menu contains Calculation Manager and EPM Workspace tools that enable you to install other products, search for objects, create a filtered list of objects for the List View, edit the caption of an object, and access the Variable Navigator. This section describes the Calculation Manager Tools menu options only.

Table 22   Tools Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
</table>
| Tools, Filter      | Opens the Filter dialog from which you can filter by application type, application, object type (rule, ruleset, formula or script component, or template), calculation type, plan type, or database, and deployment and validation status. You can also select All to display all application types, all applications, all objects, and all calculation types, plan types, and databases, regardless of their deployment and validation status.  
**Note:** This menu option is not available within the Deployment View. |
| Tools, Variables   | Opens the Variable Navigator in which you can create variables for components  
**Note:** This menu option is not available within the Deployment View.                                                                                                                                  |
| Tools, Quick Edit  | From within the Rule and Template designer, enables you to edit the caption of a component in the flow chart.                                                                                                  |
**Actions Menu**

The Actions menu enables you to validate, migrate, and deploy objects you select in the views and from within the Rule, Ruleset, Template, and Component designers. All Actions menu options are not available from within all views and designers.

**Note:** The Actions menu is available from within Calculation Manager only.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actions, Validate</td>
<td>Validates the rule, ruleset, script, formula component, or template you selected</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This is the only Actions menu option available from within the Deployment View.</td>
</tr>
<tr>
<td>Actions, Migrate</td>
<td>Migrates the rules or rulesets you selected</td>
</tr>
<tr>
<td>Actions, Deploy</td>
<td>Deploys the rules or rulesets you selected</td>
</tr>
<tr>
<td>Actions, Quick</td>
<td>Deploys the rule in fewer steps than regular deployment</td>
</tr>
<tr>
<td>Deploy</td>
<td><strong>Note:</strong> This feature is available only from within the Rule Designer for Planning and Essbase business rules. Planning rules are deployed by default to Planning; Essbase rules are deployed by default to Essbase.</td>
</tr>
</tbody>
</table>

**Help Menu**

The Help menu enables you to access Calculation Manager Help, help for other products in EPM Workspace, and other resources on the Oracle Web site.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help, Help on this Topic</td>
<td>Launches context-sensitive help for the Web page you are on</td>
</tr>
<tr>
<td>Help, Contents</td>
<td>Launches the Calculation Manager help system (or the help system for the product in which you are working)</td>
</tr>
<tr>
<td>Help, Oracle Support</td>
<td>Launches the support pages of the Oracle Web site</td>
</tr>
<tr>
<td>Help, Oracle Technology Network</td>
<td>Launches the Oracle Technology Network pages of the Oracle Web site</td>
</tr>
<tr>
<td>Help, Oracle Web site</td>
<td>Launches the Oracle Web site</td>
</tr>
<tr>
<td>Help, About EPM Workspace</td>
<td>Launches copyright and version information about EPM Workspace</td>
</tr>
</tbody>
</table>
Using Calculation Manager Flow Charts

You can view rules and templates, and the components that comprise them, in a flow chart within the Rule Designer and the Template Designer. When you open a rule or template, you can move amongst the components that comprise it (for example, formulas, scripts, conditions, ranges, and loops) by selecting them in the flow chart. You can also increase or decrease the size of the flow chart to view or hide details of the components.

When you select a component in the flow chart, its properties, usages, and other information are displayed in tabs below the flow chart. As you move amongst the components, the tabs below the flow chart change. For example, if you open a business rule that contains a formula and a script component, and select the formula in the flow chart, the properties of the formula (its name, its description, and the application and application type to which it belongs), the usages of the formula (which rules and templates in which it is used), and the text of the formula (the variables, members, and functions) are displayed in the tabs below the flow chart. Then if you select the script component in the rule's flow chart, the text of the script and its properties and usages are displayed in the tabs below the flow chart.

Using Calculation Manager Views and Filters

Views enable you to see Calculation Manager objects in different contexts. For example, the Deployment View displays objects according to whether they are deployed or not deployed. The Custom View displays objects according to filters and criteria that you select.

See these topics:

- “List View” on page 234
- “System View” on page 236
- “Custom View” on page 237
- “Deployment View” on page 238
- “View Pane” on page 239

List View

The List View contains a filtered list of Financial Management, Planning, and/or Essbase applications, calculations types, plan types, or databases, and objects (rulesets, rules, scripts, formula components, and templates) according to filter criteria you specify. From the List View, you can do these tasks:

- Create, open, rename, delete, refresh, and close Calculation Manager objects, EPM Workspace pages, and other documents
- Set preferences
- Import and export objects
- Show the usages of objects
- Create a copy of objects
Filtering Objects in the List View

You can use filters in the List View to filter objects according to their application type (Financial Management, Planning, and/or Essbase), their application, their calculation type, plan type, or database, their object type (that is business rules, business rule sets, formula and script components, and templates), and their deployment or validation status.

To create a filtered list of objects in the List View:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, select View, List View.

   The Filter dialog is displayed the first time you open the List View. If you select filtering options, then close the List View to work in the System or Custom View, when you reopen the List View, the filter dialog is not displayed. If you want to change the filtering options when you reopen the List View, select Tools, Filter to open the Filter dialog.

3. In the Filter dialog, on Filter Options, under Application Type, select Financial Management, Planning, or Essbase. (Financial Management is displayed by default.)

4. Do one of these tasks:

   Tip: Use Shift + Click and Ctrl + Click to select multiple contiguous and non-contiguous selections.

   - Planning and Essbase users only: In Application and Object Type, select the applications and object types you want to display in the List View. (The default is All.)
   - Financial Management users only: In Application, Object Type, and Calculation Type, select the applications, object types, and calculation types you want to display in the List View. (The default is All.)

5. Under Deployed Status and Validated Status, clear any check boxes of selections you do not want to display. (All check boxes are selected by default.)

   Tip: Click Reset to reset the dialog with default values.
6 On Advanced Options, for Object Label, select one of these options to display only objects whose names match the criteria:
   - Starts With, to display only objects whose names start with characters you specify
   - Ends With, to display only objects whose names end with characters you specify
   - Contains, to display only objects whose names contain characters you specify
   - Matches, to display only objects whose names match characters you specify

7 Enter the characters that are common to the names of the objects you want to display.

8 Select Ignore case, if you want to display objects whose names contain characters in either upper or lower case, even if the case does not match the case of the text you entered in step 7.

9 In Created By, enter the name of the user who created objects you want to display.

10 In Modified By, enter the name of the user who modified objects you want to display.

11 For Created Date, select After, Before, or Between to display only objects that were created after, before, or between dates you specify. (Between is the default.) Click the dropdown arrows to display calendars from which you can select dates.

12 For Modified Date, select After, Before, or Between to display only objects that were modified after, before, or between dates you specify. (Between is the default.) Click the dropdown arrows to display calendars from which you can select dates.

13 Click OK.

System View

The System View is the default view that is displayed when you launch Calculation Manager. It contains a list of all of the applications, calculation or plan types, and objects to which you have access. (Your access privileges are determined by the role you are assigned in Shared Services. Access privileges are assigned on an application basis.) For each object, the owner, the user who last made changes to it, and the date changes were last made to it are listed. From the System View, you can do these tasks:
   - Create, open, rename, delete, refresh, and close Calculation Manager objects, EPM Workspace pages, and other documents
   - Set preferences
   - Import and export objects
   - Show the usages of an object
   - Create a copy of an object
   - Change the owner of an object
   - Create a shortcut to a business rule
   - Print a business rule
   - Import and export business rules and other objects
   - Exit or log off of EPM Workspace
Custom View

The Custom View enables you to create folders and drag and drop objects into them to create a view that contains only the objects you want. This view enables you to organize objects in a way that is meaningful to you. From the Custom View you can do these tasks:

- Create, open, rename, remove, refresh, and close Calculation Manager objects, EPM Workspace pages, and other documents
- Set preferences
- Import and export objects
- Show the usages of an object
- Create a copy of an object
- Change the owner of an object
- Print a business rule
- Import and export business rules and other objects
- Exit or log off of EPM Workspace
- Select views
- Work with favorites
- Perform an advanced search, install other EPM Workspace products, and work with variables
- Validate and migrate objects
- Access help for Calculation Manager and other EPM Workspace products

Creating a Folder in the Custom View

In the Custom View, you can create folders that contain only the business rules, business rulesets, formulas, script components, and templates with which you want to view and work. To add objects to your folders, drag them from the Existing Objects pane and drop them into your folders.

To create a folder in the Custom View:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2 In the System View, select View, Custom View.

3 In the Custom View, right-click the Financial Management, Planning, or Essbase application type, and select New Folder.

4 In New Folder, enter a name for the folder.

5 Click OK.

Tip: You can create nested folders by right-clicking the folder within which you want to create a folder and selecting New Folder.

Renaming a Folder in the Custom View

You can rename the folders you create in the Custom View.

To rename a folder in the Custom View:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, select View, Custom View.

3 In the Custom View, expand the Financial Management, Planning, or Essbase application type.

4 Right-click the folder you want to rename, and select Rename.

5 In Rename Folder, enter a new name for the folder.

6 Click OK.

Deployment View

The Deployment View contains a list, by application type and application, of the rules and rulesets that are deployable and their deployment and validation status. From this view, you can select rules and rulesets in an application to make them deployable. Then you can deploy one or more rules and rulesets (known as a partial deployment), or you can deploy all rules and rulesets in an application (known as a full deployment). From the Deployment View, you can do these tasks:

- Create, open, rename, remove, refresh, and close Calculation Manager objects, EPM Workspace pages, and other documents
- Set preferences
- Import and export objects
- Show the usages of an object
- Create a copy of an object
- Change the owner of an object
- Print a business rule
- Exit or log off EPM Workspace
View Pane

When you create or open an object, you can display the View Pane in the left frame of the window. Depending on whether you are working in the Rule, Ruleset, Template, or Component Designer, a Rule Palette, Ruleset Palette, Template Palette, or Component Palette is displayed in the View Pane. From the Rule, Ruleset, Component, or Template Palette, you can drag new and existing objects and drop them into the rule, ruleset, template, or component flow chart.

When working with views, you can display or hide the View Pane using the View menu. In the Custom View, you drag and drop new and existing objects from the View Pane into the custom folders you create. In the System and List views, the View Pane is hidden by default. In the Deployment View, the View Pane is not available.

**Note:** The content of the View Pane varies depending on which view you are in and whether you are working with a ruleset, a rule, a template, or a component.
About Business Rules

Calculation Manager enables you to create, validate, deploy, and administer sophisticated multidimensional business rules. You can also create a business ruleset of two or more related rules (or rulesets) that you can launch simultaneously or sequentially. You typically create business rules and rulesets to:

- Allocate costs among entities
- Perform revenue modeling
- Perform expense modeling
- Prepare a balance sheet
- Calculate cash flow
- Calculate currency translation adjustments
- Calculate group and minority interest
- Calculate deferred taxes

Before you create a business rule or ruleset, you should be familiar with the database outline and the application with which you are working. Having this information will help you create your business rules more efficiently. You should also understand the following about your data:

- How the data is stored and aggregated
- At what level the data gets loaded into the database
- The order of calculations to take place
- The key assumptions that drive the calculations
You can create business rules using components like formulas, scripts, loops, data and member ranges, templates, and variables, including runtime prompt variables. (See Chapter 11, “Using Components to Design Business Rules and Templates.”) For users to launch the business rule in Planning, you, as the administrator, must give launch privileges to the rule for that location. Users do not need launch privileges to launch a business rule in Financial Management.

Following is an overview of the process you use to create a business rule:

1. Make sure the Performance Management Architect, Shared Services, and Calculation Manager servers are running.
2. Launch EPM Workspace.
3. Log on to EPM Workspace.
4. From within Performance Management Architect, access Calculation Manager.
5. Design the new business rule. You can use components (including formulas, scripts, conditions, ranges and fixed loops), functions, member selection, and variables to design the rule.
6. Save the business rule.
7. Validate the business rule.
8. Deploy the business rule alone or deploy it with all of the rules and rulesets in an application.
9. Launch the business rule.

Creating a Business Rule

You can create a business rule from the System View. You can also create a business rule from the List, Custom, and Deployment views.

To create a new business rule:

1. Enter the rule’s name.
2. Enter the Application Type (Financial Management, Planning, or Essbase).
3. Enter the Application Name. The application name must be a valid Performance Management Architect application.
4. Do one of these tasks:
   a. If you selected Financial Management, select the Calculation Type.
   b. If you selected Planning, select the Plan Type.
   c. If you selected Essbase, select the Database.

   Note: If you right-click Rules and select New to create a new business rule, the New Rule dialog is populated with the application type, the application, and the calculation or plan type you are working in within the System View.
5. Click OK.
The new rule is displayed in the Rule Designer. To design the rule, see “Designing a Business Rule” on page 243.

**Designing a Business Rule**

A business rule is a Calculation Manager object that consists of calculations. The calculations are grouped into components. A rule can contain one or more components, templates, or rules.

You create a business rule for a Financial Management, Planning, or Essbase application. (Your ability to create rules is determined by the role you are assigned in Shared Services. See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.) The rule is represented graphically in a flow chart into which you can drag and drop components to design the rule.

**Note:** Before you create a business rule, make sure that an application exists in the product (Financial Management, Planning, or Essbase) for which you want to create the business rule.

---

**To create a business rule:**

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, do one of these tasks:
   - Select File, New, Rule.
   - Expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type, plan type, or database. Right-click Rules, and select New.

3. In New Rule, enter the rule’s name, the Application Type (Financial Management, Planning, or Essbase), and the Application Name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.

   If you select Financial Management, select the Calculation Type; if you select Planning, select the Plan Type; if you select Essbase, select the Database. Click OK.

   **Note:** If you right-click Rules and select New to create a new business rule, the New Rule dialog is populated with the application type, the application, and the calculation or plan type you are working in within the System View.

4. To design the business rule, from the Rule Palette, drag new and existing objects, and drop them into the flow chart within the Rule Designer.

   **Note:** You can also create new objects like formulas and scripts independently of the rule, and add them to the rule later.
From **New Objects**, drag and drop these components to insert a *new* component into the rule’s flow chart:

- Formulas: See “Working with Formula Components” on page 316.
- Scripts: See “Working with Script Components” on page 327.
- Conditions: See “Working with Condition Components” on page 332.
- Member Ranges: See “Working with Member Range Components” on page 337.
- Data Ranges **Financial Management users only**: See “Working with Data Range Components (Financial Management Users Only)” on page 341.
- Fixed Loops: See “Working with Fixed Loop Components” on page 346.

From **Existing Objects**, drag existing rules, formulas, scripts, and templates from Financial Management, Planning, or Essbase applications and drop them into the rule’s flow chart. When you drag an existing formula or script component into the flow chart, by default, the formula or script becomes a shared object. If you do not want it to be shared, you can clear the Shared check box on the formula or script component’s **Properties** tab. See “Sharing Script and Formula Components” on page 354.

**Tip:** **Planning and Essbase users only**: If you want to work with the business rule in its non-graphical (that is, its script) format, select Edit, Script. (See “Editing a Business Rule in Script Mode” on page 252.)

5 **On Properties**, enter properties for the rule.

- **Note:** The number and contents of the tabs change as you add components to the rule and move amongst the rule’s components in the flow chart. To enter properties and other information for the rule’s components, select the component in the flow chart. See Chapter 11, “Using Components to Design Business Rules and Templates.”

- **Optional:** Edit the name by entering a new one of up to 50 characters. (The name defaults from the New Rule dialog.)
- **Optional:** Enter a description of up to 255 characters for the rule.
- **Optional:** Enter a caption for the rule. The caption displays below the rule’s icon in the flow chart.
- **Optional:** Enter comments for the rule. For example, you may want to tell users what the rule should be used for.
- **Financial Management users only:**
  - Select **Enable Logging** so, if the rule has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule’s formula statements.
**Note:** If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created, because the log setting for the ruleset overrides the settings for the rule and component.

- Select **Enable Timer** so the time taken to process the rule is recorded in the log file when the rule is launched. You can enable the timer for rules, rule sets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a ruleset whose timer is enabled and the ruleset contains three rules whose timers are enabled, the time taken to process the ruleset, and each rule in the ruleset, is recorded.

6. **Financial Management users only:** On **Parameter**, you can view the execution variables that are used in the business rule and select any variables you want to be parameters. Complete these steps:

   - **Note:** When you first open a new business rule, this tab is empty. If you add components to the business rule, and any of those components use variables, the variables are displayed on this tab.

   a. Select **Is Parameter** to use the variable as a parameter. If the variable is an execution variable with a ruleset scope (that is, it may be used in business rules or rulesets) **Is Parameter** is selected by default. If the variable is an execution variable with a rule scope (that is, it may be used only in business rules) **Is Parameter** is not selected.

   b. In **Passing Method**, select **By Reference** or **By Value**. (**By Reference** is the default.)

7. **Planning and Essbase users only:** On **Global Range**, specify what dimensions are common to all of the components in the rule by selecting values (that is, members, variables, and functions) for each dimension. The values you select for the dimensions are the values that are calculated when the rule is launched.

   a. Select values for a dimension by clicking its row in the **Select Value** column.

   b. When the **Actions** icon is displayed, click it, and select one of these:
      - Variable (See “Working with Variables” on page 385. This chapter provides detailed procedures for variables.)
      - Member (See “Working with Members” on page 366. This chapter provides detailed procedures for member selection.)
      - Function (See “Working with Functions” on page 400. This chapter provides detailed procedures for functions.)

8. **Planning and Essbase users only:** On **Variables**, select **Merge Variables** to merge all instances of the same variable used in the business rule so only the first instance of each variable is displayed when the rule is launched. If you do not select this check box, all instances of each variable are displayed.

   - **Note:** If you select Merge Variables, the first value that the user enters for the runtime prompt is used for all subsequent occurrences of that runtime prompt during validation and launch.

9. **On Script**, you can view the generated calc script for the rule.
Note: You cannot make changes on this tab. If you want to make changes to the script, select Edit, Script. See “Editing a Business Rule in Script Mode” on page 252.

10 Optional: To search for a text string on Script:

- Click the Find icon to find text within the script.
  a. Enter the text for which you want to search in the script.
  b. Select Match case if you want the text you are searching for to match the case of the text you enter in the dialog.
  c. Select Match whole word if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
  d. Click Find.

- Click the Find and Replace icon to find and replace text within the script.
  a. Enter the text you want to find in the script.
  b. Enter the text you want to replace it with.
  c. Select Match case if you want the text you are searching for to match the case of the text you enter in the dialog.
  d. Select Match whole word if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
  e. Click Replace to find and replace one instance of the text string at a time.
  f. Click Replace All to find and replace all instances of the text string simultaneously.

11 On Usages, you can view which rules and rulesets use the rule, if any. (You cannot edit any of the information on this tab.) This is the information you can view about the rules and rulesets:

- The names of the business rules and business rulesets that are using the business rule
- The calculation or plan type of the business rules and business rulesets that are using the business rule
- The application name of the business rules and business rulesets that are using the business rule
- Whether the business rules and business rulesets that are using the business rule are deployed
- Whether the business rules and business rulesets that are using the business rule are validated
- A description of the business rules and business rulesets that are using the business rule

Note: By default, a rule is not used by any rules or rulesets when you create it.

12 Repeat these steps for each component you want to add to the business rule.
As you add components to a business rule, you may want to increase or decrease the size of the component icons and the amount of detail that is displayed in the flow chart. To do this, you can use the zoom bar to zoom in and out within the flow chart. When the flow chart is displayed in small or very small sizes, the component captions do not display, but you can place your mouse pointer over any icon to read its caption. Regardless of the size of the components in the flow chart, you can select a component to view its properties on the Properties tab.

13 Select File, Save.

After you design and save the rule, you can do any of these tasks:

- Print it. (See “Printing a Business Rule” on page 260.)
- Validate it. (See Chapter 13, “Validating and Deploying Rules, Rulesets, and Formula and Script Components.”)
- Deploy it. (See Chapter 13, “Validating and Deploying Rules, Rulesets, and Formula and Script Components.”)
- Launch it from within Planning (for Planning business rules) or from within Calculation Manager or Administration Services (for Essbase business rules). (See the Oracle Hyperion Planning User’s Guide or the Oracle Essbase Administration Services Online Help.)

Note: Only rulesets can be launched in Financial Management.

### Loading Predefined Business Rules for Workforce Planning and Capital Asset Planning Plan Types (Planning Users Only)

If you are working with a Oracle Hyperion Workforce Planning, Fusion Edition or a Oracle Hyperion Capital Asset Planning, Fusion Edition plan type within a Classic Planning application, you must load predefined business rules into the application. These predefined business rules enable you to perform predefined calculations when you are working with Web forms in Planning.

Note: You can only use this procedure to load predefined business rules into Classic Planning applications that have the Workforce Planning and Capital Asset Planning plan types enabled. If you are working with a Performance Management Architect application that has the Workforce Planning and Capital Asset Planning plan types enabled, the predefined business rules are loaded automatically when the application is created.

To load predefined business rules:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. From the System View, expand the Planning application type and the Classic application into which you want to load predefined business rules.
3 Right-click the Workforce Planning or the Capital Asset Planning plan type, and select **Load Predefined Rules**.

The business rules are loaded into the plan types.

4 Click **OK** to exit the message that the predefined rules were loaded successfully.

You should see the predefined rules in the Rules folders of the application into which you loaded the rules.

---

**Opening a Business Rule**

You open a business rule from the System View that is displayed by default when you open Calculation Manager. You can also open a rule using File, Open from within the tab of another rule, ruleset, component, or template.

To open a business rule:

1 Log on to EPM Workspace, and launch Calculation Manager. See "Logging on to EPM Workspace and Accessing Calculation Manager" on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules. Do one of these tasks:
   - Right–click the rule you want to open, and select **Open**.
   - Select the rule you want to open, and select File, **Open**.

---

**Editing Business Rules**

See these topics:

- “Editing a Business Rule” on page 248
- “Editing a Business Rule in Script Mode” on page 252

---

**Editing a Business Rule**

You can edit the structure of a business rule by adding to, removing, or changing its components (including formulas, scripts, conditions, ranges, and loops). You can also edit the properties of the business rule's components and the properties of the business rule itself.

You can edit these properties of a business rule:

- The business rule name and caption
- The business rule description and comments
- For Financial Management applications, whether the business rule has a log file and timer
- For Planning and Essbase applications, whether the business rule can be launched
You can also edit the range of dimensions and members, and the variables you include in the business rule.

To edit a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules. Do one of these tasks:
   - Right-click the rule you want to edit, and select Open.
   - Select the rule you want to edit, and select File, Open.

3. To edit the rule, in the Rule Designer, add new components, and copy and delete existing components, from the rule’s flow chart.

   Tip: As you edit components in a business rule, you may want to increase or decrease the size of the component icons and the amount of detail that is displayed in the flow chart. To do this, you can use the zoom bar to zoom in and out within the flow chart. When the flow chart is displayed in small or very small sizes, the component captions do not display, but you can place your mouse pointer over any icon to read its caption. Regardless of the size of the components in the flow chart, you can select a component to view its properties on the Properties tab.

   - To delete a component from the flow chart, select the component, right-click it, and select Remove.
   - To copy and paste an existing component, select the component, right-click it, and select Copy. Paste it into the flow chart.
   - To add a new component:
     - From New Objects, drag and drop components to insert a new component into the rule’s flow chart:
       - Formulas: See “Working with Formula Components” on page 316
       - Scripts: See “Working with Script Components” on page 327
       - Conditions: See “Working with Condition Components” on page 332
       - Member Ranges: See “Working with Member Range Components” on page 337
       - Data Ranges (Financial Management users only): See “Working with Data Range Components (Financial Management Users Only)” on page 341
       - Fixed Loops: See “Working with Fixed Loop Components” on page 346
     - From Existing Objects, drag existing rules, formulas, scripts, and templates from Financial Management, Planning, or Essbase applications and drop them into the rule’s flow chart. When you drag an existing formula or script component into the flow chart, by default, the formula or script becomes a shared object. If you do not
want it to be shared, you can clear the Shared check box on the formula or script component’s Properties tab. See “Sharing Script and Formula Components” on page 354.

4 On Properties, edit properties of the rule. (The number and contents of the tabs change as you move amongst the rule’s components in the flow chart. To edit the properties of, and other information for, a component, select the component in the flow chart to display its information in the tabs. See Chapter 11, “Using Components to Design Business Rules and Templates.”)

- **Optional:** edit the name by entering a new one of up to 50 characters. (The name defaults from the New Rule dialog.)
- **Optional:** edit the description by changing or entering a new one of up to 255 characters.
- **Optional:** edit the caption for the rule. The caption displays below the rule’s icon in the flow chart.
- **Optional:** enter comments for the rule. For example, you may want to add comments that describe what the rule does in detail.
- **Financial Management users only:**
  - Select **Enable Logging** so, if the rule has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule’s formula statements.

  **Note:** If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

  - Select **Enable Timer** so the time taken to process the rule is recorded in the log file when the rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a ruleset whose timer is enabled and the ruleset contains three rules whose timers are enabled, the time taken to process the ruleset, and each rule in the ruleset, is recorded.

5 **Financial Management users only:** On Parameter, you can view the execution variables that are used in the business rule and edit the variables you want to be parameters. Complete these steps:

  **Note:** If no execution variables are used in any of the components of the business rule, no variables are displayed on this tab.

  a. Select **Is Parameter** to use the variable as a parameter. If the variable is an execution variable with a ruleset scope (that is, it may be used in business rules or rulesets) **Is Parameter** is selected by default. If the variable is an execution variable with a rule scope (that is, it may be used only in business rules) **Is Parameter** is not selected.

  b. In **Passing Method**, select **By Reference** or **By Value**. (**By Reference** is the default.)
Planning and Essbase users only: On Global Range, you can edit the values (that is, members, variables, and functions) that define the range of values to be calculated when the rule is launched.

a. Select values for a dimension by clicking its row in the Select Value column.

b. When the Actions icon is displayed, click it, and select one of these:
   - Variable (See “Working with Variables” on page 385. This section provides detailed procedures.)
   - Member (See “Working with Members” on page 366. This section provides detailed procedures.)
   - Function (See “Working with Functions” on page 400. This chapter provides detailed procedures.)

Planning and Essbase users only: On Variables, you can create variables for the rule. (See “Working with Variables” on page 385.)

On Script, you can view the rule in its non-graphical format.

Note: You cannot make changes on this tab. If you want to make changes to the script, select Edit, Script. After you edit in script mode, you cannot edit in graphical mode. See “Editing a Business Rule in Script Mode” on page 252.

Optional: To search for a text string on Script:
   - Click the Find icon to find a text string within the script.
     a. Enter the text for which you want to search within the script.
     b. Select Match case if you want the case of the text you are searching for to match the case of the text you enter in the dialog.
     c. Select Match whole word if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
     d. Click Find.
   - Click the Find and Replace icon to find and replace a text string within the script.
     a. Enter the text for which you want to search within the script.
     b. Enter the text with which you want to replace the text you find.
     c. Select Match case if you want the case of the text you are searching for to match the case of the text you enter in the dialog.
     d. Select Match whole word if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
     e. Click Replace to find and replace one instance of the text at a time.
     f. Click Replace All to find and replace all instances of the text simultaneously.

On Usages, you can view which rules and rulesets use the rule, if any. This is the information you can view about the rules and rulesets that use the rule:

Note: You cannot edit any of the information on this tab.
The names of the business rules and business rule sets that are using the business rule

The calculation or plan type of the business rules and business rule sets that are using the business rule

The application name of the business rules and business rule sets that are using the business rule

Whether the business rules and business rule sets that are using the business rule are deployed

Whether the business rules and business rule sets that are using the business rule are validated

A description of the business rules and business rule sets that are using the business rule

11 Select File, Save.

Editing a Business Rule in Script Mode

By default, you create a business rule in graphical mode using the Rule Designer to design the graphical flow of the business rule. After you create and save a business rule, you can edit it in script mode and return to editing in graphical mode.

For Financial Management business rules, after you edit a graphical business rule in script mode, you are prompted to save the changed rule as a separate script component. The original graphical rule remains unchanged in the database.

To edit a business rule in script mode:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules. Do one of these tasks:

   - Right-click the rule you want to edit, and select Open.
   - Select the rule you want to edit, and select File, Open.

3 After the rule opens, select Edit, Script.

4 Select Yes to edit in script mode.

5 In the Script Editor, do one or more of the following tasks:

   - Click Insert a function and its parameters to insert a function into the rule. (See “Working with Functions” on page 400.)

   - Click Insert member(s) selected from a dimension to insert members from a dimension into the rule. (See “Working with Members” on page 366.)

   - Click Insert a variable to insert a variable into the rule. (See “Working with Variables” on page 385.)

   - Planning users only: Click Insert smartlists to insert a smartlist.
• Click the Find icon to find a text string in the script. (See “Searching for and Replacing a Text String in a Business Rule Script” on page 254.)

• Click the Find and Replace icon to find and replace a text string in the script. (See “Searching for and Replacing a Text String in a Business Rule Script” on page 254.)

6 On Properties, edit properties of the rule.

• Optional: enter or edit the name by entering a new one of up to 50 characters. (The name defaults from the New Rule dialog.)

• Optional: enter or edit a description of up to 255 characters for the rule.

• Optional: enter or edit a caption for the rule. The caption displays below the rule's icon in the flow chart.

• Optional: enter or edit comments for the rule. For example, you may want to add a comment that describes what the business rule does in detail.

• Financial Management users only:
  o Select Enable Logging so, if the rule has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule's formula statements.

    Note: If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

  o Select Enable Timer so the time taken to process the rule is recorded in the log file when the rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a ruleset whose timer is enabled and the ruleset contains three rules whose timers are enabled, the time taken to process the ruleset, and each rule in the ruleset, is recorded.

7 Financial Management users only: On Parameters, you can view the execution variables that are used in the business rule and edit the variables you want to be parameters. Complete these steps:

    Note: If no execution variables are used in any of the components of the business rule, no variables are displayed on this tab.

a. Select Is Parameter to use the variable as a parameter. If the variable is an execution variable with a ruleset scope (that is, it may be used in business rules or rulesets) Is Parameter is selected by default. If the variable is an execution variable with a rule scope (that is, it may be used only in business rules) Is Parameter is not selected.

b. In Passing Method, select By Reference or By Value. (By Reference is the default.)

8 Planning and Essbase users only: On Global Range, you can edit the values (that is, members, variables, and functions) that define the range of values to be calculated when the rule is launched.

a. Select values for a dimension by clicking its row in the Select Value column.
b. When the **Actions** icon is displayed, click it, and select one of these:

- Variable (See “Working with Variables” on page 385. This section provides detailed procedures.)
- Member (See “Working with Members” on page 366. This section provides detailed procedures.)
- Function (See “Working with Functions” on page 400. This chapter provides detailed procedures.)

9 **Planning and Essbase users only:** On Variables, you can create variables for the rule. (See “Working with Variables” on page 385.)

10 On Usages, you can view which rules and rulesets use the rule, if any. This is the information you can view about the rules and rulesets that use the rule:

   **Note:** You cannot edit any of the information on this tab.

   - The names of the business rules, templates, and business rulesets that are using the business rule
   - The calculation or plan type of the business rules, templates, and business rulesets that are using the business rule
   - The application name of the business rules, templates, and business rulesets that are using the business rule
   - Whether the business rules, templates, and business rulesets that are using the business rule are deployed
   - Whether the business rules, templates, and business rulesets that are using the business rule are validated
   - A description of the business rules, templates, and business rulesets that are using the business rule

11 Select **File, Save.**

**Searching for and Replacing a Text String in a Business Rule Script**

You can use Find or Find and Replace to search for and replace text strings within a business rule that you are editing in Script mode.

➢ To search for and replace a text string in a script:

1 **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and **Rules.**

3 **Do one of these tasks:**
   - Right–click the rule that contains the script you want to search, and select **Open.**
Select the rule that contains the script you want to search, and select **File, Open**.

4. Select the **Script** tab.

5. In the Script Editor, do one or more of these tasks:
   - Click the **Find** icon to find a text string within the script.
     a. Enter the text string for which you want to search.
     b. Select **Match case** if you want the case of the text you are searching for to match the case of the text you enter in the dialog.
     c. Select **Match whole word** if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
     d. Click **Find**.
   - Click the **Find and Replace** icon to find and replace a text string within the script.
     a. Enter the text string for which you want to search.
     b. Enter the text with which you want to replace the text string you find.
     c. Select **Match case** if you want the case of the text you are searching for to match the case of the text you enter in the dialog.
     d. Select **Match whole word** if you want the text you are searching for to match the whole word (versus a part of the word) you enter in the dialog.
     e. Click **Replace** to find and replace one instance of the text string at a time.
     f. Click **Replace All** to find and replace all instances of the text string simultaneously.

### Copying a Business Rule to Another Application

You can copy a business rule to another application and calculation or plan type from the System View. When you copy a business rule to another application, you create a new business rule with another name.

**Note:** You cannot copy a business rule to the same application. You must use Save As to create a copy of the business rule with a new name, so two business rules with the same name do not exist in the same application.

To copy and paste a business rule to another application:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and **Rules**.
3. Right-click the rule you want to copy, and select **Copy To**.
4. In **Save As**, enter a new name for the business rule or accept the default name, and select an application and calculation or plan type.
Note: You cannot copy to more than one application and calculation or plan type.

**Copying and Pasting the Children of a Business Rule Component**

When you are working with a business rule that has components, you may want to copy a component’s children (that is, the components that are grouped underneath a component in a flow chart). You can copy and paste the children of member range, fixed loop, and condition components. (If you are working in a Financial Management application, you can also copy and paste the children of data range components.) You can copy the children of components and paste them into the same business rule or into a different business rule in a different application as long as it belongs to the same application type (Financial Management, Planning, or Essbase). For Financial Management business rules and components, when you copy children of components, you must paste them into only business rules of the same calculation type or of the Generic calculation type.

To copy and paste the children of a business rule component:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules. Do one of these tasks:
   - Right-click the rule that contains the component whose children you want to copy and paste, and select **Open**.
   - Select the rule that contains the component whose children you want to copy and paste, and select **File, Open**.

3. In the **Rule Designer** flow chart, select the member range, data range (Financial Management users only) fixed loop, or condition component whose children you want to copy and paste.

4. **Select Edit, Copy Group.**

5. **Do one of these tasks:**
   - If you want to paste the component’s children into the *same* business rule, select the component to the left of the location you want the component’s children to display in the flow chart. (The component’s children display to the right of the component you select.)
   - If you want to paste the component’s children into a *different* business rule, open the business rule into which you want to paste the component’s children, and select the component to the left of the location you want the component’s children to display in the flow chart.

6. **Select Edit, Paste.**

7. **Select File, Save.**

Note: When you copy and paste the children of a component, any shared components are also copied.
Copying and Pasting the Reference to a Business Rule Component

When you copy and paste a reference to a business rule component, you copy and paste a shortcut to the component; you do not copy and paste the component itself. Only one copy of the component exists in the original business rule from which you copied the reference. The reference functions as a pointer to the business rule that contains the component.

You can copy and paste a reference to a formula or script component within the same business rule or within a different business rule if the business rule belongs to the same application type (Financial Management, Planning, or Essbase). For Financial Management business rules and components, when you copy the reference to a component, you must paste it into business rules of the same calculation type or of the Generic calculation type.

To copy and paste a reference to a business rule component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules. Do one of these tasks:
   - Right-click the rule that contains the component whose reference you want to copy and paste, and select Open.
   - Select the rule that contains the component whose reference you want to copy and paste, and select File, Open.

3. In the Rule Designer flow chart, select the formula or script component whose reference you want to copy and paste.

4. Select Edit, Copy Reference.

5. Do one of these tasks:
   - If you want to paste the component’s reference into the same business rule, select the component to the left of the location you want the component’s reference to display in the flow chart. (The component’s reference displays to the right of the component you select.)
   - If you want to paste the component’s reference into a different business rule, open the business rule into which you want to paste the component’s reference, and select the component to the left of the location you want the component’s reference to display in the flow chart.

   *Note:* You can copy and paste the reference into a business rule that belongs to the same application or a different application, as long as the application belongs to the same application type (Financial Management, Planning, or Essbase).


7. Select File, Save.
Saving a Business Rule

You must save a business rule after you create or edit it. When you save the business rule, it is saved to the application and application type for which you created it. After you save it, you can deploy, validate, and launch it. You can deploy and validate it from Calculation Manager; you can launch it from Planning (for Planning rules) and Calculation Manager or Administration Services (for Essbase rules).

**Note:** You can launch only business rulesets from Financial Management; you cannot launch business rules.

To save a business rule after you create or edit it, select **File, Save**.

**Note:** To see the business rule in the System View after you save it, you may need to refresh the application list. To do this, right-click the application type, the application, the calculation type (for Financial Management), the plan type (for Planning) or the database (for Essbase), and select Refresh.

Saving a Business Rule with a Different Name

You can save a business rule with a different name using Save As. You can also copy a rule from one ruleset to another within the same ruleset type using Save As. Save As creates a copy of the original business rule with a different name to distinguish it from the original.

**Note:** You cannot change the application type, or the calculation or plan type, of a rule you save with a different name. You can change the application to which a rule belongs when you save the rule with a different name.

To save a business rule with a different name:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and **Rules**.

3. Right-click the rule you want to save with a different name, and select **Open**.

4. In the **Rule Designer**, select **File, Save As**.

5. In **Save As**, enter the rule's new name and the **Application Name**. The application name must be a valid Performance Management Architect application. If the rule is a Financial Management rule, select the **Calculation Type**; if the rule is a Planning rule, select the **Plan Type**; if the rule is an Essbase rule, select the **Database**. Click **OK**.

**Note:** You cannot change the application type, or the calculation or plan type, of a rule you save with a different name. You can change the application to which a rule belongs when you save the rule with a different name.

The new rule is added to the application list in the System View.
Creating a Shortcut to a Business Rule

A shortcut lets you share a business rule across applications without having to create a copy of the rule for each application. When you create a shortcut to a rule, the shortcut provides a cross reference to the rule.

You can also use a shortcut to deploy a business rule to other applications than, or in addition to, the one for which the rule was created. By default, when you deploy a business rule, it is deployed to the application for which it was created.

**Note:** You can create shortcuts only for business rules.

To create a shortcut for a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules.
3. Right-click the rule you want to create a shortcut to, and select Create Shortcut.
4. In Create Shortcut, expand the applications for which you want to create a shortcut to the rule.
5. Select the option buttons next to the calculation or plan types for which you want to create a shortcut. You can select multiple calculation or plan types in multiple applications belonging to the same application type (Financial Management, Planning, or Essbase).

**Note:** Only applications other than the one in which you created the rule are displayed in the dialog. Because a business rule’s name must be unique in an application, you can only create a shortcut for a rule in another application. Further, any applications containing a rule with the same name as the rule you want to create a shortcut for do not display in the dialog.

6. Click OK.

A shortcut to the rule is copied to the calculation or plan types you selected. The shortcut appears as an upward arrow in the lower left of the rule icon.

Deleting a Business Rule

You delete a business rule from the System View that is displayed by default when you open Calculation Manager. You can delete a business rule only if it is not used by other rules or rulesets. If the rule is being used, you must remove it from the rules and rulesets using it, or make copies of it for the rules and rulesets using it, before you delete it. To see if a rule is used by other rules and rulesets, you can show the usages of the rule. (See “Showing the Usages of a Business Rule or Business Ruleset” on page 273.)
To delete a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules.

3. Make sure the rule you want to delete is not being used by another ruleset or rule. (See “Showing the Usages of a Business Rule or Business Ruleset” on page 273.)

4. Right-click the rule you want to delete, and select Delete.

5. Click OK to confirm deletion of the rule.

Printing a Business Rule

You can print a business rule’s properties, its flow chart, and the details of its components. For example, if you print a business rule that contains a formula component for allocation expenses, the print out shows the formula syntax, the functions and variables that comprise the formula, a summary of the steps in the rule’s flow chart (not in graphical form), and the rule’s properties.

Note: You cannot print business rulesets, templates, or components. You can only print templates and components if they are used in a business rule that you print.

To print a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, the plan type, or the database, and Rules.

3. Select the rule you want to print.

4. Select File, Print.

Note: You can also select File, Print from within the Rule Designer to print a rule.

5. In Print Preview, do these tasks:
   a. Select the Print options:
      - Select the page size.
      - Select the print orientation: portrait or landscape.
   b. Select the Rule Information options:
      - Select General Rule Information if you want to print the rule’s description and other details from the Properties tab, such as the rule’s name, the application to which it belongs, its owner, the date it was created, and the date it was last modified.
      - Select Flow Chart and Expanded or Collapsed, if you want to print the flow chart, and you want to print it with the component details expanded or collapsed.
c. Select the Page Order options:

- **Down, then across**: the components in the flow chart print down (vertically, as rows do) on the number of pages you specified in the previous step, then the components print across (horizontally, as columns do) on the number of pages you specified in the previous step.

- **Across, then down**: the components in the flow chart print across (horizontally, as columns do) on the number of pages you specified in the previous step, then the components print down (vertically, as rows do) on the number of pages you specified in the previous step.

d. Select the remaining Rule Information options:

- Select **Summary**, if you want to print a summary of the components in the flow chart.

- Select **Variable Section** if you want to print information on any variables used in the rule.

- Select **Detail Section** if you want to print detailed information about the components in the rule.

- Select **Page break before sections** if you want to create a page break between summary, variable, and detail sections. (This option is selected by default.)

- Select **Nested Rules** if you want to print rules contained in other rules.

6 **Select Generate PDF.**

A PDF file of the business rule is opened in Adobe Acrobat.

7 **Click the Print icon in Adobe Acrobat.**

8 **In the Print dialog, select the print options specific to the printer you are using, and click Print.**

### About Business Rulesets

You create a business ruleset by combining business rules (or business rulesets) that can be launched simultaneously or sequentially.

You create a business ruleset for a Financial Management, Planning, or Essbase application. (Your ability to create rulesets is determined by the role you are assigned in Shared Services. See the *Oracle Hyperion Enterprise Performance Management System Security Administration Guide.*

You add rules and rulesets to the ruleset by dragging and dropping them into it. After you create and save the ruleset, you can validate and deploy it. Then you can launch it in Financial Management (for Financial Management rulesets), Planning (for Planning rulesets) or Calculation Manager or Administration Services (for Essbase rulesets).
Creating a Business Ruleset

You can create a business ruleset from the System View. You can also create a business rule from the List, Custom, and Deployment views and from within the Ruleset, Template, and Component designers.

To create a business ruleset:

1. Enter the ruleset's name.
2. Enter the **Application Type** (Financial Management, Planning, or Essbase).
3. Enter the **Application Name**. The application name must be a valid Performance Management Architect application.
4. Do one of these tasks:
   a. If you selected Financial Management, select the **Calculation Type**.
   b. If you selected Planning, select the **Plan Type**.
   c. If you selected Essbase, select the **Database**.

   **Note:** From the System View, if you right-click Rulesets and select New to create a new business ruleset, the New Ruleset dialog is populated with the application type, the application, and the calculation type, plan type, or database in which you are working.

5. Click **OK**.

The new ruleset is displayed in the Ruleset Designer. See “Designing a Business Ruleset” on page 262 to design the business ruleset.

Designing a Business Ruleset

After you create a ruleset in the New Ruleset dialog, the ruleset is displayed in the Ruleset Designer.

To design a business ruleset:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, and the application in which you want to create a new ruleset.
3. Do one of these tasks:
   - **Financial Management users only:** Expand the calculation type, right-click **Rulesets**, and select **New**.
   - **Planning and Essbase users only:** Right-click **Rulesets**, and select **New**.
**Note:** For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) or databases (for Essbase).

4 **In New Ruleset, do these tasks:**
   a. Enter the ruleset’s name.
   b. Select the **Application Type** (Financial Management, Planning, or Essbase).
   c. Select the **Application Name.** The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.
   d. If you selected Financial Management as the application type, select the **Calculation Type;** if you selected Planning as the application type, select the **Plan Type;** if you selected Essbase as the application type, select the **Database.**
   e. Click **OK.**

5 **In the Ruleset Designer, to create the ruleset, from Ruleset Palette, drag existing rules and rulesets and drop them into the flow chart.**

   **Tip:** You can use the up and down arrow buttons below the Navigate menu to reorder the rules in the ruleset. To move a rule up or down, select the rule and click the up or down arrow button until the rule is in the correct location. Rules in Financial Management applications are launched sequentially within a ruleset, so the order of the rules is important.

**Note:** Planning and Essbase rulesets can contain rules and rulesets that are created in, and deployed to, different applications. Financial Management rules and rulesets must belong to the same calculation type or belong to the Generic calculation type.

6 **On Properties, enter properties for the ruleset.** (In the Ruleset Designer, if you select a rule or ruleset within the ruleset you are creating, its properties are displayed on Properties instead of the new ruleset’s properties.)
   - **Optional:** Edit the name by entering a new one of up to 50 characters. (The name defaults from the New Ruleset dialog.)
   - **Optional:** Enter a description of up to 255 characters for the ruleset.
   - **Optional:** Select **Enable Parallel Execution** if you want the rules and rulesets in the ruleset to launch simultaneously. By default the rules and rulesets belonging to a ruleset launch sequentially: each rule or ruleset in the ruleset must run without errors before the next rule or ruleset is launched.

   If the ruleset contains nested rulesets, and the nested rulesets have a different Enable Parallel Execution setting than the parent ruleset, the setting of the nested ruleset applies. For example, if you have ruleset1 (that is flagged for **parallel** processing) and it contains rule1, rule2, and ruleset2 (that is flagged for **sequential** processing), the rules and rulesets...
in ruleset2 are processed sequentially, even though ruleset1 is flagged for parallel processing.

- **Optional:** Enter comments for the ruleset. For example, you may want to enter a comment that describes what the business ruleset does.

- **Financial Management users only:**
  - Select **Enable Logging** so, if the rules in the ruleset have log text, the log text is included in the log file when the ruleset is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule’s formula statements.

    **Note:** If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

  - Select **Enable Timer** so the time taken to process the ruleset is recorded in the log file when the ruleset is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a ruleset whose timer is enabled and the ruleset contains three rules whose timers are enabled, the time taken to process the ruleset, and each rule in the ruleset, is recorded.

  - Select **Enable Launch** so the ruleset can be launched in Financial Management.

    **Note:** You cannot launch business rules in Financial Management.

7. **On Usages, you can see which rulesets are using this ruleset, if any. (You cannot change any of the information on this tab.) This is the information you can view about the rulesets that use this ruleset:**

   - The names of the business rulesets that are using the business ruleset
   - The calculation or plan type of the business rulesets that are using the business ruleset
   - The application name of the business rulesets that are using the business ruleset
   - Whether the business rulesets that are using the business ruleset are deployed
   - Whether the business rulesets that are using the business ruleset are validated
   - A description of the business rulesets that are using the business ruleset

    **Note:** By default, a ruleset is used by no other rulesets when you create it.

8. **Planning and Essbase users only: On Variables, select **Merge Variables** to merge all instances of the same variable used in the rules within this ruleset so only the first instance of each variable is displayed when the rule is launched. If you do not select this check box, all instances of each variable are displayed.**

    **Note:** If you select Merge Variables, the first value that the user enters for the runtime prompt is used for all subsequent occurrences of that runtime prompt during validation and launch.

9. Select **File, Save.**
Opening a Business Ruleset

You open a business ruleset from within the System View that is displayed by default when you open Calculation Manager. You can also open a ruleset from within the Rule Designer, the Component Designer, and the Template Designer by selecting File, then Open.

To open a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.
3. Do one of these tasks:
   - Financial Management users only: Expand the calculation type and Rulesets, right-click the ruleset you want to open, and select Open.
   - Planning and Essbase users only: Expand Rulesets, right-click the ruleset you want to open, and select Open.

   Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

Opening a Business Rule within a Business Ruleset

You can open a business rule from within a business ruleset from the System View or from the Ruleset Designer.

To open a business rule within a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.
3. Do one of these tasks:
   - Financial Management users only: Expand the calculation type, Rulesets, and the ruleset that contains the rule you want to open.
   - Planning and Essbase users only: Expand Rulesets and the ruleset that contains the rule you want to open.

   Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).
Right-click the rule you want to open, and select Open.

Tip: You can also open a rule that belongs to a business ruleset from within the Ruleset Designer. To do this, in the Ruleset Designer, right-click the rule and select Open.

Adding a Business Rule to a Business Ruleset

You can add a business rule to a business ruleset that belongs to the same application type (Financial Management, Planning, or Essbase). The rules in the ruleset launch sequentially in Financial Management, so the order of the rules in the ruleset is important. In Planning and Essbase, the rules in the ruleset can be launched sequentially or simultaneously.

To add a business rule to a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.
3. Do one of these tasks:
   - Financial Management users only: Expand the calculation type and Rulesets, right-click the ruleset you want to open, and select Open.
   - Planning and Essbase users only: Expand Rulesets, right-click the ruleset you want to open, and select Open.

   Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).
4. In the Ruleset Designer, in Existing Objects, expand the application and the plan type or calculation type that contains the rule you want to add.
5. To add the rule, drag and drop it into the Ruleset Designer.
6. Repeat step 5 for each rule you want to add to the ruleset.
7. Select File, Save.

Removing a Business Rule from a Business Ruleset

When you remove a business rule from a business ruleset, the rule is not deleted. The rule exists independently of the ruleset in the database.

To remove a business rule from a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

Do one of these tasks:

- Financial Management users only: Expand the calculation type and Rulesets, right-click the ruleset you want to open, and select Open.
- Planning and Essbase users only: Expand Rulesets, right-click the ruleset you want to open, and select Open.

Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

In Ruleset Designer, right-click the rule you want to remove, and select Remove.

Select File, Save.

Editing Business Rulesets

See these topics:

- “Editing a Business Ruleset” on page 267
- “Copying a Business Ruleset to Another Application” on page 269

Editing a Business Ruleset

You can edit the following properties of a business ruleset:

- The business rule components
- The business rule name
- The business rule description
- The business rule comments
- For Financial Management applications, whether the business rule has a log file and timer
- For Planning and Essbase applications, whether the variables should be merged

To edit a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:

- Financial Management users only: Expand the calculation type and Rulesets, right-click the ruleset you want to edit, and select Open.
- Planning and Essbase users only: Expand **Rulesets**, right-click the ruleset you want to edit, and select **Open**.

  **Note:** For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

4. To edit the ruleset, in the **Ruleset Designer**, add, copy, delete and change the order of new rules and rulesets:
   - To delete a rule or ruleset from the ruleset, select the rule or ruleset, right-click it, and select **Remove**.
   - To add a rule or ruleset to the ruleset, from **Existing Objects**, drag existing rules and rulesets from Financial Management, Planning, or Essbase applications and drop them into the **Ruleset Designer**.

   **Note:** The rules and rulesets you add to the ruleset must belong to the same application type as the ruleset you are editing. Financial Management rules and rulesets must belong to the same calculation type or belong to the Generic calculation type.

   - To open a rule or ruleset in the ruleset, right-click the rule or ruleset, and select **Open**.
   - To reorder the rules and rulesets within the ruleset, use the up and down arrow buttons below the Navigate menu. To move a rule or ruleset up or down, select it and click the up or down arrow button until it is in the correct location.

5. On **Properties**, edit properties of the ruleset. (In the **Ruleset Designer**, if you select a rule that you added to this ruleset, the properties of the rule are displayed on the Properties tab.)
   - **Optional:** Edit the name by entering a new one of up to 50 characters. (The name defaults from the New Ruleset dialog.)
   - **Optional:** Edit the description by entering a new one of up to 255 characters.
   - Edit the **Enable Parallel Execution** selection. If you want the rules and rulesets in the ruleset to launch simultaneously, select this option; if you want them to run sequentially, clear this option. By default, the rules and rulesets in a ruleset run sequentially: each rule or ruleset in the ruleset must run without errors before the next rule or ruleset is launched.

   If the ruleset contains nested rulesets, and the nested rulesets have a different Enable Parallel Execution setting than the parent ruleset, the setting of the nested ruleset applies. For example, if you have ruleset1 (that is flagged for parallel processing) and it contains rule1, rule2, and ruleset2 (that is flagged for sequential processing), the rules and rulesets in ruleset2 are processed sequentially, even though ruleset1 is flagged for parallel processing.

   - Edit the comments.

   - **Financial Management users only:**
Select **Enable Logging** so, if the rules in the ruleset have log text, the log text is included in the log file when the ruleset is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule’s formula statements.

**Note:** If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

Select **Enable Timer** so the time taken to process the ruleset is recorded in the log file when the ruleset is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a ruleset whose timer is enabled and the ruleset contains three rules whose timers are enabled, the time taken to process the ruleset, and each rule in the ruleset, is recorded.

Select **Enable Launch** so the ruleset can be launched in Financial Management.

**Note:** You cannot launch business rules in Financial Management.

6 On **Usages**, you can see which rulesets are using this ruleset, if any. (You cannot edit any of the information on this tab.) This is the information you can view about the rulesets that use this ruleset:

- The names of the business rulesets that are using the business ruleset
- The calculation or plan type of the business rulesets that are using the business ruleset
- The application name of the business rulesets that are using the business ruleset
- Whether the business rulesets that are using the business ruleset are deployed
- Whether the business rulesets that are using the business ruleset are validated
- A description of the business rulesets that are using the business ruleset

7 **Planning and Essbase users only:** On **Variables**, select **Merge Variables** to merge all instances of the same global variable used in the rules within this ruleset so only the first instance of each variable is displayed when the rule is launched. If you do not select this check box, all instances of each variable are displayed.

**Note:** If you select Merge Variables, the first value that the user enters for the runtime prompt is used for all subsequent occurrences of that runtime prompt during validation and launch.

**Note:** Only global variables can be merged.

8 Select **File, Save**.

**Copying a Business Ruleset to Another Application**

From the System View, you can copy a business ruleset to another application of the same application type (Financial Management, Planning, or Essbase) and calculation type (for
To copy a business ruleset to another application:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:
   - Financial Management users only: Expand the calculation type and Rulesets.
   - Planning and Essbase users only: Expand Rulesets.

   Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

4. Right-click the business ruleset you want to copy, and select Copy To.

   Tip: You can also copy a business ruleset when you are working with it in the Ruleset Designer, and paste it into another business ruleset or business rule. Select the ruleset name, select Edit, Copy, open the business rule or ruleset into which you want to copy it, and select Edit, Paste.

5. In Save As, enter a new name for the business ruleset or accept the default name, and select an application and calculation or plan type.

   Note: You cannot copy the business ruleset to more than one application and calculation or plan type.

   The new business ruleset is added to the application and calculation or plan type you selected. To see it in the System View, you may need to refresh the application list. To refresh the application list, click the Refresh icon on the toolbar. You can also refresh Rulesets or any level above it in the application list to see the new ruleset. See “Refreshing Business Rules or Business Rulesets” on page 272.

**Saving a Business Ruleset**

You must save a business ruleset after you create or edit it. When you save the business ruleset, it is saved to the application and application type for which you created it. After you save it, you can deploy, validate, and launch it. You can deploy and validate it from Calculation Manager; you can launch it from Financial Management or Planning (for Financial Management or Planning rulesets) to which it belongs or from Calculation Manager or Administration Services (for Essbase rulesets).
To save a business ruleset after you create or edit it, select **File, Save**, or click the **Save** icon.

**Note:** To see the business ruleset within the System View after you save it, you may need to refresh the application list. To do this, right-click the application type, the application, the calculation type (Financial Management), the plan type (Planning), or the database (for Essbase), and select Refresh. You can also click the Refresh icon on the toolbar to refresh the entire application list in the System View.

### Saving a Business Ruleset with a Different Name

You can save a business ruleset with a different name using Save As. Saving it with a different name creates a copy of the ruleset.

**To save a business ruleset with a different name:**

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.
3. Do one of these tasks:
   - **Financial Management users only:** Expand the calculation type and **Rulesets**.
   - **Planning and Essbase users only:** Expand **Rulesets**.

   **Note:** For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

4. Right-click the ruleset you want to save with a different name, and select **Open**.
5. In the **Ruleset Designer**, select **File, Save As**.
6. In **Save As**, enter the ruleset's new name and the **Application Name**. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application. Click **OK**.

   **Note:** You cannot change the application type of a ruleset you save with a different name. The new ruleset must have the same application type (that is, Financial Management, Planning, or Essbase) as the ruleset from which it is created. Also, if the ruleset is a Financial Management ruleset, you cannot change the calculation type. The calculation type of the new ruleset must be the same as the original ruleset.

   The new ruleset is added to the application list in the System View.
Deleting a Business Ruleset

You delete a business ruleset from the System View that is displayed by default when you open Calculation Manager. You can delete a business ruleset only if it is not being used by other business rulesets. To see if it is being used by other rulesets, you can show its usages. (See “Showing the Usages of a Business Rule or Business Ruleset” on page 273.) If it is being used, you must remove it from the business rulesets that are using it, or make copies of it for the business rulesets that are using it, before you delete it.

To delete a business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:
   - Financial Management users only: Expand the calculation type and Rulesets.
   - Planning and Essbase users only: Expand Rulesets.

   Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

4. To make sure the ruleset is not being used by another ruleset, right-click it, and select Show Usages. (See “Showing the Usages of a Business Rule or Business Ruleset” on page 273.)

5. Right-click the ruleset you want to delete, and select Delete.

6. Click OK to confirm deletion of the ruleset.

Refreshing Business Rules or Business Rulesets

In the System View, you can refresh any level of the application list. You can refresh an application type (Financial Management, Planning, or Essbase), an application, a calculation type, a plan type, or a database, multiple rulesets or rules, or one ruleset or rule.

By default, when you refresh an application, application type, or calculation type, plan type, or database, all of the rules, rulesets, formulas, scripts, and templates belonging to it are refreshed. However, refreshing the rulesets or rules within an application does not refresh higher levels in the application list or rulesets or rules that belong to other applications. For example, if you refresh a rule within a Planning application and plan type, any other rules within that application and plan type are refreshed, but no rules within other plan types or other Planning applications are refreshed.

Note: You can also click the Refresh icon on the toolbar to refresh the entire application list in the System View.
To refresh business rules or rulesets:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:
   - Financial Management users only: To refresh rulesets, expand the calculation type, right-click Rulesets, and select Refresh.
   - Planning and Essbase users only: To refresh rulesets, right-click Rulesets, and select Refresh.

   **Note:** For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

   - To refresh rules, expand the calculation type, plan type, or database, right-click Rules, and select Refresh.

   **Tip:** You can also right-click the application type, the application, or the calculation type, plan type, or database that contains the business rulesets you want to refresh, and select Refresh.

### Showing the Usages of a Business Rule or Business Ruleset

You can display the business rules, templates, and business rulesets that are using a business rule or business ruleset. Viewing the usages of a rule or ruleset is useful when you want to delete the rule or ruleset and need to know what objects are using it.

To show the usages of a business rule or business ruleset:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:
   - Financial Management users only: To show the usages of a ruleset, expand the calculation type and Rulesets, right-click the ruleset whose usages you want to see, and select Show Usages.
   - Planning and Essbase users only: To show the usages of a ruleset, expand Rulesets, right-click the ruleset whose usages you want to see, and select Show Usages.
For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

- To show the usages of a rule, expand the calculation type, plan type, or database, and Rules, right-click the rule whose usages you want to see, and select Show Usages.

4  You can view this information about the business rule or business ruleset:
- The names of the business rules, templates, and business rulesets that are using the business rule or business ruleset
- The calculation type, plan type, or database of the business rules, templates, and business rulesets that are using the business rule or business ruleset
- The application name of the business rules, templates, and business rulesets that are using the business rule or business ruleset
- Whether the business rules, templates, and business rulesets that are using the business rule or business ruleset are deployed
- Whether the business rules, templates, and business rulesets that are using the business rule or business ruleset are validated
- A description of the business rules, templates, and business rulesets that are using the business rule or business ruleset

- Note: You can also view a rule or ruleset’s usages from within the Rule or Ruleset Designer on the Usages tab.

5  After you review the information, click OK.

Changing the Owner of an Object

You can change the owner of an object (that is, a rule, ruleset, template, or formula or script component) in the System View, if the application to which it belongs is deployed. By default, an object’s owner is the user that creates it, unless the user changes the ownership. Users can edit only objects they own, with the exception of administrators who can edit any objects.

➢ To change the owner of an object:

1  Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2  In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3  Do one of these tasks:
   - Financial Management users only: To change the ownership of a ruleset, expand the calculation type and Rulesets.
Planning and Essbase users only: To change the ownership of a ruleset, expand Rulesets.

Note: For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types (for Planning) and databases (for Essbase).

To change the ownership of a rule, formula, script, or template, expand the calculation type, plan type, or database, and Rules, Formulas, Scripts, or Templates, depending on the object for which you want to change ownership.

4 Right-click the object, and select Change Ownership.

5 In Change Owner, select the owner to whom you want to transfer ownership of the object.

6 Click OK.

The user you assigned ownership to can edit the object.
About Templates

A template performs a calculation or calculations in a business rule. Calculation Manager includes system templates and custom defined templates. A system template enables you to perform such calculations as allocating data, aggregating data, copying data, and clearing data, among others. A custom defined template is created by you, the administrator, according to the needs of your business.

You can include system and custom defined templates in a business rule by dragging them from the Existing Objects palette and dropping them into a rule’s flow chart. As a component of a business rule, a template contains a series of steps into which you can enter parameters. These parameters, combined with the template logic, generate a calculation within the business rule.

You can create a custom defined template from the Rule Designer by selecting components within a rule’s flow chart and saving them as a template. You can also create a custom defined template using the Template Designer by selecting File, New Template in the System View.

Working with System Templates

See these topics:

- “About Planning and Essbase System Templates” on page 279
- “About Financial Management System Templates” on page 278
- “Using a System Template in a Business Rule (Planning and Essbase Users Only)” on page 280
- “Saving a System Template as a Custom Defined Template” on page 295
About Financial Management System Templates

Calculation Manager includes these system templates for Financial Management.

Note: To use Financial Management system templates, you must load predefined system variables into the application in which the template is being used. See “Loading Predefined System Variables into Financial Management Applications (Financial Management Users Only)” on page 400.

- Financial Round template: rounds data using financial rounding instead of statistical rounding. The Financial Round function rounds data to the specified number of decimals using the 4 down/5 up method.
- Get Days In Month template: generates the number of days in a month based on a specified year and month number. The month can be entered as a number outside of the usual range of 1 to 12, and the function offsets. For example, if you enter the year 2008 and the period number 0, the number of days for December 2007 is returned. If you enter the year 2008 and the period number 14, the number of days for February 2009 is returned. This function also accounts for Leap years.
- Is In List template: tests whether a specified dimension member is a member of a specified member list.
- Allocation by Entity template: allocates the source account from the group parent entity to the destination account for each entity in the list based on the allocation weight specified.
- Average Balance Sheet template: calculates the average balance sheet ratios for MTD, QTD, HYTD and YTD frequencies. Data can be entered as MTD< QTD, HYTD< YTD or the cumulative daily balance.
- Opening Balance template: calculates the opening balance of an account based on a specified retrieval method. The retrieval of the opening balance can be from the same value currency or from Entity Currency Total.
- Complex Consolidation template: pre-built consolidation rule that consolidates, and eliminates for each entity in the consolidation group, on the basis of the consolidation method (Holding, Global, Proportional, Equity) assigned to each entity. It handles calculations for Capital, Investment, Net Income, and standard elimination. Audit transactions are generated based on the audit flag you set. This consolidation rule provides most of the calculations for typical Statutory requirements.
About Planning and Essbase System Templates

All system templates are available as wizards in Calculation Manager. Working with system templates in a wizard makes the templates easier to use in a business rule, and reduces potential calculation script syntax errors.

The design time prompts available in system templates are filtered based on the choices you make when following the wizard. For example, the Aggregation system template displays a step for selecting dense dimensions to aggregate, but if there are no dense dimensions available for aggregation, there are no dense dimensions to select from the dropdown list in the step. This can happen when all of the dense dimensions are used in the upper FIX statement.

The template can detect what dimensions are used in the member range of the business rule into which you drop it. For example, if you drop an aggregation template into the member range of a rule, and if this member range includes all dense dimensions, the step for dense dimension aggregation in the template is not displayed. This prevents calculation script errors, since Essbase scripts do not allow aggregation of a dimension within a FIX statement when this dimension is already used. For example, if, in a business rule, the member range is made of children (YearTotal), the aggregation on period is not allowed.

If you include a system template in an upper member range, the system template can detect this. If a system template is dropped into a member range component (that is, a Fix statement), which implies that the dimensions used in that member range should not be used in a formula, then these dimensions are not displayed in the wizard. This reduces the potential for calculation script syntax errors when you are using system templates. For example, if the Allocate system template is used in a member range component that is made of entities, then the Entity dimension is not displayed as a dimension in which an allocation can be performed.

Calculation Manager includes these system templates for Planning and Essbase:

- Clear Data template: enables you to delete data from a location in the database. You may want to clear data before you allocate it. See “Using the Clear Data Template in a Business Rule (Planning and Essbase Users Only)” on page 282.

- Copy Data template: enables you to copy data from one location in the database to another. See “Using the Copy Data Template in a Business Rule (Planning and Essbase Users Only)” on page 283.

- Amount–Unit–Rate template: enables you to enter any two of three variables and calculate the third variable. For example, if you enter the rate and units of an item sold, Calculation Manager calculates the amount of the item. See “Using the Amount–Unit–Rate Template in a Business Rule (Planning and Essbase Users Only)” on page 284.

- Allocate Level to Level template: enables you to distribute data that is aggregated from members at multiple levels in the database outline. See “Using the Allocate Level to Level Template in a Business Rule (Planning and Essbase Users Only)” on page 285.

- Allocate Simple template: enables you to distribute data from members at one level in the database outline. See “Using the Allocate Simple Template in a Business Rule (Planning and Essbase Users Only)” on page 287.

- Aggregation template: enables you to generate an optimized script for aggregating dimensions according to their density. Dimensions can be aggregated fully or partially and
aggregated to descendants, children, or ancestors. See “Using the Aggregation Template in a Business Rule (Planning and Essbase Users Only)” on page 290.

- Export Data template: enables you to export data from a location in the database to a file or to a table in a relational repository. It also enables you to import data that you exported previously using the binary file option. See “Using the Export Data Template in a Business Rule (Planning and Essbase Users Only)” on page 291.

- SET Commands template: enables you to enter script commands that optimize the performance of calculation scripts. You can include data volume, data handling, memory usage, and threading and logging script commands. See “Using the SET Commands Template in a Business Rule (Planning and Essbase Users Only)” on page 292.

Using a System Template in a Business Rule (Planning and Essbase Users Only)

You can use system templates to design business rules. After you open a business rule in the Rule Designer, you can find system templates under Existing Objects by expanding an application, dragging a system template from the System Templates folder, and dropping it into the business rule flow chart.

To use a system template in a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Planning or Essbase application type, the application, the plan type (for Planning) or the database (for Essbase), and Rules.

3. Do one of these tasks:
   - Right-click the rule you want to add a system template to, and select Open.
   - Select the rule you want to add a system template to, and select File, Open.
   - Select File, New, then Rule to create a new business rule into which you can drag and drop the system template.

4. When the rule opens in the Rule Designer, from Existing Objects, expand the System Templates folder.

5. Drag the system template you want to add to the business rule, and drop it into the flow chart.

After you drop the system template into the flow chart, the Summary tab becomes active, and the Template Wizard is displayed.

6. Enter information for the template in the Template Wizard.
   - To add information for the Clear Data template, see “Using the Clear Data Template in a Business Rule (Planning and Essbase Users Only)” on page 282.
   - To add information for the Copy Data template, see “Using the Copy Data Template in a Business Rule (Planning and Essbase Users Only)” on page 283.
To add information for the Amount–Unit–Rate template, see “Using the Amount–Unit–Rate Template in a Business Rule (Planning and Essbase Users Only)” on page 284.

To add information for the Allocate Level to Level template, see “Using the Allocate Level to Level Template in a Business Rule (Planning and Essbase Users Only)” on page 285.

To add information for the Allocate Simple template, see “Using the Allocate Simple Template in a Business Rule (Planning and Essbase Users Only)” on page 287.

To add information for the Aggregation template, see “Using the Aggregation Template in a Business Rule (Planning and Essbase Users Only)” on page 290.

To add information for the Export Data template, see “Using the Export Data Template in a Business Rule (Planning and Essbase Users Only)” on page 291.

To add information for the SET Commands template, see “Using the SET Commands Template in a Business Rule (Planning and Essbase Users Only)” on page 292.

7 On Properties, do these tasks:

- **Optional:** Enter a caption for the template.

- **Financial Management users only:**

  - Select **Enable Logging** so if any rules used in the template have log text, the log text is included in the log file when the template is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule's formula statements.

  **Note:** If logging is not enabled for a template, but is enabled for a rule and component that belong to the template, no log file is created because the log setting for the template overrides the settings for the rule and component.

  - Select **Enable Timer** so the time taken to process the template is recorded in the log file. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a template whose timer is enabled and the template contains three rules whose timers are enabled, the time taken to process the template, and each rule in the template, is recorded.

8 On Summary, the information you enter in the Template Wizard is displayed. You can click Edit to edit the information.

9 On Script, you can view the template in its non-graphical format.

  **Note:** You cannot make changes on this tab. If you want to make changes to the template script, save the business rule, then select Edit, Script to convert the business rule and its components into a script.

10 Select File, Save.
Using the Clear Data Template in a Business Rule (Planning and Essbase Users Only)

You use the Clear Data template in a business rule to delete data from a location in the database. To delete data, you specify the location (that is, the application, dimensions, and members) of the data you want to delete. You can delete data for one member or for a block of members you define.

For example, you may want to use the Clear Data template in a business rule to delete forecast data before you copy data from actual to forecast to make changes to it.

➤ To use the Clear Data template in a business rule:

1 Complete step 1 on page 280 through step 5 on page 280.

2 In the Clear Data Template Wizard, on Data Selection, do one of these tasks:
   - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
     Predefined selections are populated with variables you create. For each tab, the type of variables shown can differ. You can use predefined selections on any tab where there is member selection. You can also change the members that are populated when you use predefined selections.
   - Click the Member Selector icon to select members and functions for each of the dimensions listed.

   Note: In the Member Selector, the dimensions listed in the current step of the wizard are available for selection from Dimension. This enables you to select members and functions for any of the dimensions listed in the current step of the wizard.

   - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

3 On Data Selection, do these tasks:
   a. Specify how to clear the data by selecting one of these options:
      - All: Clear cells only.
      - Upper: Clear the entire block.
      - Dynamic: Clear dynamic calc and store blocks.
      - Non-Input: Clear non input blocks.
      - N/A: Clear upper level blocks.
   b. Specify whether to turn the debug tool on for the wizard.

4 If you have a multi currency application with HSP_Rates set to sparse or a single currency application, the Settings step is displayed. This step displays the members you selected on the Data Selection tab. Select a dimension where a single member is selected, preferably a dense dimension.
Note: If you cannot select a dimension where a single member is selected, then you cannot use this template.

5 Click Finish.

Using the Copy Data Template in a Business Rule (Planning and Essbase Users Only)

You use the Copy Data template to copy data from a location in the database to another location that you specify.

For example, you may want to use the Copy Data template to create a budget for 2008 by copying your accounts and entities from 2007. In this case, you copy 2007 actuals to the forecast for 2008.

You may also want to copy data if you have a budget version (worst case) and you want to copy the budget data to create a best case version to which you can make changes.

- To use the Copy Data template in a business rule:
  1 Complete step 1 on page 280 through step 5 on page 280.
  2 In the Copy Data Template Wizard, on Point of View, select the dimensions and members to which you want to restrict the data copy. Click Next.
  3 On Copy From, do these tasks:
     a. Use the Actions icon to select members for the dimensions from which to copy data.
     b. Click Next.
  4 On Copy To, do these tasks:
     a. Use the Actions icon to select members for the dimensions to which to copy data.
     b. Click Next.
  5 On Clear, specify whether to clear data from the destination before new data is copied to it.
  6 On Optimizations, do these tasks:
     a. If the data you want to copy is not created, select Yes to create these blocks during the Copy Data process. If the data is created, select No.
     b. If you selected not to create blocks, specify whether you are sure the block already exists.
     c. If you select Yes to create blocks, proceed to step 7 on page 284. If you select No, proceed to step 6.d on page 283.
     d. On Copy to Other Info, select a dimension for which you have selected only one member in the previous step. If you cannot find any dimensions with a single member selected, click Back, and select to create blocks instead.
     e. On Options, select one of these options:
        • Are you sure the block already exists? If you select No, the missing blocks are created.
Enter a condition for copying data. If you enter a condition, proceed to step 7 on page 284. If you do not enter a condition, proceed to step 6.f on page 284 after you complete this step.

Enter the percentage to be applied to the copied data (for example, enter 10 for 10%), or enter a member that has the % increase.

f. On Clear, specify whether you want to clear the destination before you copy the data.

7 Click Finish.

Using the Amount–Unit–Rate Template in a Business Rule (Planning and Essbase Users Only)

You use the Amount–Unit–Rate template to calculate one of the three variables after you supply two of them.

For example, you may want to use the Amount–Unit–Rate template when you plan for product revenue. For some products, you know what revenue you want to have and what quantity you can have, so you use those two variables to determine the price.

To use the Amount–Unit–Rate template in a business rule:

1 Complete step 1 on page 280 through step 5 on page 280.

2 In the Amount–Unit–Rate Template Wizard, on Enter Variables, use the Actions icon to select a values for two of the three variables:

- Enter or select a member, variable, or function as the Amount value.
- Enter or select a member, variable, or function as the Rate value.
- Enter a member, variable, or function as the Unit value.

See “Working with Members” on page 366, “Working with Variables” on page 385, and “Working with Functions” on page 400.

In the database, the member that shows #missing is calculated based on the other two members’ values.

For Amount member input = Product Revenue
For Units member input = Quantity
For Rates member input = Price.

In the database, for Jan
Product Revenue = 500, Quantity = 10 and Price = # missing
This template calculates the Price based on Product Revenue / Quantity

Note: This template does not work unless the value of the member is #missing.

3 Click Finish.
Using the Allocate Level to Level Template in a Business Rule (Planning and Essbase Users Only)

You use the Allocate Level to Level template to distribute data from members at two different levels in the database outline.

To use the Allocate Level to Level template in a business rule:

1. Complete step 1 on page 280 through step 5 on page 280.

2. In the Allocate Level to Level Template Wizard, on Point of View, for each dimension listed that you do not want to vary during the allocation, do one of these three tasks, then click Next.
   - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
   - Click the Member Selector icon to select members and functions for each of the dimensions listed.

   Note: In the Member Selector, the dimensions listed in the current step of the wizard are available for selection from Dimension. This enables you to select members and functions for any of the dimensions listed in the current step of the wizard.

   - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

3. On Source, for each dimension listed, select a member whose data you want to allocate by doing one of these three tasks.

   Note: Leave the dimension that you want to use for the level to level allocating empty. (You select this dimension in the next step.)

   - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
   - Click the Member Selector icon to select a member or function for each of the dimensions listed.
   - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

4. On Allocation Range:
   a. Select the main dimension to which to allocate the data.
   b. Enter a value, or use the Actions icon to select the parent member (of the main dimension) to which to allocate data.
   c. Enter a value, or use the Actions icon to select the number of the level in the database outline from which to start the allocation.
d. Enter a value, or use the Actions icon to select the number of the level in the database outline at which to end the allocation.

e. Click Next.

5 On Target, select the dimension members to which to allocate the data you selected on Source. (The members you selected on Source are entered here by default.) Do one of these three tasks, then click Next.

- Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
- Click the Member Selector icon to select members and functions for each of the dimensions listed.
- Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

6 On Target, to optimize performance of the template, select one of the dimensions for which you entered a value in the previous step.

7 On Offset, if you want the total amount of allocated values to be written to an offset member, select the allocated members to total from the dimensions listed. Do one of these three tasks, then click Next:

- Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
- Click the Member Selector icon to select members and functions for each of the dimensions listed.
- Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

8 On Driver, do one of these tasks to specify the basis to use to calculate the percentage to apply to each member of the allocation range. Click Next.

- Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
- Click the Member Selector icon to select members and functions for each of the dimensions listed.
- Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

9 Specify whether to update the driver's aggregations on the allocation dimension.

10 On Other Options:

- Specify whether to clear the allocation range before the data is allocated.
- Specify whether to reaggregate the allocation range after the data is allocated.
- Specify whether to round the data.
- Select **Define round member** to specify the number of decimal places for allocated data values.
- Select **No rounding** to use allocated data values as they are.

d. Specify whether to use the debug tool for the wizard.

11 **Click Finish.**

**Using the Allocate Simple Template in a Business Rule (Planning and Essbase Users Only)**

You use the Allocate Simple template to distribute data from a member or members at one level in the database outline to another member.

► To use the Allocation Simple template in a business rule:

1 **Complete step 1 on page 280 through step 5 on page 280.**

2 **In the Allocate Simple Template Wizard, on Point of View, for each dimension listed that you do not want to vary during the allocation, do one of these three tasks, then click Next.**
   - Select a predefined selection from **Use Predefined Selection** to populate the dimensions listed with values.
   - Click the **Member Selector** icon to select members and functions for each of the dimensions listed.

   **Note:** In the Member Selector, the dimensions listed in the current step of the wizard are available for selection from Dimension. This enables you to select members and functions for any of the dimensions listed in the current step of the wizard.

   - Select a dimension in the list, and click the **Actions** icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

3 **In the Allocate Simple Template Wizard, on Source, for each dimension listed, select a member whose data you want to allocate by doing one of these three tasks.**

   **Note:** You must select a member for each dimension listed.

   - Select a predefined selection from **Use Predefined Selection** to populate the dimensions listed with values.

   **Note:** If the predefined selection does not enter a value for each dimension listed, you must enter a value for any dimensions that are empty.

   - Click the **Member Selector** icon to select a member or function for each of the dimensions listed.
Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

4 Enter the percentage of the source amount you want to allocate, or click the Actions icon to select a member, variable, or function that equals this percentage. (See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”) Then click Next.

5 On Allocation Range:
   a. Select the main dimension to which to allocate the data.
   b. Enter a member, or use the Actions icon to select the parent member (of the main dimension) to which to allocate data.

   The data is allocated to the level 0 member (that is, the lowest member in the outline, with no members beneath it) below the parent member in the database outline.
   c. Click Next.

6 On Destination Target, select the dimension members to which to allocate the data you selected on Source. (The members you selected on Source are entered here by default.) Do one of these tasks, then click Next:
   - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
   - Click the Member Selector icon to select members and functions for each of the dimensions listed.
   - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”
   - Select a dimension from which you selected a single member above.

7 On Destination Offset, if you want the total amount of allocated values to be written to an offset member, select the allocated members to total from the dimensions listed. Do one of these tasks, then click Next:
   - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
   - Click the Member Selector icon to select members and functions for each of the dimensions listed.
   - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”
   - Select whether you want to clear the offset data prior to the allocation process.

8 On Driver:
   a. Select an allocation method to specify how the data should be allocated.
      - Select Allocate evenly to allocate data values in the allocation range evenly.
Select **Allocate using a driver** to calculate a percentage to be applied to each member in the allocation range.

b. For each dimension that you did not select on **Point of View**, select a member by doing one of these three tasks:
   - Select a predefined selection from **Use Predefined Selection** to populate the dimensions listed with values.
   - Click the **Member Selector** icon to select a member or function for each of the dimensions listed.
   - Select a dimension in the list, and click the **Actions** icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

c. Click **Next**.

9 **On Driver Options**, specify whether to reaggregate the driver's data before the data is allocated to ensure that the allocated data is accurate. Click **Next**.

10 **On Other Options**, complete these steps:
   a. Specify whether to clear data from the allocation range before the data is allocated.
   b. Specify whether to reaggregate the allocation range after the data is allocated. Reaggregate the values after the data is allocated if you want to see what the new values are.
   c. Specify whether to round the data.
      - Select **Define round member** to specify the number of decimal places for allocated data values. If you select **Define round member**, proceed to step 10.d on page 289.
      - Select **Use biggest value** to round data values to their largest values. If you select **Use biggest value**, proceed to step 10.e on page 289.
      - Select **No rounding** to use allocated data values as they are. If you select **No rounding**, proceed to step 11 on page 289.
      - Specify whether to round the data.
   d. On **Rounding on Mb**
      - Enter the number of decimals to be used for this allocation.
      - Enter a member used for placing the allocation rounding difference.
   e. Do these tasks:
      - Enter the number of decimals to use for this allocation.
      - Enter a member to use for a temporary calculation. Use a member already selected and select a non-calculated member.
      - Select a dimension from which you selected a single member in the grid above.
   f. Specify whether you want to run the debug tool for the wizard.

11 **Click Finish**.
Using the Aggregation Template in a Business Rule (Planning and Essbase Users Only)

You use the Aggregation template to aggregate data values of members you specify. You can define a restricted list of values so only these values are shown to the user. You can also use settings to specify whether data values should be aggregated into the local currency, whether missing values should be aggregated, among other settings.

For example, you may want to use the Aggregation template to aggregate a dimension, Data, at level 0. To aggregate at level 0, you must run the aggregation template to calculate the total and subtotals of the members in the Data dimension.

1. To use the Aggregation template in a business rule:
   1. Complete step 1 on page 280 through step 5 on page 280.
   2. In the Aggregation Template Wizard, on Point of View, do one of these three tasks to define the members to which you want to restrict the aggregation. Click Next.
      - Select a predefined selection from Use Predefined Selection to populate the dimensions listed with values.
      - Click the Member Selector icon to select a member or function for each of the dimensions listed.
      - Select a dimension in the list, and click the Actions icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”
   3. On Full dimension aggregation, select up to five dimensions to aggregate fully. You can select three sparse and two dense dimensions. Click Next.
   4. On Partial dimension aggregation (dense):
      a. Select up to two dense dimensions to aggregate.
      b. For each dense dimension you want to aggregate, use the Actions icon to select a member to aggregate.
      c. For each dense dimension you want to aggregate, select an aggregation level to aggregate. You can aggregate its descendants, children, or ancestors.
      d. Click Next.
   5. On Partial dimension aggregation (sparse):
      a. Select up to three sparse dimensions to aggregate.
      b. For each sparse dimension you want to aggregate, use the Actions icon to select a member to aggregate.
      c. For each sparse dimension you want to aggregate, select an aggregation level to aggregate. You can aggregate its descendants, children, or ancestors.
      d. Click Next.
   6. On Settings, specify settings such as whether the data should be aggregated into the local currency, whether missing values should be aggregated, and other settings.
a. To aggregate data to the local currency, select On. If you select Off, data is aggregated to the currency into which it was entered in the database.

b. To include any missing values in the aggregation, select On. If you select Off, missing values are not aggregated.

c. To optimize the aggregation on sparsely populated dimensions, select On. If you select Off, the calculation is not optimized on sparse dimensions.

d. Select one of these values for the calculator cache. The calculator cache is a buffer in memory that is used to create and track data blocks during calculation operations. The best size for the calculator cache depends on the number and density of the sparse dimensions you are aggregating. (See the Oracle Essbase Database Administrator's Guide.)

   - **High**: A calculator cache with the maximum number of bytes is used.
   - **Default**: A calculator cache with the default number of bytes is used.
   - **Low**: A calculator cache with the minimum number of bytes is used.
   - **Off**: No calculator cache is used.
   - **All**: A calculator cache is used even if one full sparse dimension is not calculated.

7 Click Finish.

**Using the Export Data Template in a Business Rule (Planning and Essbase Users Only)**

You use the Export Data template to export data from a location in the database outline. If you export a binary file, you can also import it using the Export Data template.

➤ To use the Export Data template in a business rule:

1 Complete step 1 on page 280 through step 5 on page 280.

2 In the Export Data Template Wizard, on **Mode**, specify whether to export or import data. Click Next.

3 On **Export data range** do one of these three tasks to specify the range of data to export. Click Next.

   - Select a predefined selection from **Use Predefined Selection** to populate the dimensions listed with values.
   - Click the **Member Selector** icon to select a member or function for each of the dimensions listed.
   - Select a dimension in the list, and click the **Actions** icon to select a member, variable, or function. See Chapter 12, “Using Member Selection, Variables, and Functions to Design Components.”

4 On **Export Data Range**, select the type of file to which to export the data, then click Next.

   - Flat file
   - Database table
   - Binary file
Note: If you want to import the file after you export it, the file must be a binary file.

5 On Output - File, do one of these, depending on the file type to which you are exporting, then click Next.

- If you are exporting to a flat file:
  a. Enter the file name and path surrounded by double quotes.
  b. Select a column delimiter.
  c. Optional: Enter a text string, surrounded by double quotes, to denote missing data values, or use the Actions icon to select one.

- If you are exporting to a database table:
  a. Enter the data source name surrounded by double quotes.
  b. Enter the data source table name surrounded by double quotes.
  c. Enter the data source logon name and password surrounded by double quotes.

- If you are exporting to a binary file, enter the file name and path surrounded by double quotes.

6 On Processing:

a. Specify whether data should be exported in columnar or non-columnar format.

b. Specify the number of decimal places to be exported. (Sixteen is the maximum.)

c. Specify the number of positions the data should have after it is exported. (Sixteen is the default.)

d. Specify whether to include a header row at the beginning of the exported file.

e. Select the dimension to be used as the column header around which other data is organized.

f. Specify whether to format the exported file so it can be imported into a relational database.

g. Specify whether to overwrite a file with the same location and name as the file to be exported, if one exists.

h. Specify whether to export the data or perform a test that runs the export commands without exporting the data.

7 Click Finish.

Using the SET Commands Template in a Business Rule (Planning and Essbase Users Only)

You use the SET Commands template to enter script commands that optimize the performance of calculation scripts. You can include data volume, data handling, memory usage, and threading and logging script commands.

➢ To use the SET Commands template in a business rule:

1 Complete step 1 on page 280 through step 5 on page 280.
2 In the SET Commands Template Wizard, on Data Volume:
   a. Specify whether to calculate all data blocks or only those marked as dirty. Using intelligent calculation, only dirty blocks, such as updated data blocks and their dependent parents, are calculated. Therefore, the calculation is very efficient.
   b. Specify when to mark data as clean.
   c. Specify whether to stop the calculation if the FIX command evaluates to an empty member set.
   d. Specify whether to optimize the calculation of complex formulas on sparse dimensions within large database outlines.
      See the Oracle Essbase Database Administrator's Guide.
   e. Click Next.

3 On Data Handling:
   a. Specify whether to consolidate missing data values.
   b. Specify whether to create new data blocks when a calculation formula assigns anything other than a constant to a member of a sparse dimension.
   c. Specify whether to create blocks in memory and whether to store missing data blocks.
   d. Specify whether to turn off calculation of dense dynamic calc members during batch calculation, if runtime dependent functions are included in formulas on stored members.
   e. Specify whether to turn remote calculation to the source on for applications with transparent partitions.
      See the Oracle Essbase Database Administrator's Guide.
   f. Click Next.

4 On Memory Usage:
   a. Specify the size of the calculator cache.
      - **High**: A calculator cache with the maximum number of bytes is used.
      - **Default**: A calculator cache with the default number of bytes is used.
      - **Low**: A calculator cache with the minimum number of bytes is used.
      - **Off**: No calculator cache is used.
      - **All**: A calculator cache is used even if one full sparse dimension is not calculated.
      - **No changes (use system default)**: Whatever the system uses by default is used.

      **Note**: This option does not display in the script of the rule.
   b. Specify the maximum number of blocks that can be locked when calculating a sparse member formula.
      - **High**: the maximum number of blocks that can be fixed concurrently when one block is being calculated
- **Default**: the default number of blocks that can be fixed concurrently when one block is being calculated
- **Low**: the minimum number of blocks that can be fixed concurrently when one block is being calculated
- **No changes (use system default)**: the number of blocks the system fixes concurrently when one block is being calculated

**Note**: This option does not display in the script of the rule.

c. Click **Next**.

5. **On Threading**:

a. Specify whether to enable parallel calculation by selecting the number of threads to be available for parallel calculation. (By default, serial calculation is used, but parallel calculation may optimize the calculations.)
   - For block storage on 32-bit platforms, select an integer from 1-4.
   - For block storage on 64-bit platforms, select an integer between 1-8.

   **Note**: If you select Off, serial calculation is used; no parallel calculation takes place.

b. Specify how many of the sparse dimensions in the outline should be used to identify potential tasks that can be run in parallel. You can enter a value or use the Actions icon to select a member or variable that holds this value.
   - Select the default value, 1, to indicate that only the last sparse dimension in the outline should be used to identify tasks.
   - Enter a value of 2, for example, to indicate that the last and second-to-last sparse dimensions in the outline should be used.
   - Enter the maximum value, which is the total number of sparse dimensions in the outline to indicate that all sparse dimensions in the outline should be used.

c. Click **Next**.

6. **On Logging**:

a. Select the level of error reporting for calculations:
   - **Summary**: Displays calculation settings and provides statistics on the number of data blocks created, read, and written, and the number of data cells calculated
   - **Detail**: Provides the same information as SUMMARY. In addition, it displays a detailed information message every time a data block is calculated.
   - **Error**: Displays only error messages
   - **Info**: Displays only informational, warning, and error messages
   - **None**: Displays no messages during execution of the calculation script. However, because error messages may contain vital information, they are still displayed.
Only: Performs a simulated calculation only. You may disregard any error message during validation that indicate that a command is not recognized.

b. Specify whether to monitor the progress of the calculation by having completion notices generated at intervals during the calculation.

- High: Generates the maximum number of completion notices
- Default: Generates the default number of completion notices
- Low: Generates the minimum number of completion notices

7 Click Finish.

Saving a System Template as a Custom Defined Template

You may want to customize the content of a system template. Although you cannot edit system templates, you can use Save As to save a system template with a new name. When you save it with a new name, it becomes a custom defined template that you can customize. The original system template is unchanged.

Note: When you perform a Save As on an Essbase system template to save it as a custom defined template, you see a design time prompt called Application in the new custom defined template. However, if you create a new custom defined template for Essbase, you do not see an Application design time prompt in the template. Please ignore the Application design time prompt in the system template you save as a custom defined template.

To save a system template as a custom defined template:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules.

3 Right-click the business rule that contains the system template you want to save as a custom defined template, and select Open.

4 In the Rule Designer flow chart, right-click the system template, and select Open.

5 When the system template opens, select File, Save As.

6 In Save As, the template’s information (the template name and the application name) is displayed by default. Enter a new name for the template, and enter an application and a calculation type, plan type, or database for the location.

7 Click OK.

The new custom defined template is displayed in the Templates folder of the application and calculation type, plan type, or database that you select during save as. You can open it and customize it.
Note: You may need to refresh the application list in the System View to see the new template. Right-click the Templates folder (or the calculation or plan type, the application, or application type), and select Refresh.

Inserting a System Template into a Business Rule's Flow Chart

You can insert a system template into a business rule from within the Rule Designer.

Note: You cannot insert a system template into a custom defined template.

To insert a system template into a business rule:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules.

3 Right-click the business rule into which you want to insert the template, and select Open.

4 In the Rule Designer, under Existing Objects, expand the System Templates folder.

5 Drag the system template you want to insert in the rule, and drop it into the rule’s flow chart in the location in which you want it to display. You can use these system templates:

- To add information for the Clear Data template, see “Using the Clear Data Template in a Business Rule (Planning and Essbase Users Only)” on page 282.

- To add information for the Copy Data template, see “Using the Copy Data Template in a Business Rule (Planning and Essbase Users Only)” on page 283.

- To add information for the Amount–Unit–Rate template, see “Using the Amount–Unit–Rate Template in a Business Rule (Planning and Essbase Users Only)” on page 284.

- To add information for the Allocate Level to Level template, see “Using the Allocate Level to Level Template in a Business Rule (Planning and Essbase Users Only)” on page 285.

- To add information for the Allocate Simple template, see “Using the Allocate Simple Template in a Business Rule (Planning and Essbase Users Only)” on page 287.

- To add information for the Aggregation template, see “Using the Aggregation Template in a Business Rule (Planning and Essbase Users Only)” on page 290.

- To add information for the Export Data template, see “Using the Export Data Template in a Business Rule (Planning and Essbase Users Only)” on page 291.

- To add information for the SET Commands template, see “Using the SET Commands Template in a Business Rule (Planning and Essbase Users Only)” on page 292.
Removing a System Template from a Business Rule's Flow Chart

You remove a system template from a business rule's flow chart by right-clicking it in the flow chart, and selecting Remove. When you remove it from the flow chart, it is not deleted from the database. It exists in the database as a separate object.

To remove a system template from a flow chart:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules.

3 Right-click the business rule from which you want to remove the system template, and select Open.

4 In the flow chart of the Rule Designer, right-click the system template you want to remove, and select Remove.

5 Select File, Save.

Working with Custom Defined Templates

See these topics:

- “About Custom Defined Templates” on page 298
- “Creating a Custom Defined Template” on page 298
- “Designing a Custom Defined Template” on page 299
- “Creating Design Time Prompts for a Custom Defined Template” on page 301
- “Selecting Design Time Prompts for a Custom Defined Template” on page 305
- “Creating a Custom Defined Template from a Template's or Business Rule's Components” on page 309
- “Opening a Custom Defined Template” on page 309
- “Editing a Custom Defined Template” on page 309
- “Saving a Custom Defined Template” on page 310
- “Saving a Custom Defined Template with a Different Name” on page 310
- “Refreshing Custom Defined Templates” on page 311
- “Showing the Usages of a Custom Defined Template” on page 311
- “Deleting a Custom Defined Template” on page 312
- “Copying and Pasting a Custom Defined Template” on page 312
- “Inserting a Custom Defined Template into Business Rule's Flow Chart” on page 313
- “Removing a Custom Defined Template from a Business Rule's Flow Chart” on page 314
About Custom Defined Templates

A custom defined template is designed by an administrator for use in business rules and other templates. You can access custom defined templates from the Templates folder within a calculation type, a plan type, or a database in the System View and within the Rule Designer, under Existing Objects.

Creating a Custom Defined Template

You can create a custom defined template from the System View or from within the Rule, Component, or Template Designer.

To create a custom defined template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Right-click Templates, and select New.

4. Enter the template’s name.

5. Enter the Application Type (Financial Management, Planning, or Essbase).

6. Enter the Application Name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.

7. Do one of these tasks:
   - If you selected Financial Management, select the Calculation Type.
   - If you selected Planning, select the Plan Type.
   - If you selected Essbase, select the Database.

   Note: If you right-click Templates and select New to create a new template, the New Template dialog is populated with the application type, the application, and the calculation or plan type you are working in within the System View.

8. Click OK.

The template is displayed in the Template Designer. To design the template, see “Designing a Custom Defined Template” on page 299.
Designing a Custom Defined Template

You create a custom defined template from the System View. A custom defined template can include scripts, formulas, business rules, and other custom defined templates.

To create a custom defined template:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, do one of these tasks:
   - Select File, New, Custom Defined Template.
   - Expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Right-click Templates, and select New.

3 Enter a name, application type, and application to which the custom defined template belongs. Then do one of the following:
   - Financial Management users only: If you are creating a Financial Management template, enter the calculation type.
   - Planning users only: If you are creating a Planning template, enter the plan type.
   - Essbase users only: If you are creating an Essbase template, enter the database.

4 Click OK.

The new template is displayed in the Template Designer.

5 To design the template, from the Template Palette, drag new and existing objects and drop them into the template’s flow chart within the Template Designer.

**Note:** You can also create new objects like formulas and scripts independently of the template, and add them to the template later.

From **New Objects**, drag and drop these components to insert a new component into the template’s flow chart:

- Formulas: See “Working with Formula Components” on page 316.
- Scripts: See “Working with Script Components” on page 327.
- Conditions: See “Working with Condition Components” on page 332.
- Member Ranges: See “Working with Member Range Components” on page 337.
- Data Ranges: See “Working with Data Range Components (Financial Management Users Only)” on page 341.
- Fixed Loops: See “Working with Fixed Loop Components” on page 346.

From **Existing Objects**, drag existing rules, formulas, scripts, and templates from Financial Management, Planning, or Essbase applications and drop them into the template’s flow chart.
If you drag and drop a formula or script component into the flow chart, by default it becomes a shared object. If you do not want the object to be shared, you can clear the Shared check box on the formula or script component’s Properties tab. See “Sharing Script and Formula Components” on page 354.

**Note:** You cannot use system templates in a custom defined template. If you want to use the properties of a system template in a custom defined template, save the system template as a custom defined template using Save As. See “Saving a System Template as a Custom Defined Template” on page 295.

**Tip:** As you add components to a template, you may want to increase or decrease the size of the component icons and the amount of detail that is displayed in the flow chart. You can use the zoom bar to zoom in and out within the flow chart. When the flow chart is displayed in small or very small sizes, the component captions do not display, but you can place your mouse pointer over any icon to read its caption. Regardless of the size of the components in the flow chart, you can select a component to view its properties, and edit a component, on the Properties tab.

6 **Optional:** To enter a design time prompt that prompts users to enter information when they are using the template, use the table below the Template Designer flow chart. See “Creating Design Time Prompts for a Custom Defined Template” on page 301.

When you open a custom-defined template, by default it contains two system design time prompts:

- Application: an application design time prompt determines whether the application is a multi-currency application
- Upper POV: a member range design time prompt that retrieves a list of the members from the upper member ranges used in the business rule

7 On **Properties**, enter properties for the template. (As you move amongst components in the template’s flow chart, the number and contents of the tabs change. To enter properties and other information for the template’s components, select the component in the flow chart. See Chapter 11, “Using Components to Design Business Rules and Templates.”)

- **Optional:** Edit the template name by entering a new one of up to 50 characters. (The name defaults from the New Template dialog.)
- **Optional:** Enter a description of up to 255 characters for the template.
- **Optional:** Enter a caption for the template. The caption is displayed beneath the template in flow charts.
- **Optional:** Enter comments for the template. For example, you may want to describe what the template is used for.
- **Financial Management users only:**
  - Select **Enable Logging** so if any rules used in the template have log text, the log text is included in the log file when the template is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a business rule's formula statements.
Note: If logging is not enabled for a template, but is enabled for a rule and component that belong to the template, no log file is created because the log setting for the template overrides the settings for the rule and component.

- Select Enable Timer so the time taken to process the template is recorded in the log file. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a template whose timer is enabled and the template contains three rules whose timers are enabled, the time taken to process the template, and each rule in the template, is recorded.

8 On Usages, you can view the following information about the template:

- The names of the business rules and templates that are using the template
- The calculation type, plan type, or database of the business rules and templates that are using the template
- The application name of the business rules and templates that are using the template
- Whether the business rules and templates that are using the template are deployed
- Whether the business rules and templates that are using the template are validated
- A description of the business rules and templates that are using the template

9 On Script, you can view the template in its non-graphical format.

Note: You cannot make changes on this tab. To make changes to the template script, save the business rule, then select Edit, Script to convert the business rule and its components into a script.

10 Select File, Save.

Creating Design Time Prompts for a Custom Defined Template

You can enter design time prompts for custom defined templates so when users are using the template to design business rules, they are prompted to enter the correct information.

To create design time prompts for a custom defined template:

1 Complete step 1 on page 299 through step 5 on page 299.

2 In the design time prompt table, under Name, enter a name for the design time prompt.

3 Under Type, click on the arrow, and select the design time prompt type from the dropdown list:

Note: Different design time prompt types are available for different application types.

- Attribute—prompts the user to enter an attribute from the application to which the template belongs. If you select Attribute, do these tasks:
  a. Click User Input to select an attribute for the design time prompt.
b. **Optional:** Click **Choose Dimension Limits** to select limits for the dimensions. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.

- **Boolean**—prompts the user to enter Boolean values.
- **Cross Dimension**—prompts the user to enter a range of dimensions from the application to which the template belongs. If you select Cross Dimension, do these tasks:
  - **Optional:** Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - **Optional:** Click **Choose dimension limits** to select limits for the dimension. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.
- **Condition**—prompts the user to enter a condition. See “Using the Condition Builder to Create Conditional Statements” on page 320.
- **Dimension**—prompts the user to enter a dimension from the application to which the template belongs. If you select Dimension, do these tasks:
  - **Optional:** Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - **Optional:** Click **Choose dimension limits** to select limits for the dimension. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.
- **Dimensions**—prompts the user to enter dimensions from the application to which the template belongs. If you select Dimensions, do these tasks:
  - **Optional:** Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - **Optional:** Click **Choose dimension limits** to select limits for the dimensions. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.
- **Member**—prompts the user to enter a member from a selected dimension in the application. If you select Member, do these tasks:
  - **Optional:** Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - **Optional:** Click **Choose dimension limits** to select limits for the dimension to which the member belongs. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.
- **Members**—prompts the user to enter multiple members from a selected dimension in the application. If you select Members, do these tasks:
  - **Optional:** Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - **Optional:** Click **Choose dimension limits** to select limits for the dimension to which the members belong. See “Defining Dimension Limits for Cross Dimension,
Member range—prompts the user to enter a range of members from a selected dimension in the application. If you select Member Range, do these tasks:
  - Optional: Click **Dependency** to define dependencies. See “Defining Dependencies for Design Time Prompts” on page 307.
  - Optional: Click **Choose dimension limits** to select limits for the dimension to which the member range belongs. See “Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts” on page 306.

Numeric—prompts the user to enter a number from a selected dimension in the application.

Restricted list—prompts the user to enter a member from a restricted list of members. If you select Restricted List, do this task:
  - Click **User Input** to define a restricted list of members. See “Defining a Default Value for Cross Dimension, Member Range, and Restricted List Design Time Prompts” on page 307.

Separator—prompts the user to enter a separator.

String—prompts the user to enter a text string.

Password—prompts the user to enter a password

4 **Select Prompt It?** if you want the design time prompt to display for users when they use the template.

5 **Select Mandatory** if it is mandatory for users to enter information for the design time prompt.

6 **Select Read Only** if users should read the prompt only and not enter information for it.

7 In **DTP Text**, enter the text of the design time prompt. If the design time prompt is a password, enter the password.

8 In **Default Value**, enter or select a default value for the design time prompt.

If the design time prompt is a cross dimension design time prompt, do these tasks:
  - Click **User Input** to define the cross dimension selection. See “Defining a Default Value for Cross Dimension, Member Range, and Restricted List Design Time Prompts” on page 307.
  - Click **Choose DTP as source** to select an existing design time prompt. See “Selecting Design Time Prompts for a Custom Defined Template” on page 305.

If the design time prompt is a member range design time prompt, do these tasks:
  - Click **User Input** to define the member range for dimensions. See “Defining a Default Value for Cross Dimension, Member Range, and Restricted List Design Time Prompts” on page 307.
  - Click **Choose DTP as source** to select an existing design time prompt. See “Selecting Design Time Prompts for a Custom Defined Template” on page 305.
Repeat step 1 on page 301 through step 8 on page 303 for each design time prompt you want to create for the template. As the number of design time prompts you create increases, you may need to organize the design time prompts into steps, or add, copy, or reorder the rows in the table.

- To reorder a table row, select the row, and use the up arrow or the down arrow to move the row to the correct position in the table.
- To insert or delete rows, use the Insert Row and Delete Row icons.
- To organize the design time prompts in the table, click Create/Edit Wizard. See “Organizing Design Time Prompts with the Template Wizard” on page 304.
- To insert a new row into the design time prompt table, right-click the last row, and select Insert Row.
- To delete a row from the design time prompt table, right-click the row, and select Delete Row.
- To copy a row in the table, right-click the row, and select Copy.
- To copy the entire table, right-click a row, and select Copy Grid.
- To paste a copied row or rows, right–click the row beneath which you want the copied row or rows to display, and select Paste.

Select File, Save.

Organizing Design Time Prompts with the Template Wizard

You can use the Template Wizard Designer to organize design time prompts for custom-defined templates. The wizard enables you to organize the display of design time prompts in a template: you can decide what design time prompts you display in each step and choose to display or hide a step based on conditions that you define. The conditions you create can be based on a member or dimension selection that is made in earlier steps in the wizard, or made in an upper FIX statement in the rule where the template is used. For example, you can use the UpperPOV design time prompt to test whether all dense dimensions are part of the Upper level design time prompt. If they are, the step for dense dimension aggregation is not displayed; if they are not, the step for dense dimension aggregation is displayed.

To organize design time prompts:

1. Complete step 1 on page 299 through step 6 on page 300.
2. In the design time prompt table, click Create/Edit Wizard.

   Note: Before you can organize design time prompts into steps, you must create the design time prompts in the design time prompt grid below the template flow chart.

3. In the Template Wizard Designer, click Add Step (+) to create a step in the wizard. Do these tasks:
   a. Give the step a name. For example, Step 1.
   b. Select Before or After, then the step number, if you want the step to display before or after a step that already exists.
c. Enter any comments for the step. For example, you may want to state what design time prompts display in the step.

d. Click **OK**.

The step is displayed in the Step dropdown list in the Template Wizard Designer. As you select different steps from the Step dropdown, you can see which design time prompts display for the step in the Selected DTPs list.

4. **For the step you created, select the design time prompts you want to display in the step from Available DTPs, and use the right arrow to move them to Selected DTPs.**

   **Tip:** In Available DTPs, use Shift + click and Ctrl + click to select multiple contiguous, and multiple non-contiguous, design time prompts. In Selected DTPs, use the up and down arrow keys to reorder the design time prompts.

5. **Click the Comments icon to add any comments for the design time prompt.**

6. **If you want to create a condition for the design time prompt, perform these tasks:**

   a. In the condition grid, under **DTP**, select a design time prompt. The system design time prompts, **Upper POV** and **Application**, display in the **DTP** dropdown by default. Their default values are:

      - Upper POV: Is Empty and Is Not Empty, which test whether the design time prompt is empty
      - Application: Is Multi-Currency and Is Single Currency, which test whether the application is a multi-currency or a single currency application

   b. In **Operator**, select = (equals) or < > (greater than or less than).

   c. In **Value**, select a value for the design time prompt condition.

   d. Repeat these steps until you define all of the statements in the condition. To add rows, click the plus (+) in last row.

      The first row in the condition is the IF statement; each additional row is an AND statement. For example, the condition you define might read, “If the application is a multi-currency application AND the member range is not empty, then display this step.”

7. **Repeat these steps until you create steps for all of the design time prompts you want to display in the wizard.**

   - To add more steps, click **Add Step (+)**.
   - To edit a step, click **Edit Step**.
   - To delete a step, click **Delete Step**.

8. **Click OK.**

**Selecting Design Time Prompts for a Custom Defined Template**

You can select an existing design time prompt and insert it into a custom defined template.
To select a design time prompt:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Right-click the custom defined template for which you want to insert a design time prompt, and select Open.

4. In the design time prompt table, select a prompt type.

5. In Default Value, click the Choose DTP as Source icon.

6. In DTP Selector, select a design time prompt, and click OK.

7. Select File, Save.

**Defining Dimension Limits for Cross Dimension, Dimension, Dimensions, Member, and Member Range Design Time Prompts**

When you create a cross dimension, dimension, dimensions, member, or member range design time prompt for a custom defined template, you must specify whether you want the prompt to display for dense and sparse dimensions, dense dimensions only, or sparse dimensions only.

To select the type of dimensions for which cross dimension, dimension, dimensions, member, or member range design time prompts should display:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Right-click the custom defined template for which you want to create limits, and select Open.

4. In the design time prompt table, select one of these design time prompt types:
   - Cross Dimension
   - Dimension
   - Dimensions
   - Member
   - Member Range

5. In the column to the right of the Type column, click the Choose Dimension Limits icon.

6. In Define Dimension Type, select one of these options:
   - Show Sparse: to display only sparse dimensions
   - Show Dense: to display only dense dimensions
Both: to display both dense and sparse dimensions

7 Click OK.

8 Select File, Save.

Defining a Default Value for Cross Dimension, Member Range, and Restricted List Design Time Prompts

You can define a default value for cross dimension, member range, and restricted list design time prompt types by selecting members as the default value.

To define a default value for cross dimension, member range, and restricted list design time prompt types:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3 Right-click the custom defined template for which you want to define default design time prompt values, and select Open.

4 In the design time prompt table, select one of these design time prompt types:
   - Cross Dimension
   - Member Range
   - Restricted List

5 Click the User Input icon.

6 Do one of these tasks:
   - If you are defining default values for a cross dimension or member range design time prompt, click the Actions icon to select values for each of the dimensions listed.
     - To enter variables, see “Working with Variables” on page 385.
     - To enter members, see “Working with Members” on page 366.
     - To enter functions, see “Working with Functions” on page 400.
   - If you are defining default values for a restricted list, enter a Rule Builder Value and a Substituted Value.

7 Click OK.

8 Select File, Save.

Defining Dependencies for Design Time Prompts

You can define inclusive and exclusive dependencies for design time prompts. If you designate a prompt as inclusive, the selections a user can make for prompts displayed are dependent on
the selection the user makes for the inclusive prompt. For example, if you designate prompt 1 as inclusive, and the user selects the Account dimension for prompt 1, the selections for prompts after prompt 1 display only the Account dimension.

If you designate a prompt as exclusive, the selections a user can make for prompts displayed are not dependent on the selection the user makes for the exclusive prompt. For example, if you designate prompt 1 as exclusive, and the user selects the Entities dimension for prompt 1, the selections for prompts after prompt 1 display all dimensions except the Entities dimension.

➤ To define dependencies for cross dimension, dimensions, dimension, member, members, and member range design time prompt types:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Right-click the custom defined template for which you want to define dependencies, and select Open.

4. In the design time prompt table, select one of these design time prompt types:
   - Cross Dimension
   - Dimension
   - Dimensions
   - Member
   - Members
   - Member Range

5. Click the Dependency icon.

6. Select the design time prompt for which you want to define a dependency.

7. Do one of these tasks:
   - Select Exclusive to make users' selections for prompts after this prompt exclude what is selected for this prompt.
   - Select Inclusive to make users' selections for prompts after this prompt include what is selected for this prompt.
   - Select None if you do not want a dependency for this prompt. (This is the default selection.)

8. Click OK.

9. Select File, Save.
Creating a Custom Defined Template from a Template's or Business Rule's Components

You can create a custom defined template by selecting components in a business rule or template's flow chart.

To create a custom defined template from a business rule or template's components:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates.
3. Open the rule or template that contains the components you want to save as a template.
4. In the flow chart of the Rule Designer or Template Designer, select the components you want to save as a template, right-click, and select Save As Template.
5. In Save As, click OK.

Tip: To see the new template, you may need to refresh the System View. Click the Refresh toolbar icon to refresh the entire application list. You can also refresh the Templates folder or any level above it in the application list to see the new template. See “Refreshing Custom Defined Templates” on page 311.

Opening a Custom Defined Template

You can open a custom defined template from the System View or from the Rule Designer by double clicking it in a business rule's flow chart.

To open a custom defined template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.
3. Right-click the custom defined template you want to open, and select Open.

Editing a Custom Defined Template

You can edit the following properties of a custom defined template:

- The template’s name, description, caption, and comments
- The components that comprise the template
- The steps for the template
The design time prompts for the template

Financial Management users only: Whether logging and timer options are enabled

Saving a Custom Defined Template

You save a custom defined template after you create it or make changes to it.

➢ To save a custom defined template after you create or edit it, select File, Save.

Note: You may need to refresh the application list in the System View to see a custom defined template after you save it. To do this, you can right-click any of these levels in the outline: the application type, the application, the calculation type (Financial Management), the plan type (Planning), or the database (Essbase), or the Templates folder, and select Refresh.

Saving a Custom Defined Template with a Different Name

You can save a custom defined template with a different name using Save As. You can also copy a custom defined template from one rule to another within the same application type using Save As. Save As creates a copy of the original template’s content with a different name to distinguish it from the original.

➢ To save a custom defined template with a different name:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3 Right-click the custom defined template you want to save with a different name, and select Open.

4 In the Template Designer, select File, Save As.

5 In Save As, do these tasks:

   a. Enter the template’s new name and the Application Name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.

   b. If the custom defined template is a Financial Management custom defined template, select the Calculation Type; if the custom defined template is a Planning custom defined template, select the Plan Type; if the custom defined template is an Essbase custom defined template, select the Database.
Note: You cannot change the application type or the calculation type of a custom defined template you save with a different name. You can change the application and plan type to which a custom defined template belongs when you save the custom defined template with a different name.

c. Click OK.

The new custom defined template is added to the application list in the System View. You may need to refresh the application list to see the new template. See “Refreshing Custom Defined Templates” on page 311.

Refreshing Custom Defined Templates

After you create a custom defined template, you may need to refresh the application list in the System View to see the new template in the Templates folder. When you refresh the application type, application, or calculation or plan type to which a custom defined template belongs, you refresh the Templates folder by default. Refreshing the Templates folder, however, does not refresh higher levels (that is, calculation or plan types, applications, or application types) in the application list.

To refresh custom defined templates:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase) that contains the custom defined templates you want to refresh.

3. Right-click Templates, and select Refresh.

Note: You can also refresh custom defined templates by refreshing any higher level in the database outline (for example, the calculation type for Financial Management templates, the plan type for Planning templates, or the database for Essbase templates).

Showing the Usages of a Custom Defined Template

You can display the business rules that are using a custom defined template. Viewing the usages of a custom defined template is useful when you want to delete the custom defined template and need to know what objects, if any, are using it. You must remove the template from any objects that are using it before you can delete the template. See “Removing a Custom Defined Template from a Business Rule's Flow Chart” on page 314.

To show the usages of a custom defined template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase) and Templates.

Right-click the custom defined template whose usages you want to see, and select Show Usages.

You can view this information about the custom defined template:
- The names of the business rules that are using the custom defined template
- The calculation type, plan type, or database of the business rules that are using the custom defined template
- The application name of the business rules that are using the custom defined template
- Whether the business rules that are using the custom defined template are deployed
- Whether the business rules that are using the custom defined template are validated
- A description of the business rules that are using the custom defined template
- The folders in the Custom View that contain this template

After you review the information, click OK.

Deleting a Custom Defined Template

You can delete a custom defined template from the System View. Before you delete a custom defined template, make sure it is not being used in any business rules or any custom folders. To see if a custom defined template is being used by any business rules or custom folders, you can show its usages from the System View. (See “Showing the Usages of a Custom Defined Template” on page 311.) If the template is being used by business rules, you must remove it from them before you can delete it. See “Removing a Custom Defined Template from a Business Rule's Flow Chart” on page 314.

To delete a custom defined template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.
3. Right-click the template you want to delete, and select Show Usages to make sure the template is not being used by any business rules or templates.
4. Right-click the template you want to delete, and select Delete.
5. Click OK to confirm deletion of the template.

Copying and Pasting a Custom Defined Template

You can copy a custom defined template and paste it into another business rule. The rule into which you copy it must belong to the same application type and calculation or plan type. For
example, you can copy a custom defined template from a rule in a Plan1 plan type in a Planning application to another rule in a Plan1 plan type in a Planning application, but not to a rule in a Capital Asset plan type.

To copy and paste a custom defined template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.
3. Right-click the template you want to copy, and select Open.
4. In the Template Designer, select Edit, Copy.
5. Select File, Open to open the rule or template into which you want to paste the template.
6. In the Template Designer or Rule Designer of the template or rule into which you want to paste the custom defined template, select Edit, Paste.
7. Select File, Save.

Inserting a Custom Defined Template into Business Rule's Flow Chart

You can insert a copy of a custom defined template into a business rule by dragging and dropping the custom defined template into the flow chart of the business rule into which you want to insert it.

To insert a custom defined template into a business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules.
3. Right-click the business rule into which you want to insert the template, and select Open.
4. In the Rule Designer, under Existing Objects, expand the Templates folder.
5. Drag the template you want to insert in the rule, and drop it into the rule's flow chart in the location in which you want it to display.
6. Select File, Save.
Removing a Custom Defined Template from a Business Rule's Flow Chart

You remove a custom defined template from a business rule's flow chart by right-clicking it in the flow chart, and selecting Remove. When you remove it from the flow chart, it is not deleted from the database. It exists in the database as a separate object.

To remove a template from a flow chart:

1. Log on to EPM Workspace, and launch Calculation Manager. See "Logging on to EPM Workspace and Accessing Calculation Manager" on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules.

3. Right-click the business rule, and select Open.

4. In the flow chart of the Rule Designer, right-click the template you want to remove, and select Remove.

5. Select File, Save.

Searching for a Template

You can use the Advanced Search feature of EPM Workspace to search for a template or any other objects in Calculation Manager. See the Oracle Enterprise Performance Management Workspace Users Guide.
About Calculation Manager Components

A business rule is composed of components, including formulas, scripts, conditions, member ranges, and loops.

- Formulas contain calculation statements that users can write or design using members and functions, and optionally, conditional statements.
- Scripts contain only Visual Basic (for Financial Management) or Essbase (for Planning and Essbase) calc script statements.
- Conditions contain conditional statements (that is, If...Then statements) that are either true or false.
- Member ranges, or metadata loops, contain lists of metadata members (for example, lists of accounts).
- Data Ranges (Financial Management users only), or data loops, contain lists of data records (for example, lists of account values).
- Fixed loops contain metadata loops that, for example, loop through a list of metadata members like accounts. Financial Management fixed loops can also contain data loops that, for example, loop through Financial Management data a fixed number of times.
You can create formula and script components independently of the rules and templates they are used in. Because they are independent objects, you can open, save, edit, delete, and export them (among other actions) from within the System View. Unlike formulas and scripts, you must create condition, range, and loop components from within rules and templates. You cannot open, save, delete, or export them independently of the rules and templates to which they belong.

Working with Formula Components

See these topics:

- “About Formula Components” on page 316
- “Creating a Formula Component” on page 316
- “Designing a Formula Component” on page 317
- “Using the Condition Builder to Create Conditional Statements” on page 320
- “Entering Logging Information for Formula Statements (Financial Management Users Only)” on page 322
- “Entering Comments for Formula Statements” on page 323
- “Using Quick Edit to Enter a Caption for a Component (Planning and Essbase Users Only)” on page 324
- “Opening a Formula Component” on page 324
- “Editing a Formula Component” on page 325
- “Deleting a Formula Component” on page 326
- “Copying and Pasting a Formula Component” on page 326

About Formula Components

A formula component is comprised of formula calculation statements. To create the calculation statements of a formula, you enter or select members, functions, and conditions. As you create the formula, each of its calculation statements is listed in a row within a grid in the Component Designer.

Creating a Formula Component

You can create a formula component from the System View. Formula components can be used in business rules and templates.

1. To create a formula component:

   1. Enter the formula’s name.
   2. Enter the Application Type (Financial Management, Planning, or Essbase).
3 Enter the Application Name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.

4 Do one of these tasks:
   a. If you selected Financial Management, select the **Calculation Type**.
   b. If you selected Planning, select the **Plan Type**.
   c. If you selected Essbase, select the **Database**.

   **Note:** If you right-click Formulas and select New to create a new formula, the New Formula dialog is populated with the application type, the application, and the calculation or plan type you are working in within the System View.

5 Click **OK**.

The formula is displayed in the Component Designer. To design the formula component, see “Designing a Formula Component” on page 317.

### Designing a Formula Component

You can create a formula component from the System View. You can also create a formula component from within the Rule or Template Designer as you are designing a business rule or template. Formula components can be used in business rules and templates.

To create a formula component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and **Formulas**.

3 Do one of these tasks:
   - Select **File, New, Formula Component**.
   - Right-click **Formulas**, and select **New**.

   **Note:** You can also create a formula component from within a business rule or template by dragging a new formula component into the business rule or template flow chart. See “Designing a Business Rule” on page 243 and “Designing a Custom Defined Template” on page 299.

4 Enter a name, application type, and application to which the formula component belongs. Then do one of the following:
   - **Financial Management users only:** If you are creating a Financial Management formula component, enter the calculation type.
- **Planning users only**: If you are creating a Planning formula component, enter the plan type.
- **Essbase users only**: If you are creating an Essbase formula component, enter the database.

5 Click **OK**.

6 On **Properties**, complete these steps:
   a. **Users creating a formula component for a business rule only**: When you create a formula component, **Shared** is not selectable. When you drag the formula component and drop it into the flow chart of a rule or template, **Shared** is selected by default. To create a copy of the formula component within the rule or template instead, clear **Shared**.
   b. **Optional**: Edit the formula's name by entering a new one of up to 50 characters. (The name defaults from the New Formula dialog.)
   c. **Optional**: Enter a description of up to 255 characters for the formula.
   d. Enter a caption for the formula. The caption is displayed below the formula in the **Rule Designer** and **Template Designer** flow charts.

   **Note**: If you do not enter a caption, the component's name is displayed in the flow chart.
   e. Enter comments for the formula. For example, you may want to tell users what the formula should be used for.

7 **Financial Management users only**: Select **Enable Logging** so, if the formula has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, in the business rule’s formula statements.

   **Note**: If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

8 **Financial Management users**: Select **Enable Timer** so the time taken to process the formula is recorded in the log file when the rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three formulas whose timers are enabled, the time taken to process the rule, and each formula in the rule, is recorded.

9 **Financial Management users creating a formula component for a business rule only**: Select **Disabled** to temporarily disable the formula component within any business rules using it while the script is generated.

10 On **Formula**, enter a caption for the formula.

11 **Users creating a formula component for a template only**: Select **Use Design Prompt** if you want to use a design time prompt in the formula component. Then in the condition grid, define a condition for the design time prompt by performing these tasks:
   a. In **DTP**, select a design time prompt.
   b. In **Operator**, select an operator: = = or <>.
c. In Value, enter or select a value for the design time prompt.
d. Repeat these steps to create as many statements in the condition as you need.

**Tip:** Click the plus (+) and minus (-) icons to add and delete rows from the

12 **Planning and Essbase users only:** By default, Calculation Manager starts processing a formula component calculation with the first member you enter in the grid. If you want Calculation Manager to start processing the formula component calculation with another member, enter the member or function name in Member Block, or click the Ellipsis icon to pick one from the Member Selector. See “About Adding Members and Functions to a Component” on page 366.

13 In Comment, enter comments for the conditional and formula statements you want to create.

14 **Optional:** To create a conditional statement (that is, an IF statement) for the formula component, click Add Condition. See “Using the Condition Builder to Create Conditional Statements” on page 320.

15 **Optional:** In the IF row that is displayed, enter the text of the condition statement, or click the Add/Edit condition icon in the right column of the row to access the Condition Builder. The Condition Builder enables you to design a condition statement graphically.

**Note:** Though you can select IF, ELSE IF, and ELSE from the down arrow, by default, the first statement must be an IF statement.

16 **Optional:** Use the Condition Builder to design the IF conditional statement. See “Using the Condition Builder to Create Conditional Statements” on page 320.

17 In the Formula row, to create a formula statement, click in the row to the left of the equal sign. Select the Actions icon, and select:

**Note:** If you created a conditional statement (that is, an IF statement) in step 14 through step 16, the formula statement you create in this step is the THEN statement of the condition.

- Variable (See “Working with Variables” on page 385.)
- Member (See “Working with Members” on page 366.)
- Function (See “Working with Functions” on page 400.)

18 In the Formula row, to complete the formula statement, click in the row to the right of the equal sign. Click the Actions icon, and select:

- Variable (See “Working with Variables” on page 385.)
- Member (See “Working with Members” on page 366.)
- Function (See “Working with Functions” on page 400.)

19 **Financial Management users only:** For each statement, click the Logging Information icon to enter an optional condition statement for the log; the log information is written to the log file only if the condition is met. After you save the logging information, the Comments icon is displayed with horizontal lines to indicate that there is log text. See “Entering Logging Information for Formula Statements (Financial Management Users Only)” on page 322.
Note: You need to select Enable Logging to include the log text in the log file.

20 Click the Comments icon to enter comments about the calculation statement row. Click OK.

21 Optional: If you want to create another IF statement, or an ELSE IF or ELSE statement, complete these steps:
   a. Click Add Condition.
   b. Click the down arrow, and select one of these options:
      - IF: select this to create an IF conditional statement. If the IF statement is TRUE, then actions are performed; if the IF statement is FALSE, then other actions are performed.
      - ELSE IF: select this to create an ELSE IF conditional statement. The actions in this statement are performed if there is an associated IF statement and the IF statement is FALSE.
      - ELSE: select this to create an ELSE conditional statement. The actions in this statement are performed if there is an associated ELSE IF statement and the ELSE IF statement is FALSE.

Note: If you remove the condition statement from an IF or ELSE IF block, and if the next block contains an ELSE IF statement, then the next block is changed to an IF block. However, if the next block contains an ELSE statement, then the condition statement in this block is removed.

   c. Repeat step 14 on page 319 through step 20 on page 320 to design additional statements for the formula component. A formula grid can consist of one or more formula blocks that contain a collection of formula statements. You can also enter a comment and a condition for the block, though this is optional.

   Tip: If necessary, click the + icon to add more formula rows.

22 Users creating a formula component for a business rule only: On Usages, you can view the rules that use the formula component.

Note: None of the information on this tab can be edited.

23 Select File, Save.

Using the Condition Builder to Create Conditional Statements

The Condition Builder enables you to create conditional statements for formula and condition components. Conditional statements are also known as If...Then statements. If the first part (the If part) of a conditional statement is true, then the second part of the statement (the Then part) is also true. If the first part of a conditional statement is false, then the second part may or may not be true.
To create a conditional statement:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and **Formulas**. Do one of these tasks:
   - Right-click the formula for which you want to create a conditional statement, and select **Open**.
   - Select the formula for which you want to create a conditional statement, and select **File**, **Open**.

3. In the **Component Designer**, click the **Add Condition** icon.

4. In the IF row that is displayed, enter the text of the conditional statement, or click the **Add/Edit Condition** icon to the right of the row to access the Condition Builder. The Condition Builder enables you to design a condition statement graphically.

   **Note:** Though you can select IF, ELSE IF, and ELSE from the down arrow, by default, the first statement must be an IF statement.

5. In the **Condition Builder**, select **Metadata Condition** or **Data Condition**.

6. Do one of these tasks:
   - Enter a value in **Function** (for a metadata condition) or **Formula** (for a data condition).
   - Click in the **Function** or **Formula** row to display the **Actions** icon. Click the **Actions** icon, and select an option to create a formula or function:
     - Variable (See “Working with Variables” on page 385.)
     - Member (See “Working with Members” on page 366.)
     - Function (See “Working with Functions” on page 400.)

7. Enter one of these operators:
   - = (equal to)
   - > (greater than)
   - < (less than)
   - <> (greater than or less than)
   - >= (less than or equal to)
   - <= (greater than or equal to)

8. Do one of these tasks:
   - Enter a value in **Value**.
   - Click in the **Value** row to display the **Actions** icon. Click **Actions**, and select an option to create a value for the formula or function:
     - Variable (See “Working with Variables” on page 385.)
 Member (See “Working with Members” on page 366.)

 Function (See “Working with Functions” on page 400.)

9 Enter any comments for the condition.

10 Click the + icon to add the condition to the Condition grid. (You can also use the + icon to create a copy of a selected row, and add it to the Condition grid.) Use the — icon to replace a selected row in the Condition grid with a metadata or data condition.

Tip: Use the up arrow and down arrow icons to reorder the condition statements in the grid.

11 Click OK.

The condition is inserted into the IF statement.

12 Optional: Repeat step 3 through step 11 for each condition statement you want to create.

13 Optional: For each additional condition statement, double-click in the first column to display a dropdown list from which you can select an operator to start each condition statement:

- IF: You can start only the first condition statement with IF. (This is the default that displays only for the first condition statement you create.)
- NOT IF: You can start only the first condition statement with NOT IF.
- AND: You can start any condition statement (except the first) with AND when you want to create a compound of at least two condition statements.
- OR: You can start any condition statement (except the first) with OR when you want to create a compound of at least two condition statements.
- AND NOT: You can start any condition statement (except the first) with AND NOT when you want to include the condition statement that follows it with the formula component.
- OR NOT: You can start any condition statement (except the first) with OR NOT when you want to exclude the condition statement that follows it from the formula component.

Tip: Use the Group and Ungroup icons to add and remove parentheses from condition statements. To group or ungroup multiple condition statements, use Ctrl + Click or Shift + Click to select the condition statements you want to group or ungroup.

14 Click OK.

The condition statements are inserted into the Condition row.

**Entering Logging Information for Formula Statements (Financial Management Users Only)**

You can enter logging information for Financial Management formula statements.
To enter logging information:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Formulas. Right-click the formula for which you want to add logging information and select Open.

3. In the Component Designer, for each statement, click the Logging Information icon to enter an optional condition statement for the log. The log information is written to the log file only if the condition is met. After you save the logging information, the Comments icon is displayed with horizontal lines to indicate that there is log text.

   **Note:** Select Enable Logging to include the log text in the log file.

4. Select Use Variable if you want to use a variable. Then select a variable from Variable.

5. Select Use standard display format if you want the log text to display in a standard format.

6. In Log Text, enter the condition statement for the log, or click the Add/Edit Condition icon to use the Condition Builder to create a condition statement. See “Using the Condition Builder to Create Conditional Statements” on page 320.

7. In Log Expression, enter an expression.

8. Click OK.

**Entering Comments for Formula Statements**

You can enter comments for formula statements.

To enter comments for formula statements:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Formulas.

3. Right-click the formula for which you want to add comments, and select Open.

4. Do one of these tasks:
   - If the formula for which you want to add comments is in a business rule, expand Rules, right-click the rule containing the formula component, and select Open.
   - If the formula for which you want to add comments is in a template, expand the Templates folder, right-click the rule containing the formula component, and select Open.
   - If you want to open the formula by itself, expand the Formulas folder, right-click the formula, and select Open.
5 Do one of these tasks:
   - If you are adding comments for a formula in a business rule, in the Rules Designer flow chart, select the formula component, the Formula tab, and the Comments icon.
   - If you are adding comments for a formula in a template, in the Template Designer flow chart, select the formula component, the Formula tab, and the Comments icon.
   - If you are adding comments for a formula component by itself, in the Component Designer, for each formula statement, click the Comments icon.

6 In the Comments dialog, enter comments for the formula statement.

7 Click OK.

Using Quick Edit to Enter a Caption for a Component (Planning and Essbase Users Only)

If you drag and drop a component into a business rule or template flow chart, you can use Quick Edit to enter a caption for the component rather than entering the caption on the Properties tab.

To enter the caption for a component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Planning or Essbase application type, the application, the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether you want to enter a caption for a component in a business rule or template.

3 Right-click the rule or template containing the component you want to add a caption to, and select Open.

4 From the Rule or Template designer, select Tools, Quick Edit to turn on Quick Edit, if it is not already selected.

5 From New Objects, drag a component icon and drop it into the flow chart.

6 In the field that is displayed below the component in the flow chart, enter the caption.

7 Select File, Save.

Opening a Formula Component

You can open a formula component from the System View or from within the Rule or Template Designer flow chart.

To open a formula component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Formulas. Do one of these tasks:

- Right-click the formula you want to open, and select **Open**.
- Select the formula you want to open, and select **File, Open**.
- Double-click the formula you want to open.

**Note:** If the formula component is used in a business rule, you can also open it from within the rule's flow chart in the Rule Designer by right-clicking the formula component and selecting Open or by double-clicking it.

### Editing a Formula Component

You can edit the statements that comprise a formula component, whether the results of calculating the formula component should be included in the log file (for Financial Management applications only), and the formula component's comments, caption, name, and description.

To edit a formula component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Formulas.
3. Select the formula component you want to edit.
4. Do one of these tasks:
   - Select **File, Open**.
   - Right-click the formula, and select **Open**.
5. In the **Component Designer**, you can edit any of these properties of a formula component. (See “Designing a Formula Component” on page 317 and “Using the Condition Builder to Create Conditional Statements” on page 320.)
   - The caption
   - The condition statements
   - The formula statements
   - The name
   - The description
   - The comments
   - Financial Management users only: the log and timer options
   - Templates users only: the design time prompts you use to create conditions in the formula component
Select File, Save.

Deleting a Formula Component

You can delete a formula component only if it is not being used in any rules or templates. To see if any rules or templates are using the formula component, you can show its usages. (See “Showing the Usages of Formula and Script Components” on page 359.) If a formula component is used in a rule or template, and you no longer need to use it in that rule or template, you can remove it from the rule or template, and then delete the formula component. You can also delete the rule or template, which deletes the formula component within it.

To delete a formula component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Formulas.

3. Right-click the formula you want to delete and select Show Usages to make sure no rules or templates are using the formula component. If any are, you must remove the formula component from them. See “Removing a Component from a Flow Chart” on page 360.

4. Right-click the formula you want to delete, and select Delete.

5. Confirm deletion of the formula.

Copying and Pasting a Formula Component

You can copy a formula component from a rule or template and paste it into the same, or a different, rule or template. You can also copy the contents of the grid within a formula component and paste it into the same, or a different, formula component. You cannot copy a formula component and paste it into another formula component or another component type.

To copy and paste a formula component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates.

3. Right-click the rule or template that contains the formula component you want to copy, and select Open.

4. In the Rule Designer or Template Designer flow chart, right-click the formula component you want to copy, and select Copy.
Note: If the component you want to copy is shared, you can use Edit, Copy Reference to copy the reference to the shared component instead of copying the component itself. (See “Copying and Pasting the Reference to a Business Rule Component” on page 257.)

5 Do one of these tasks:
   - If you want to paste the formula component into the same business rule or template flow chart, right-click in the location of the flow chart into which you want to paste the formula component, and select Paste.
   - If you want to paste the formula component into a different business rule or template flow chart, open the business rule or template into which you want to paste the component, right-click in the location of the flow chart into which you want to paste the formula component, and select Paste.

6 Select File, Save.

Working with Script Components

See these topics:
   - “Creating a Script Component” on page 327
   - “Designing a Script Component” on page 328
   - “Opening a Script Component” on page 330
   - “Editing a Script Component” on page 330
   - “Copying and Pasting a Script Component” on page 332
   - “Deleting a Script Component” on page 331

Creating a Script Component

You can create a script component from the System View. Script components can be used in business rules and templates.

To create a script component:

1 Enter the script's name.

2 Enter the Application Type (Financial Management, Planning, or Essbase).

3 Enter the Application Name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application.

4 Do one of these tasks:
   a. If you selected Financial Management, select the Calculation Type.
   b. If you selected Planning, select the Plan Type.
   c. If you selected Essbase, select the Database.
Note: If you right-click Scripts, and select New to create a new script, the New Script dialog is populated with the application type, the application, and the calculation type (for Financial Management scripts), the plan type (for Planning scripts), or the database (for Essbase scripts) you are working in within the System View.

5 Click OK.

The script is displayed in the Component Designer. To design the script, see “Designing a Script Component” on page 328.

Designing a Script Component

Script components can be used in business rules and templates. You create a script component from the System View. You can also create a script component from within the Rule or Template Designer while you are designing a business rule or template.

To design a script component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 Do one of these tasks:
   - Select File, New, Script Component.
   - Expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type, plan type, or database.

3 Right-click Scripts, and select New.

   Note: You can also create a script component from within a business rule or template. See “Designing a Business Rule” on page 243 and “Designing a Custom Defined Template” on page 299.

4 Enter a name, application type, and application for the script. Then do one of the following tasks:
   - Financial Management users only: If you are creating a Financial Management script, enter the calculation type.
   - Planning users only: If you are creating a Planning script, enter the plan type.
   - Essbase users only: If you are creating an Essbase script, enter the database.

5 Click OK.

6 In the Component Designer, use the icons to design the script component. Financial Management scripts must be in Visual Basic; Planning and Essbase scripts must be in Essbase.

   Note: Unlike rules, templates, and other components, when you open a script, you cannot view it in a graphical format (as a flow chart). You can only view it in script format.

   - Click the Insert a function and its parameters icon to insert a function. (See “Working with Functions” on page 400.)
Click the **Insert members selected from a dimension** icon to insert a member. (See “Working with Members” on page 366.)

Click the **Insert a variable** icon to insert a variable. (See “Working with Variables” on page 385.)

**Note:** Visual Basic scripts must be self-contained. You cannot reference replacement or execution variables defined for a ruleset in the script. If you need to use a variable in a script, you must declare it within the script component.

Planning users only: Click **Insert smartlists** to insert a smartlist.

Click the **Find** icon to find a text string in the script. See “Searching for and Replacing a Text String in a Business Rule Script” on page 254.

Click the **Find and Replace** icon to find and replace a text string in the script. See “Searching for and Replacing a Text String in a Business Rule Script” on page 254.

7 On **Properties**, complete these steps:

a. When you create a script component, **Shared** is not selectable. When you drag the script component and drop it into the flow chart of a rule or template, **Shared** is selected by default. To create a copy of the script component within the rule or template instead, clear **Shared**.

b. **Optional:** edit the script's name by entering a new one of up to 50 characters. (The name defaults from the New Script dialog.)

c. Enter a description of up to 255 characters for the script.

d. Enter a caption for the script. The caption is displayed below the script in the **Rule Designer** and **Template Designer** flow charts.

e. Enter comments for the script. For example, you may want to tell users what the script should be used for.

8 **Financial Management users creating a script component for a business rule only:** Select **Enable Logging** so, if the script has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with the business rule's formula statements.

**Note:** If logging is not enabled for a ruleset, but is enabled for a rule and component that belong to the ruleset, no log file is created because the log setting for the ruleset overrides the settings for the rule and component.

9 **Financial Management users only:** Select **Enable Timer** so the time taken to process the script is recorded in the log file when the rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three scripts whose timers are enabled, the time taken to process the rule, and each script in the rule, is recorded.

10 **Financial Management users only:** Select **Embedded** to embed the contents of the script component inside any rules using it when generating the Visual Basic script.

11 **Financial Management users only:** In **Parameters**, enter script parameters.
On Script, enter a caption for the script component.

Users creating a script component for a template only: Select Use Design Prompt if you want to use a design time prompt in the script component. Then in the condition grid, define a condition for the design time prompt by performing these tasks:

a. In DTP, select a design time prompt.
b. In Operator, select an operator: = = or <>.
c. In Value, enter or select a value for the design time prompt.
d. Repeat these steps to create as many statements in the condition as you need.

Tip: Click the plus (+) and minus (-) icons to add and delete rows from the

Users creating a script component for a business rule only: On Usages, you can view the rules that use the script component.

Note: You cannot edit any of the information on this tab.

Select File, Save.

Opening a Script Component

You can open a script component from the System View. You can also open a script component from within a flow chart of the Rule or Template Designer as you are designing a business rule or template.

To open a script component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Scripts. Do one of these tasks:
   - Right-click the script you want to open, and select Open.
   - Select the script you want to open, and select File, Open.

Note: If the script component is used in a business rule, you can also open it from within the rule’s flow chart in the Rule Designer by right-clicking the script component and selecting Open or by double-clicking it.

Editing a Script Component

You can edit the functions, variables, and members you use to write the script component, whether the results of calculating any formula statements in the script component are included in the log file (for Financial Management applications only), and the script component's comments, caption, name, and description.
To edit a script component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Scripts.

3. Select the script component you want to edit.

4. Do one of these tasks:
   - Select File, Open.
   - Right-click the script, and select Open.

5. In the Component Designer, you can edit any of these properties of a script component. (See “Designing a Script Component ” on page 328.)

   Note: Unlike rules, templates, and other components, when you open a script, you cannot view it in a graphical format (as a flow chart). You can only view it in script format.

   - The functions, members, and variables that you include in the script
   - The name
   - The description
   - The caption
   - The comments
   - Financial Management users only: The log and timer options

6. Select File, Save.

### Deleting a Script Component

You can delete a script component only if it is not being used in any rules or templates. To see if any rules or templates are using the script component, you can show its usages. (See “Showing the Usages of Formula and Script Components ” on page 359.) If a script component is used in a rule or template, and you no longer need to use it in that rule or template, you can remove it from the rule or template, and then delete the script component. You can also delete the rule or template, which deletes the script component within it.

To delete a script component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Scripts.
3   Right-click the script and select **Show Usages** to make sure no rules or templates are using the script component. If any are, you must remove the script component from them. See “Removing a Component from a Flow Chart” on page 360.

4   Right-click the script you want to delete, and select **Delete**.

5   Confirm deletion of the script component.

## Copying and Pasting a Script Component

You can copy a script component from a rule or template and paste it into the same, or a different, rule or template. You can also copy the script within a script component and paste it into the same, or a different, script component. You cannot copy a script component and paste it into another script component or another component type.

To copy and paste a script component from the System View:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and **Rules** or **Templates**.

3. Select the rule or template that contains the script component you want to copy.

4. In the **Rule Designer** or **Template Designer** flow chart, right-click the script component, and select **Copy**.

   **Note:** If the component you want to copy is shared, you can use **Edit**, **Copy Reference** to copy the reference to the shared component instead of copying the component itself. (See “Copying and Pasting the Reference to a Business Rule Component” on page 257.)

5. Do one of these tasks:
   - If you want to paste the script component into the **same** business rule or template, right-click the location in the flow chart where you want to paste it, and select **Paste**.
   - If you want to paste the script component into a **different** business rule or template, open the business rule or template into which you want to paste the script component, right-click the location in the flow chart where you want to paste it, and select **Paste**.

6. Select **File**, **Save**.

## Working with Condition Components

See these topics:

- “About Condition Components” on page 333
- “Creating a Condition Component” on page 333
About Condition Components

A condition component is comprised of conditional statements (that is, IF...THEN statements) that are either true or false. If the condition is true, Calculation Manager performs the actions you specify; if the condition is false, Calculation Manager performs other actions you specify. The condition can be a metadata condition or a data condition. Condition components cannot be shared.

Creating a Condition Component

You create condition components from within business rules or templates. Unlike script and formula components, condition components cannot be created as independent objects. They are linked to the business rule or template for which they are created. They cannot be shared.

To create a condition component:
1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether you want to create the condition in a rule or template:
   - If you want to create it in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If you want to create it in a template, expand Templates, right click the template you want to open, and select Open.
3 After you determine where in the flow chart you want to create the condition, from the New Objects Palette, drag the Condition component and drop it into that location in the flow chart.
   The Condition object is displayed as a diamond with a question mark in the flow chart.
4 On Condition, enter a caption to identify the condition component. The caption is displayed above the component in the flow chart of any rule or template that uses the condition.
5 Users creating a condition component for a template only: Select Use Design Prompt if you want to use a design time prompt in the condition component. Then in the condition grid, define a condition for the design time prompt by performing these tasks:
   a. In DTP, select a design time prompt.
   b. In Operator, select an operator: = = or <>.
c. In **Value**, enter or select a value for the design time prompt.

d. Repeat these steps to create as many statements in the condition as you need.

**Tip:** Click the plus (+) and minus (-) icons to add and delete rows from the

**Note:** If you use a design time prompt to define the condition, you cannot enter a condition in, or use the Condition Builder to build a condition for, the Condition box.

6 **Financial Management users only:** Select **Enable Timer** so the time taken to process the condition component is recorded in the log file when the business rule is launched. You can enable the timer for rules, rule sets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three condition components whose timers are enabled, the time taken to process the rule, and each condition component in the rule, is recorded.

7 **Planning and Essbase users only:** If you want to create a member block, click the **Ellipsis** icon, and select a member or function. By default, Calculation Manager starts processing a condition component calculation with the first member you enter in the grid. If you want Calculation Manager to start processing with another member, enter the member or function name in **Member Block**, or click the **Ellipsis** icon to pick one from the Member Selector. See “About Adding Members and Functions to a Component” on page 366.

8 Do one of these tasks:
   - Enter the condition statements in the Condition field.
   - Click **Add/Edit Condition** to use the Condition Builder to create the condition statements. See “Using the Condition Builder to Create Conditional Statements” on page 320 and complete step 5 through step 14 on page 322.

9 Enter comments for the condition component.

10 Select **File, Save**.

**Opening a Condition Component**

You open a condition component from within the flow chart of the business rule or template to which it belongs. Unlike formula and script components, you cannot open it from the System View.

To open a condition component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the condition is in a rule or template:
   - If the condition is in a rule, expand **Rules**, right click the rule you want to open, and select **Open**.
If the condition is in a template, expand Templates, right click the template you want to open, and select Open.

3 When the rule or template opens, select the condition component in the flow chart to see the condition properties.

Editing a Condition Component

You can edit what functions, variables, and members you use to create the condition component, whether the time taken to process the condition component is recorded in the log file (for Financial Management applications only), and the condition component’s comments and caption.

To edit a condition component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the condition is in a rule or template:
   - If the condition is in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If the condition is in a template, expand Templates, right click the template you want to open, and select Open.

3 In the Rule Designer or Template Designer, select the condition to edit its properties in Condition. You can edit any of these properties. (See “Creating a Condition Component” on page 333.)
   - The caption
   - The condition statements
   - The design time prompts (if the condition is a component of a template)
   - The comments
   - Financial Management users only: The log and timer options

4 Select File, Save.

Deleting a Condition Component

You delete a condition component by removing it from the business rule or template to which it belongs. Since a condition component can be used in only one business rule or template, you delete it simply by removing it from the business rule or template.

To delete a condition component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the condition is a component of a rule or template:

- If the condition is in a rule, expand **Rules**, right click the rule you want to open, and select **Open**.
- If the condition is in a template, expand **Templates**, right click the template you want to open, and select **Open**.

3 In the **Rule Designer** or **Template Designer**, select the condition component you want to delete in the flow chart.

4 Right-click the condition and select **Remove**.

5 Confirm deletion of the component.

6 Select **File, Save**.

### Copying and Pasting a Condition Component

You can copy a condition component from a rule or template and paste it into the same, or a different, rule or template. You cannot copy a condition component and paste it into another condition component or another component type.

To copy and paste a condition component from the Rule Designer or Template Designer:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the condition is a component of a rule or template:

- If the condition is in a rule, expand **Rules**, right click the rule you want to open, and select **Open**.
- If the condition is in a template, expand **Templates**, right click the template you want to open, and select **Open**.

3 In the **Rule Designer** or **Template Designer** flow chart, right-click the condition component you want to copy, and select **Copy**.

**Note:** You can also copy a component by selecting **Edit, Copy**.

4 Do one of these tasks:

- If you want to paste the condition component into the **same** business rule or template, right-click the location in the flow chart where you want to paste the condition component, and select **Paste**.
- If you want to paste the condition component into a **different** business rule or template, open the business rule or template into which you want to paste the component, right-
Working with Member Range Components

See these topics:

- “About Member Range Components” on page 337
- “Creating a Member Range Component” on page 337
- “Opening a Member Range Component” on page 339
- “Editing a Member Range Component” on page 339
- “Deleting a Member Range Component” on page 340
- “Copying and Pasting a Member Range Component” on page 341

About Member Range Components

A member range component is a type of loop comprised of a range of members from Financial Management, Planning, or Essbase dimensions. Member range components cannot be shared, so you need to create a new member range component each time you add one to a business rule or template.

Creating a Member Range Component

You create a member range component from within the Rule or Template designer as you are designing a rule or template. Unlike script and formula components that exist independently of the business rules and templates they are used in, you cannot create a member range component from the System View. Member range components are always linked to the business rules and templates to which they belong and cannot be shared.

To create a member range component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these, depending on whether you want to create a member range in a rule or a template:
   - If you want to create it in a rule, expand Rules, right click the rule you want to create it in, and select Open.
   - If you want to create it in a template, expand Templates, right click the template you want to create it in, and select Open.
After you determine where in the flow chart you want to create the member range, from New Objects, drag the Member Range object and drop it into the flow chart.

The Member Range object is displayed as two circles with a connecting line in the flow chart.

Optional: If you are creating a member range component for a template, create design time prompts for it. See “Creating Design Time Prompts for a Custom Defined Template” on page 301.

Optional: Enter a caption to identify the member range component. The caption is displayed below the component in the flow chart of the rule or template to which it belongs.

Financial Management users only: Select Enable Timer to record the time it takes to process the member range component in the log file when the business rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three member range components whose timers are enabled, the time taken to process the rule, and each member range component in the rule, is recorded.

Planning and Essbase users only: Select Is Exclude to exclude the members you select from calculation.

If you are creating a member range component for a template and want to use a design time prompt, select Use Design Prompt. Then select a prompt from the list. See “Selecting Design Time Prompts for a Custom Defined Template” on page 305.

If you are creating a member range component for a business rule, perform one of these actions:

- Select Use Variable if you want to use a variable, instead of members, to define the member range. Then enter or select a variable. See “Working with Variables” on page 385.

  Note: If you select this option, you cannot define a member range for any dimensions.

- Planning and Essbase users only:
  a. Enter members in the Value column for each dimension you want to define a member range for, or click in each row to display the Actions icon.

    Tip: Rather than selecting members for each dimension, one row at a time, you can click the Member Selector icon to select members for all dimensions in the grid. When you click OK in the Member Selector, the members you selected are displayed for each dimension in the grid for which you selected members.

  b. Click the Actions icon, and select one of these options to define the member range:

    - Variable (See “Working with Variables” on page 385.)
    - Member (See “Working with Members” on page 366.)
    - Function (See “Working with Functions” on page 400.)

- Financial Management users only:
  a. Click in the first row under the Dimension column, and select a dimension.

  b. Enter members in the Value column, or click in the row to display the Actions icon. Click the Actions icon, and select one of these options to define the member range:

    - Variable (See “Working with Variables” on page 385.)
- Member (See “Working with Members” on page 366.)
- Function (See “Working with Functions” on page 400.)

c. Enter a launch variable in the Variable column, or click in the row to display the Actions icon. Click Actions, and select a launch variable. See “Working with Variables” on page 385.

d. Click the Comments icon to enter comments for the member range you define for a dimension.

e. Repeat these steps for each dimension for which you want to define a member range.

10 Select File, Save.

Opening a Member Range Component

You can open a member range component by opening it from the flow chart of the business rule or template in which it is used. Unlike formula and script components, you cannot open it from the System View.

To open a member range component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the member range is in a rule or template:
   - If the member range is in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If the member range is in a template, expand Templates, right click the template you want to open, and select Open.

3 When the rule or template opens, select the member range component in the flow chart to see the member range properties.

Editing a Member Range Component

You can edit the dimensions and members, or the variables, you use to define the member range component, whether the time taken to process the member range component is recorded in the log file (for Financial Management applications only), and the member range component's comments and caption.

To edit a member range component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these, depending on whether the member range is in a rule or template:

- If the member range is in a rule, expand Rules, right click the rule you want to open, and select Open.
- If the member range is in a template, expand Templates, right click the template you want to open, and select Open.

3 In the Rule Designer or Template Designer, select the member range to edit its properties on Member Range. You can edit any of these properties of a member range. (See “Creating a Member Range Component” on page 337.)

- The caption
- The variables you select to define the member range
- The dimensions you include in the member range
- The members that define the member range for each dimension
- Financial Management users only: Whether the time it takes to process the component is included in the log file
- The comments for any dimensions for which you define a member range

4 Select File, Save.

Deleting a Member Range Component

You delete a member range component by removing it from the business rule or template to which it belongs. Since a member range component can be used in only one business rule or template, you delete it simply by removing it from the business rule or template.

To delete a member range component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the member range is in a rule or template:

- If the member range is in a rule, expand Rules, right click the rule you want to open, and select Open.
- If the member range is in a template, expand Templates, right click the template you want to open, and select Open.

3 In the Rule Designer or Template Designer, select the member range component you want to delete in the flow chart.

4 Right-click the member range, and select Remove.
Confirm deletion of the component.

Copying and Pasting a Member Range Component

You can copy a member range component from a rule or template and paste it into the same, or a different, rule or template. You cannot copy a member range component and paste it into another member range component or another component type.

To copy a member range component from the Rule Designer or Template Designer:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the member range is in a rule or template:
   - If the member range is in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If the member range is in a template, expand Templates, right click the template you want to open, and select Open.

3. In the Rule Designer or Template Designer, select the member range component you want to copy in the flow chart.

4. Select Edit, Copy.

5. Do one of these tasks:
   - If you want to paste the member range component into the same business rule or template, right-click the location in the flow chart where you want to paste it, and select Paste.
   - If you want to paste the member range component into a different business rule or template, open the business rule or template into which you want to paste the component, right-click the location in the flow chart where you want to paste it, and select Paste.

6. Select File, Save.

Working with Data Range Components (Financial Management Users Only)

See these topics:

- “About Data Range Components (Financial Management Users Only)” on page 342
- “Creating a Data Range Component (Financial Management Users Only)” on page 342
- “Opening a Data Range Component (Financial Management Users Only)” on page 344
About Data Range Components (Financial Management Users Only)

A data range component is a type of loop comprised of a range of data values from Financial Management applications. Data range components cannot be shared, so you need to create a new one each time you want to add one to a business rule or template.

Creating a Data Range Component (Financial Management Users Only)

You create a data range component from within the Rule or Template designer as you are designing a Financial Management business rule or template. Unlike a script or formula component, a data range component exists only as a component of the business rule or template to which it belongs. A data range component cannot be shared.

Note: You can create a data range within a Financial Management business rule or template only.

To create a data range component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether you want to create a data range for a rule or a template:
   - If you want to create a data range in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If you want to create a data range in a template, expand Templates, right click the template you want to open, and select Open.

3. After you determine where in the flow chart you want to create the data range, from New Objects, drag the Data Range object, and drop it into the flow chart.

   The data range object is displayed as two circles with a connecting line in the flow chart.

4. Optional: if you are creating a data range component for a template, enter design time prompts for it. See “Creating Design Time Prompts for a Custom Defined Template” on page 301.
Enter a caption to identify the data range component. The caption is displayed below the component in the flow chart of the rule or template to which it belongs.

Select Enable Timer to record the time it takes to process the data range component in the log file when the business rule or template is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three member range components whose timers are enabled, the time taken to process the rule, and each member range component in the rule, is recorded.

Do one of these tasks:

- **If you are creating the data range for a business rule and want to use a variable to define the data range:** select Use Variable, and enter or select a variable. See “Working with Variables” on page 385.

  **Note:** If you select this option, you cannot define a data range for the dimensions in the grid.

- **If you are creating the data range for a template and want to use a design prompt to define the data range:** select Use Design Prompt, and enter or select a design prompt.

  **Note:** If you select this option, you cannot define a data range for the dimensions in the grid.

- **If you are creating the data range for either a business rule or a template and want to use variables, members, and functions to define the data range:**

  a. For the first dimension for which you want to define a data range, enter members in the Value column, or click in the row to display the Actions icon.

  b. Click the Actions icon, and select one of these options to define the data range:

     - Variable (See “Working with Variables” on page 385.)
     - Member (See “Working with Members” on page 366.)
     - Function (See “Working with Functions” on page 400.)

  c. Enter a launch variable in the Variable column, or click in the row to display the Actions icon. Click the Actions icon, and select Variable to select a launch variable. See “Working with Variables” on page 385.

    **Note:** You cannot include a launch variable for the Scenario, Year, Period, Entity, or Value dimensions.

  d. Click the Comments icon to enter comments for the data range you define for a dimension.

  e. Repeat these steps for each dimension for which you want to define a data range.

Select File, Save.
Opening a Data Range Component (Financial Management Users Only)

You open a data range component by opening it from the flow chart of the business rule or template in which it is used. Unlike formula and script components, you cannot open it from the System View.

To open a data range component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the data range is in a rule or template:
   - If the data range is in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If the data range is in a template, expand Templates, right click the template you want to open, and select Open.

3. When the rule or template opens, select the data range component in the flow chart to see the data range properties.

Editing a Data Range Component (Financial Management Users Only)

You can edit the dimensions and members, the variables, or the design time prompts you use to define the data range component, whether the time taken to process the data range component is recorded in the log file, and the data range component’s comments and caption.

To edit a data range component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether you want to edit a data range for a rule or a template:
   - If you want to edit a data range in a rule, expand Rules, right-click the rule you want to open, and select Open.
   - If you want to edit a data range in a template, expand Templates, right-click the template you want to open, and select Open.
In the **Rule Designer** or **Template Designer**, select the data range in the flow chart to edit its properties on **Data Range**. You can edit any of these properties. (See “Creating a Data Range Component (Financial Management Users Only)” on page 342.)

- The caption
- The design prompt you select to define the data range (if you are creating the data range for a template)
- The variables you select to define the data range (if you are creating the data range for a business rule)
- The dimensions you include in the data range
- The members that define the data range for each dimension
- Whether the time it takes to process the data range is included in the log file
- The comments for any dimensions for which you define a data range

Select **File, Save**.

---

### Deleting a Data Range Component (Financial Management Users Only)

You delete a data range component by removing it from the business rule or template to which it belongs. Since a data range component can be used in only one business rule or template, you delete it simply by removing it from the business rule or template.

To delete a data range component:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. **In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase).** Then do one of these tasks, depending on whether you want to delete a data range for a rule or a template:
   - If you want to delete a data range in a rule, expand **Rules**, right click the rule you want to open, and select **Open**.
   - If you want to delete a data range in a template, expand **Templates**, right click the template you want to open, and select **Open**.

3. **In the Rule Designer or Template Designer**, select the data range component in the flow chart.

4. Right-click the data range, and select **Remove**.

5. Confirm deletion of the component.

6. Select **File, Save**.
Copying and Pasting a Data Range Component (Financial Management Users Only)

You can copy a data range component from a rule or template and paste it into the same, or a different, rule or template. You cannot copy a data range component and paste it into another data range component or another component type.

To copy and paste a data range component from the Rule Designer or Template Designer:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether you want to copy a data range in a rule or a template:
   - If you want to copy a data range in a rule, expand Rules, right click the rule you want to open, and select Open.
   - If you want to copy a data range in a template, expand Templates, right click the template you want to open, and select Open.

3. In the Rule Designer or Template Designer, right-click the data range component you want to copy in the flow chart, and select Copy.

4. Do one of these tasks:
   - If you want to paste the data range component into the same business rule or template, right-click the location in the flow chart where you want to paste it, and select Paste.
   - If you want to paste the data range component into a different business rule or template, open the business rule or template into which you want to paste the data-range component, right-click the location in the flow chart where you want to paste the data range component, and select Paste.

5. Select File, Save.

Working with Fixed Loop Components

See these topics:

- “About Fixed Loop Components” on page 347
- “Creating a Fixed Loop Component” on page 347
- “Opening a Fixed Loop Component” on page 348
- “Editing a Fixed Loop Component” on page 348
- “Deleting a Fixed Loop Component” on page 349
- “Copying and Pasting a Fixed Loop Component” on page 350
About Fixed Loop Components

A fixed loop component is an object that cycles through a list of metadata members or data records (for Financial Management applications only) a fixed number of times. For example, you can create a fixed loop that loops through a list of accounts 10 times.

Creating a Fixed Loop Component

You create a Fixed Loop component in a business rule or template by dragging its icon and dropping it into the Rule Designer or Template Designer flow chart. A Fixed Loop component exists only within the business rule or template for which you create it. Fixed Loop components cannot be shared across business rules or templates.

To create a fixed loop component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether you want to create the component for a business rule or template.

3. Open the rule or template into which you want to insert a fixed loop component.

4. After you determine where in the flow chart you want to create the fixed loop, from New Objects, drag the Fixed Loop object and drop it into the flow chart.

   The fixed loop is displayed as two circles connected by a dotted line.

5. **Optional:** If you are creating a fixed loop component for a template, enter design time prompts for it. See “Creating Design Time Prompts for a Custom Defined Template” on page 301.

6. **Optional:** Enter a caption to identify the fixed loop component. The caption is displayed below the fixed loop component in the flow chart of the rule or template to which it belongs.

7. **Financial Management Users Only:** Select Enable Timer if you want the time it takes to process the fixed loop to be included in the log file when the business rule is launched. You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled and the rule contains three fixed loops whose timers are enabled, the time taken to process the rule, and each fixed loop in the ruleset, is recorded.

8. **Planning and Essbase users only:** Do these tasks:
   a. In Value, enter the number of times you want the loop to cycle through the metadata or data.
   b. In Break Variable, enter a variable, or click in the Break Variable field to display the Insert a variable icon.
   c. Click Insert a variable to choose or create a numeric variable for exiting the fixed loop. The value of the break variable must be one. See “Working with Variables” on page 385.
Financial Management Users Only: Do these tasks:

a. In Value, enter the number of times you want the loop to cycle through the metadata or data, or click in the field to display the Actions icon.

b. Click the Actions icon, and select Variable or Function to access dialogs from which you can select variables or functions. See “Working with Variables” on page 385 and “Working with Functions” on page 400.

c. In Variable, enter a variable, or click in the field to display the Insert a Variable icon.

d. Click the Insert a Variable icon to access a dialog from which you can select or create a new variable. See “Working with Variables” on page 385.

Select File, Save.

Opening a Fixed Loop Component

You open a fixed loop component from the flow chart of the business rule or template to which it belongs. Unlike formula and script components, you cannot open it from the System View.

To open a fixed loop component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase). Then do one of these tasks, depending on whether the fixed loop is in a rule or template:

   • If the fixed loop is in a rule, expand Rules, right click the rule you want to open, and select Open.

   • If the fixed loop is in a template, expand Templates, right click the template you want to open, and select Open.

3. When the rule or template opens, select the fixed loop component in the flow chart to see the fixed loop properties.

Editing a Fixed Loop Component

You can edit the value you assign to a fixed loop component and the variable you select for it. If you are creating a fixed loop for a business rule, you can also edit the caption. If you are creating a fixed loop for a Financial Management business rule, you can edit whether the time taken to process the fixed loop is recorded in the log file. If you are creating a fixed loop for a Planning or Essbase business rule, you can edit the break variable. A break variable specifies when to exit the fixed loop.
To edit a fixed loop component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component is part of a business rule or template.

3. Open the rule or template that contains the fixed loop component you want to edit.

4. In the Rule Designer or Template Designer, select the fixed loop in the flow chart to edit its properties in Fixed Loop. You can edit any of these properties. (See “Creating a Fixed Loop Component” on page 347.)

   - For fixed loop components in Financial Management, Planning, and Essbase business rules and templates: the value you give to the fixed loop and the variable you select for it
   - For fixed loop components in Financial Management, Planning, and Essbase business rules: the caption
   - For fixed loop components in Planning and Essbase business rules: the break variable
   - For fixed loop components in Financial Management business rules: whether the time taken to process the fixed loop is recorded in the log file

5. Select File, Save.

Deleting a Fixed Loop Component

You delete a fixed loop component by removing it from the business rule or template to which it belongs. Since a fixed loop component can be used in only one business rule or template, you delete it simply by removing it from the business rule or template.

To delete a fixed loop component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the fixed loop component is in a business rule or template.

3. Open the rule or template that contains the fixed loop component you want to delete.

4. In the Rule Designer or Template Designer, select the fixed loop component you want to delete in the flow chart.

5. Right-click the fixed loop component, and select Remove.

6. Confirm deletion of the component.
Copying and Pasting a Fixed Loop Component

You can copy a fixed loop component from a rule or template and paste it into the same, or a different, rule or template. You cannot copy a fixed loop component and paste it into another fixed loop component or another component type.

To copy and paste a fixed loop component from the Rule Designer or Template Designer:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the fixed loop component is in a business rule or template.

3. Open the rule or template that contains the fixed loop component you want to copy.

4. In the Rule Designer or Template Designer, right-click the fixed loop component you want to copy in the flow chart, and select Copy.

5. Do one of these tasks:
   - If you want to paste the fixed loop component into the same business rule or template, right-click the location where you want to paste it in the flow chart, and select Paste.
   - If you want to paste the fixed loop component into a different business rule, open the business rule into which you want to paste the component, right-click the location in the flow chart where you want to paste the fixed loop component, and select Paste.

6. Select File, Save.

Working with DTP Assignment Components (Custom-Defined Templates Users Only)

See these topics:

- “About DTP Assignment Components (Custom-Defined Templates Users Only)” on page 351
- “Creating DTP Assignment Components (Custom-Defined Templates Users Only)” on page 351
- “Opening DTP Assignment Components (Custom-Defined Templates Users Only)” on page 352
- “Editing DTP Assignment Components (Custom-Defined Templates Users Only)” on page 353
- “Deleting DTP Assignment Components (Custom-Defined Templates Users Only)” on page 353
- “Copying and Pasting DTP Assignment Components (Custom-Defined Templates Users Only)” on page 354
About DTP Assignment Components (Custom-Defined Templates Users Only)

You can assign a value to a design time prompt in a custom-defined template using the DTP Assignment component. By placing this component inside a condition component in the template flow chart, you can assign a value to a design time prompt based on conditions that you define. Using the DTP Assignment component in this way reduces the complexity of the template’s flow chart and makes the logic of the template easier to develop and maintain.

Note: You can use the DTP Assignment component only in a custom-defined template; you cannot use it in a business rule.

Creating DTP Assignment Components (Custom-Defined Templates Users Only)

You create a DTP Assignment component in a template by dragging its icon and dropping it into the Template Designer flow chart. A DTP Assignment component exists only within the template for which you create it. DTP Assignment components cannot be shared across templates.

To create a DTP Assignment component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Open the template into which you want to insert a DTP Assignment component.

4. After you determine where in the flow chart you want to create the DTP Assignment component, from New Objects, drag the DTP Assignment object and drop it into the flow chart.

   The DTP Assignment component is displayed as a square with a fraction in it, like the Formula component.

5. Optional: Enter design time prompts for the component. See “Creating Design Time Prompts for a Custom Defined Template” on page 301.

6. On Properties, do any or all of these tasks.
   
   • Optional: enter a name of up to 50 characters.
   
   • Optional: enter a description of up to 255 characters.
   
   • Optional: enter a caption. The caption displays below the DTP Assignment component’s icon in the flow chart.
   
   • Optional: enter comments.

7. Financial Management Users Only: Select Enable Timer if you want the time it takes to process the DTP Assignment to be included in the log file when the business rule containing the template is launched.
You can enable the timer for rules, rulesets, and components. The process time is included in the log file for every object whose timer is enabled. For example, if you have a rule whose timer is enabled, the rule contains a custom-defined template whose timer is enabled, and the template contains three DTP Assignment components whose timers are enabled, the time taken to process the rule, the custom-defined template, and each DTP Assignment in the template, is recorded.

8 **Financial Management Users Only:** Select Enable Logging so, if the business rule containing the template has log text, it is included in the log file when the rule is launched. You can enable logging for rules, rulesets, and components. However, you specify what log text to include, if any, with a template's formula statements.

9 On **Formula**, define conditions for the template's design time prompts.
   a. From the dropdown to the left of the equal sign, select the design time prompt for which you want to define a value.

   **Note:** If there are no design time prompts in the dropdown, none were created for the template with which you are working.

   b. In the text box to the right of the equal sign, enter a value, or click in the box to display the **Actions** icon.
      * To enter variables, select **Variable**. See “Working with Variables” on page 385.
      * To enter members, select **Member**. See “Working with Members” on page 366.
      * To enter functions, select **Function**. See “Working with Functions” on page 400.

   c. Repeat these steps until you assign values for as many of the design time prompts as you want.

   **Tip:** To add rows so you can define values for more design time prompts, click the plus (+) icon. To delete a row, click the minus (-) icon.

10 Select **File, Save**.

---

**Opening DTP Assignment Components (Custom-Defined Templates Users Only)**

You open a DTP Assignment component from the flow chart of the template to which it belongs. Unlike formula and script components, you cannot open it from the System View.

➢ To open a DTP Assignment component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase).

3 Expand **Templates**, right click the template you want to open, and select **Open**.
When the template opens, select the DTP Assignment component in the flow chart to see the DTP Assignment properties.

Editing DTP Assignment Components (Custom-Defined Templates Users Only)

You can edit a DTP Assignment component's name, description, caption, and comments. You can also edit the values you assign to the design time prompts in a template using the DTP Assignment component.

To edit a DTP Assignment component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3. Right-click the template that contains the DTP Assignment component you want to edit, and select Open.

4. In the Template Designer, select the DTP Assignment in the flow chart to edit its properties on Properties or Formula. You can edit any of these properties:
   - The name
   - The description
   - The caption
   - The comments
   - Financial Management Users Only: whether the timer is enabled
   - Financial Management Users Only: whether logging is enabled

5. Select File, Save.

Deleting DTP Assignment Components (Custom-Defined Templates Users Only)

You delete a DTP Assignment component by removing it from the template to which it belongs. Since a DTP Assignment component can be used in only one template, you delete it simply by removing it from the template.

To delete a DTP Assignment component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3 Right-click the template that contains the DTP Assignment component you want to delete, and select Open.

4 In the Template Designer, select the DTP Assignment component you want to delete in the flow chart.

5 Right-click the DTP Assignment component, and select Remove.

6 Confirm deletion of the component.

**Copying and Pasting DTP Assignment Components (Custom-Defined Templates Users Only)**

You can copy a DTP Assignment component from a template and paste it into the same, or a different, template. You cannot copy a DTP Assignment component and paste it into another DTP Assignment component or another component type.

> To copy and paste a DTP Assignment component from within the Template Designer:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Templates.

3 Right-click the template that contains the DTP Assignment component you want to copy, and select Open.

4 In the Template Designer, right-click the DTP Assignment component you want to copy in the flow chart, and select Copy.

5 Do one of these tasks:

- If you want to paste the DTP Assignment component into the same template, right-click the location where you want to paste it in the flow chart, and select Paste.

- If you want to paste the DTP Assignment component into a different template, open the template into which you want to paste the DTP Assignment component, right-click the location in the flow chart where you want to paste the DTP Assignment component, and select Paste.

6 Select File, Save.

**Sharing Script and Formula Components**

You can share formula and script components across business rules and templates that belong to same application type (Financial Management, Planning, or Essbase).
**Note:** You cannot share range, condition, or loop components.

A shared formula or script component exists only in the original rule or template in which you create the component. When you share a component, Calculation Manager creates a reference or pointer to the original component. By creating a reference to, instead of a copy of, the original component, less space is used in the database and processing time may be decreased.

**Changing Formula and Script Components from Shared to Not Shared**

Before you change a shared formula or script component to not shared, you must ensure that it is not used in more than one business rule or template. You can use the Show Usages feature to see which business rules and templates use the formula or script component. (See “Showing the Usages of Formula and Script Components” on page 359.) Then you can create copies of the shared component for each business rule and template in which it is used by clearing the Shared check box for the component from within the rules and templates.

To change a formula or script component from shared to not shared:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the shared formula or script component is in a rule or a template.

3. Right-click the rule or template, and select Open.

4. In the Rule Designer or Template Designer, do one of these tasks:
   - If you do not want to share a formula or script component you are adding to a flow chart, after you drag the formula or script component into the flow chart, clear Shared on Properties.
   - If you do not want to share a formula or script component that is already in the flow chart, select the component in the flow chart, and clear Shared on Properties.

   This creates a copy of the component in the rule or template.

5. Select File, Save.

**Changing Formula and Script Components from Not Shared to Shared**

If you want to change a formula or script component from not shared to shared, you must ensure there is not another shared or unshared formula or script component that has the same name within the same application type (Financial Management, Planning, or Essbase). Shared objects
must have unique names across applications, so you cannot create a shared object with a name that is already used.

To share a formula or script component, ensure that the Shared check box is selected on the component’s Properties tab when you drag and drop an existing component into a rule or template’s flow chart. (The Shared check box is selected by default.)

To change a formula or script component from not shared to shared:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether you want to create a shared formula or script component for a rule or a template.

3. Right-click the rule or template, and select Open.

4. When the Rule Designer or Template Designer opens, do one of these tasks:
   - If you want to share an existing formula or script component as you drag and drop it into the flow chart:
     a. In Existing Objects, expand the application, calculation or plan type, and the Formulas or Scripts folder that contains the formula or script you want to share.
     b. Drag the formula or script, and drop it into the desired location in the flow chart. By default Shared is selected on the component’s Properties tab.
   - If you want to share a formula or script component that is already in the flow chart:
     a. Select the component in the flow chart.
     b. On the component’s Properties tab, select Shared.

5. Select File, Save.

**Saving Components**

You can save a component, and save it as a template. If you are working with a formula or script component, you can save it with a different name.

See these topics:

- “Saving a Component” on page 357
- “Saving Components as a Template” on page 357
- “Saving Formula and Script Components with a Different Name” on page 357
Saving a Component

You save formula and script components after you design them in the Component Designer. You save condition, range, and fixed loop components when you save the business rule or template to which they belong in the Rule Designer or Template Designer.

To save a component, after you are finished designing it in the Component Designer, the Template Designer, or the Rule Designer, select File, Save, or click the Save icon.

Saving Components as a Template

If you want to reuse a business rule's components in other business rules, you may want to save them as a template. You save components as a template from within the Rule Designer or Template Designer flow chart.

To save components as a template:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates.
3. Open the rule or template that contains the components you want to save as a template.
4. In the flow chart of the Rule Designer or Template Designer, select the components you want to save as a template, and select Save As Template.

Note: You can save only components or a component group as a template. When you save components as a template, any children of the components are saved to the template; any business rules or templates in the flow chart are not saved to the template.

5. In Save As, click OK.

Tip: To see the new template, you may need to refresh the System View. See “Refreshing Custom Defined Templates” on page 311.

Saving Formula and Script Components with a Different Name

You can save script and formula components with a different name using Save As. Save As creates a copy of the formula or script component. You may want to create a copy of a component if it is a shared component, and you do not want it to be shared. See “Sharing Script and Formula Components” on page 354.
To save a script or formula component with a different name:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Scripts or Formulas. Do one of these tasks:
   - If you want to save a formula with a different name, right-click the formula, and select Save As.
   - If you want to save a script with a different name, right-click the script, and select Save As.

3. In Save As, enter the formula or script's new name and the application name. The application name must be a valid Performance Management Architect application, a Classic Financial Management or Planning application, or an Essbase block storage application. If the formula or script is for Financial Management, select a Calculation Type; if it is for Planning, select a Plan Type; if it is for Essbase, select a Database. Click OK.

   Note: You cannot change the application type of a formula or script you save with a different name. The new formula or script must have the same application type as the old formula or script. Also, if the formula or script is for Financial Management, you cannot change the calculation type. The calculation type of the new formula or script must be the same as the old formula or script.

After you save it, you may need to refresh the application list in the System View to see the formula or script component. See “Refreshing Formula and Script Components” on page 358.

**Refreshing Formula and Script Components**

After you create a formula or script component, you may need to refresh the application list in the System View to see it in the Formulas or Scripts folder. When you refresh the application type, application, or calculation or plan type to which a formula or script component belongs, you refresh the formula and script components by default. Refreshing formula or script components, however, does not refresh higher levels (that is, calculation or plan types, applications, or application types) in the application list.

To refresh formula or script components:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, and the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase) that contains the script or formula component.

3. Right-click Scripts or Formulas, and select Refresh.
Showing the Usages of Formula and Script Components

You can display the business rules and templates that use script and formula components. When you show the usages of a script or formula, this information is displayed:

- The names of the business rules and templates that are using the script or formula
- The calculation type, plan type, or database of the business rules and templates that are using the script or formula
- The application name of the business rules and templates that are using the script or formula
- Whether the business rules and templates that are using the script or formula are deployed
- Whether the business rules and templates that are using the script or formula are validated
- A description of the business rules and templates that are using the script or formula

To show the usages of a script or formula component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Scripts or Formulas.

3. Do one of these tasks:
   - Right-click the script whose usages you want to see, and select Show Usages.
   - Right-click the formula whose usages you want to see, and select Show Usages.

4. After you review the information, click OK.

Working with Components in a Flow Chart

You can perform actions on the components in a flow chart, including expanding and collapsing them to show or hide detail, removing them, saving them as a template, copying and pasting them, and copying and pasting component groups and component references.

See these topics:

- “Collapsing and Expanding a Component in a Flow Chart” on page 360
- “Removing a Component from a Flow Chart” on page 360
- “Copying and Pasting a Component in a Flow Chart” on page 361
- “Copying and Pasting a Reference to a Component in a Flow Chart” on page 361
- “Copying and Pasting a Component Group in a Flow Chart” on page 362
Collapsing and Expanding a Component in a Flow Chart

If you have a business rule or template that has many complex components, you may want to collapse or expand some of them in the flow chart. By collapsing and expanding components in a flow chart, you can maximize space for the display of components you want to work with while minimizing space for the display of those you do not want to work with.

To collapse a component in a flow chart:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether you want to open a business rule or template.

3. Right-click the business rule or template, and select Open.

4. In the Rule Designer or Template Designer flow chart, perform one of these actions on the components:
   - If you want to expand a component, right-click it, and select Expand.
   - If you want to collapse a component, right-click it, and select Collapse.

   **Note:** You can expand and collapse condition, range, and fixed loop components; you cannot expand and collapse formula or script components.

5. Select File, Save.

Removing a Component from a Flow Chart

Removing a condition, member range, data range, or fixed loop component from a business rule or template’s flow chart deletes the component. These components cannot be shared, so exist in only one business rule or template.

Removing formula or script components from a flow chart may or may not delete the component. If the formula or script component is not shared, when you remove the component, it is deleted. If the formula or script component is shared, it is only deleted from the business rule or template from which you remove it.

To remove a component from a flow chart:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether you want to remove a component from a business rule or template.

3. Right-click the business rule or template, and select Open.
4 In the flow chart of the Rule Designer or Template Designer, right-click the component you want to remove, and select Remove.

5 Select File, Save.

Copying and Pasting a Component in a Flow Chart

When you copy a component in a business rule or template’s flow chart, you can paste it into a different location within the same business rule or template’s flow chart, or paste it into the flow chart of a different business rule or template, if the business rule or template belongs to the same application type (that is, Financial Management, Planning, or Essbase).

To copy and paste a component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component you want to copy and paste is in a business rule or template.

3 Right-click the business rule or template, and select Open.

4 In the flow chart of the Rule Designer or Template Designer, right-click the component you want to copy, and select Copy.

Tip: You can also use Edit, Copy.

5 Do one of these tasks:
   - If you want to paste the component into the same business rule or template, right-click the location in the flow chart where you want to paste the component, and select Paste.
   - If you want to paste the component into a different business rule or template, open the business rule or template, right-click the location in the flow chart where you want to paste the component, and select Paste.

Tip: You can also use Edit, Paste.

6 Select File, Save.

Copying and Pasting a Reference to a Component in a Flow Chart

Unlike copying a component itself, copying a reference to a component copies only the pointer to the component. After you copy the reference to the component, the component itself exists only in the original location in which you created it.
When you copy a reference to a component, you can paste it into the same business rule or template, or you can paste it into a different business rule or template that belongs to the same application type (that is, Financial Management, Planning, or Essbase).

To copy and paste a reference to a component in a flow chart:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the reference to the component you want to copy and paste is in a business rule or template.

3. Right-click the business rule or template, and select Open.

4. In the Rule Designer or Template Designer, right-click the component whose reference you want to copy in the flow chart, and select Copy Reference.

   Tip: You can also use Edit, Copy Reference.

5. Do one of these tasks:
   
   - If you want to paste the component’s reference into the same business rule or template, click to the left of the location where you want to paste the reference in the flow chart.
   
   - If you want to paste the component’s reference into a different business rule or template, open the business rule or template, and click to the left of the location where you want to paste the reference in the flow chart.

6. Right-click and select Paste.

   Tip: You can also use Edit, Paste.

7. Select File, Save.

Copying and Pasting a Component Group in a Flow Chart

If a component contains other components (that is, if there are components within the component), you can copy the group of components and paste it into another location within the same flow chart or paste it into another flow chart.

To copy and paste a component group in a flow chart:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component group you want to copy and paste is in a business rule or template.

3. Right-click the business rule or template, and select Open.
4 In the Rule Designer or Template Designer, right-click the component group you want to copy in the flow chart, and select Copy Group.

**Tip:** You can also use Edit, Copy Group.

5 Do one of these tasks:

- If you want to paste the component group into the *same* business rule or template, right-click in the flow chart where you want to paste the group, and select **Paste**.

- If you want to paste the component group into a *different* business rule or template, open the business rule or template, right-click in the flow chart where you want to paste the group, and select **Paste**.

6 Select File, Save.

**Searching for a Component**

You can use the Advanced Search feature to search for a component or any other object in Calculation Manager or EPM Workspace. See the *Oracle Enterprise Performance Management Workspace Users Guide*. 
About Member Selection, Variables, and Functions

Like you use components to design business rules, you use members, variables, and functions to design components.

You use member selection in formula, script, condition, and range components to select members and functions that return a list of members (for Planning and Essbase applications) or members and member lists (for Financial Management applications). See “Working with Members” on page 366.

You use variables to build formulas for formula, loop, and condition components. There are two types of variables: execution variables, which are calculated when the business rule is launched, and replacement variables, which are substituted for more complex formulas or functions. (See “Working with Variables” on page 385.) You can create these types of variables:

- Global variables for use in all applications belonging to an application type (You can create global variables in Financial Management and Planning.)
- Application variables, for use in one application only (You can create application variables in Financial Management, Planning, and Essbase.)
- Plan type or database variables, for use in one plan type or database (You can create plan type or database variables in Planning and Essbase.)
- Rule variables, for use in one business rule only (You can create rule variables in Planning and Essbase.)

Functions are predefined formulas that you can use in loop, condition, and formula components. The functions you can use in components differ for Financial Management, Planning, and Essbase applications. (See “Working with Functions” on page 400 for descriptions of the function types available for Financial Management, Planning, and Essbase applications. See the Oracle Hyperion Financial Management Administrator’s Guide for a complete list, and
descriptions of, the functions you can use in Financial Management components. See the Oracle Essbase Technical Reference for a complete list, and descriptions of, the functions you can use in Planning and Essbase applications.) You can use functions to perform calculations like these:

- Converting date strings to numbers
- Calculating the averages value of a member across a range
- Calculating the depreciation of an asset for a time period
- Calculating the period-to-date values of members in the Time dimension

**Working with Members**

See these topics:

- “About Adding Members and Functions to a Component” on page 366
- “Adding One Member or Function from One or More Dimensions to a Component ” on page 367
- “Adding Multiple Members or Functions from One or More Dimensions to a Component ” on page 375
- “Removing Members and Functions from a Component” on page 383
- “Searching for Members” on page 383
- “Searching for Members by Name, Alias, or Property” on page 384

**About Adding Members and Functions to a Component**

You can add members to formula components, script components, condition components, and member and data range components. You can also add functions that return lists of members to formula, script, and condition components. You can select members and functions from the dimensions in the application to which the component belongs.

Depending on which component you are working with, you can select one or more members or functions from one dimension, or you can select one or more members or functions from multiple dimensions.

- These are the contexts in which you can select a single member for multiple dimensions:
  - In the formula grid of a formula component
  - In a function, where the required parameter is a single member
- These are the contexts in which you can select multiple members for multiple dimensions:
  - In defining a variable value whose type is members
- These are the contexts in which you can select multiple members for a single dimension:
  - In the global range of a Planning or Essbase business rule
  - In a template where the design time prompt type is a slice
  - In defining a variable value whose type is members
In defining a variable limit whose type is member
- In a loop component
- In any function where the parameter is members

These are the contexts in which you can select a single member for a single dimension:
- In defining a variable value whose type is member
- In any function where the parameter is member

Adding One Member or Function from One or More Dimensions to a Component

The Member Selector enables you to select members within a dimension. Expand and collapse members within a dimension using the [+ ] and [-].

The Member Selector dialog box has two panes—all members and functions in the dimension are on the Members and Functions tabs on the left; the members and functions you select are in Selections on the right. The left pane, showing all members available in the dimension, displays the member name and a short description, if available. The right pane, showing selections, displays the member name and the selection type.

To add a member from one dimension or more dimensions to a component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component is in a business rule or template.
3. Do one of these tasks:
   - Right-click the template that contains the component you want to add a member to, and select Open.
   - Right-click the business rule that contains the component you want to add a member to, and select Open.
4. When the business rule or template opens, in its flow chart, select the component to which you want to add a member.

   Note: You cannot add a member to a loop component.
5. Click the Member Selector icon.
6. In the Member Selector, from Dimensions, select a dimension.
   - The members for the dimension you select are displayed on Members, and the functions for the application you are working in are displayed on Functions.
7. Do one of these tasks:
On **Members**, select a member, and click the right arrow button to move it to the **Selections** list. You can also use the options in this table to further define the selection.

### Table 25  Member Selector Buttons

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Special</td>
<td>Select one of these to add additional members or functions related to the member or function you selected on the tab:</td>
</tr>
<tr>
<td></td>
<td>† Member</td>
</tr>
<tr>
<td></td>
<td>† Children</td>
</tr>
<tr>
<td></td>
<td>† Descendants</td>
</tr>
<tr>
<td></td>
<td>† Siblings</td>
</tr>
<tr>
<td></td>
<td>† Parent</td>
</tr>
<tr>
<td></td>
<td>† Ancestors</td>
</tr>
<tr>
<td></td>
<td>† Level 0 (Base)</td>
</tr>
<tr>
<td></td>
<td>† Inclusive</td>
</tr>
<tr>
<td>Select</td>
<td>Select to move the member or function to the Selections list.</td>
</tr>
<tr>
<td>Deselect</td>
<td>Select to remove the member or function from the Selections list.</td>
</tr>
<tr>
<td>Deselect All</td>
<td>Select to remove all members and functions from the Selections list.</td>
</tr>
<tr>
<td>Search</td>
<td>Select to search for a member or function you enter in the field. (See “Searching for Members” on page 383.)</td>
</tr>
<tr>
<td>Advanced Search</td>
<td>Select to access advanced search options. (See “Searching for Members” on page 383.)</td>
</tr>
<tr>
<td>Previous</td>
<td>Select to search for the member or function you entered before the current search.</td>
</tr>
<tr>
<td>Next</td>
<td>Select to search for the member or function you entered after the current search.</td>
</tr>
</tbody>
</table>

**Planning and Essbase users only:** On **Functions**, do these tasks:

a. Select a function, and use the right arrow button to move it to the **Selections** list. You can also use the options in the table above to further define the selection. See **Table 25**.

b. Enter the required values for the function, according to this table:

### Table 26  Planning and Essbase Functions and Values

<table>
<thead>
<tr>
<th>Function</th>
<th>Values to Enter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ALLANCESTORS</td>
<td>Member Name</td>
<td>Enter the member name or click Member to select a member.</td>
</tr>
<tr>
<td>@ANCEST</td>
<td>† Dimension Name</td>
<td>i. Enter the dimension name you selected in Dimensions.</td>
</tr>
<tr>
<td></td>
<td>† Generation Level Number</td>
<td>ii. Enter an integer value that defines the generation or level number from which the ancestor value is returned. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td></td>
<td>† Member Name</td>
<td>iii. Enter any member name or member combination.</td>
</tr>
<tr>
<td>Function</td>
<td>Values to Enter</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| @ANCESTORS | | i. Enter a member name or member combination.  
| | m Member Name | ii. Enter an integer value that defines the absolute generation or level number up to which to include members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.  
| | m Generation Level Number | iii. Enter a level name or generation name up to which to include members in the selection.  
| | m Generation Level Name | |
| @ATTRIBUTE | Attribute Member Name | For the dimension you entered, enter the attribute member name or member combination you want to include in the selection. |
| @CHILDREN | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @CURRMBR | Dimension Name | Enter the dimension name. |
| @DESCENDANTS | | i. Enter a member name or member combination.  
| | m Member Name | ii. Enter an integer value that defines the absolute generation or level number up to which to include members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.  
| | m Generation Level Number | iii. Enter a level name or generation name up to which to include members in the selection.  
| | m Generation Level Name | |
| @GENMBRS | | i. Enter a dimension name.  
| | m Dimension Name | ii. Enter a generation name from dimName. A positive integer defines a generation number. |
| | m genName | |
| @IALLANCESTORS | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @ANCESTORS | | i. Enter a member name or member combination, or a function that returns a member or member combination.  
| | m Member Name | ii. Enter an integer value that defines the absolute generation or level number up to which to include members in the selection. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.  
| | m Generation Level Number | |
| @ICHILDREN | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @DESCENDANTS | | i. Enter a member name or member combination, or a function that returns a member or member combination.  
| | m Member Name | ii. Enter an integer value that defines the absolute generation or level number up to which to include members in the selection. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.  
<p>| | m Generation Level Number | |
| @ILSIBLINGS | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |</p>
<table>
<thead>
<tr>
<th>Function</th>
<th>Values to Enter</th>
<th>Description</th>
</tr>
</thead>
</table>
| @IRDESCENDANTS | ✷ Member Name  
✦ Generation Level Number | i. Enter a member name or member combination, or a function that returns a member or member combination.  
ii. Enter an integer value that defines the absolute generation or level number up to which to include members in the selection. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number. |
| @IRSIBLINGS | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @ISIBLINGS | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @LEVMBRS | ✷ Dimension Name  
✦ Level Name | i. Enter a dimension name.  
ii. Enter a level name or an integer value that defines the number of a level. The integer value must be 0 or a positive integer. |
| @LIST | Argument | Enter a list of arguments that will be collected and treated as one argument so they can be processed by the parent function. Arguments can be member names, member combinations, member set functions, range functions, and numeric expressions. |
| @LSIBLINGS | Member Name | Enter a member name or member combination, or a function that returns a member or member combination. |
| @MATCH | ✷ Member,  
✦ Generation  
✦ genName  
✦ Pattern to Match | i. Enter the default or user-defined name of the member on which to base the selection. Calculation Manager searches the member names and alias names of the specified member and its descendants.  
ii. Enter the default or user-defined name of the generation on which to base the selection. Calculation Manager searches all member names and member alias names in the generation.  
iii. Enter the character pattern to search for, including a wildcard character ( or ?). ? substitutes one occurrence of any character. You can use ? anywhere in the pattern. * substitutes any number of characters. You can use * only at the end of the pattern. To include spaces in the character pattern, enclose the pattern in double quotation marks (“”). |
| @MEMBER | String | Enter a string (enclosed in double quotation marks) or a function that returns a string. |
| @MERGE | ✷ List 1  
✦ List 2 | i. Enter the first list of members to be merged.  
ii. Enter the second list of members to be merged. |
| @PARENT | ✷ Dimension Name  
✦ Member Name | i. Enter the dimension name.  
ii. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned. |
<table>
<thead>
<tr>
<th>Function</th>
<th>Values to Enter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@RANGE</td>
<td>Member Name, Range List</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter a member name, a comma-delimited list of member names, member set functions, or range functions. If rangeList is not specified, Calculation Manager uses the level 0 members from the dimension tagged as Time.</td>
</tr>
<tr>
<td>@RDESCENDANTS</td>
<td>Member Name, Generation Level Number</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter an integer value that defines the absolute generation or level number down to which to select the members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td>@RELATIVE</td>
<td>Member Name, Generation Level Number</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter an integer value that defines the absolute generation or level number down to which to select the members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td>@REMOVE</td>
<td>List 1, List 2</td>
<td>i. Enter the first list of members to be merged.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter the second list of members to be merged.</td>
</tr>
<tr>
<td>@RSIBLINGS</td>
<td>Member Name</td>
<td>Enter a member name or member combination, or a function that returns a member or member combination.</td>
</tr>
<tr>
<td>@SHARE</td>
<td>Range List</td>
<td>Enter a comma-delimited list of members, functions that return members, or ranges of members. All the members in rangeList must be from the same dimension.</td>
</tr>
<tr>
<td>@SIBLINGS</td>
<td>Member Name</td>
<td>Enter a member name or member combination, or a function that returns a member or member combination.</td>
</tr>
<tr>
<td>@UDA</td>
<td>Dimension Name, User Defined Attribute</td>
<td>i. Enter the name of the dimension with which the user-defined attribute is associated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter the name of the user-defined attribute as it appears in the database outline.</td>
</tr>
<tr>
<td>@WITHATTR</td>
<td>Dimension Name, Operator, Value</td>
<td>i. Enter the name of the attribute dimension.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter the operator specification, enclosed in quotation marks (&quot;&quot;).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Enter a value that, in combination with the operator, defines the condition that must be met. The value can be an attribute member specification, a constant, or a date-format function (that is, @TODATE).</td>
</tr>
</tbody>
</table>
Function | Values to Enter | Description
---|---|---
@XRANGE | ☐ Member Name 1  ☐ Member Name 2 | i. Enter a member name, member combination, or function that returns a single member.  
ii. Enter a member name, member combination, or function that returns a single member. If mbrName1 is a cross-dimensional member (such as Actual->Jan), then mbrName2 must be also, and the dimension order must match the order used in mbrName1.

See “Working with Functions” on page 400 for a list of supported functions for Financial Management, Planning, and Essbase.

- **Financial Management Users Only:** On **Lists**, do these tasks:
  a. Select a member list for the dimension you selected, and enter the parameters for the list according to this table:

Table 27  Financial Management Member Lists and Parameters

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Member Lists and Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
<td>☐ For <strong>Hierarchy, Descendants, Ancestors, Parents, Children</strong>, and <strong>Base</strong>, enter values for these parameters:&lt;br&gt;  ☐ Top Member  ☐ Active Entities  ☐ Scenario  ☐ Year  ☐ Period  ☐ For <strong>System</strong>, enter no parameters.</td>
</tr>
<tr>
<td>Custom 1</td>
<td>☐ For <strong>Hierarchy, Descendants, Children, Base, Ancestors</strong>, and <strong>Parents</strong> enter values for these parameters:&lt;br&gt;  ☐ Top Member  ☐ Active Entities  ☐ Scenario  ☐ Year  ☐ Period  ☐ For <strong>Currencies</strong>, and <strong>ConsolMethods</strong>, enter no parameters.</td>
</tr>
<tr>
<td>Custom 2</td>
<td>☐ For <strong>Hierarchy, Descendants, Ancestors, Parents, Children</strong>, and <strong>Base</strong>, enter values for these parameters:&lt;br&gt;  ☐ Top Member  ☐ Active Entities  ☐ Scenario  ☐ Year  ☐ Period  ☐ For <strong>Currencies</strong>, enter no values.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Member Lists and Parameters</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Custom 3</td>
<td>For <strong>Hierarchy, Descendants, Ancestors, Parents, Children, and Base</strong>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td>Custom 4</td>
<td>For <strong>Hierarchy, Descendants, Ancestors, Parents, Children, and Base</strong>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td>Entity</td>
<td>For <strong>Hierarchy, Descendants, Ancestors, Parents, Children, and Base</strong>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td></td>
<td>For <strong>Adjustment Entities, and Parent Adjustment Entities</strong>, enter no values.</td>
</tr>
<tr>
<td>ICP</td>
<td>For <strong>Hierarchy, Descendants, Ancestors, Parents, Children, and Base</strong>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td></td>
<td>For <strong>System</strong>, enter no values.</td>
</tr>
<tr>
<td>Period</td>
<td>For <strong>Hierarchy, Descendants, Ancestors, Parents, and Children</strong>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td></td>
<td>For <strong>First Generation, Second Generation, Third Generation, Fourth Generation, Fifth Generation, and Sixth Generation</strong>, enter no values.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Member Lists and Parameters</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Scenario</td>
<td>For <em>Hierarchy, Descendants, Ancestors, and Parents</em>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td></td>
<td>For <em>Support Process Management</em>, enter no values.</td>
</tr>
<tr>
<td>Value</td>
<td>For <em>Hierarchy, and Descendants</em>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td></td>
<td>For <em>Input, Adjustments, Totals, and Default Currencies</em>, enter no values.</td>
</tr>
<tr>
<td>View</td>
<td>For <em>Hierarchy, and Descendants</em>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
<tr>
<td>Year</td>
<td>For <em>Hierarchy, and Descendants</em>, enter values for these parameters:</td>
</tr>
<tr>
<td></td>
<td>- Top Member</td>
</tr>
<tr>
<td></td>
<td>- Active Entities</td>
</tr>
<tr>
<td></td>
<td>- Scenario</td>
</tr>
<tr>
<td></td>
<td>- Year</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
</tr>
</tbody>
</table>

b. Click the right arrow button to move the member list to the **Selections** list. You can also use the options in the table above to further define your selection. See Table 26 on page 368.

8 Do one of these tasks:

- If you are selecting a member, function, or member list for either of the following, proceed to step 9.
  - A variable value whose type is member
  - A function where the parameter is member
- If you are selecting a member, function, or member list for any of the following, repeat step 6 and step 7 until you select a member, function, or member list for each dimension. Then proceed to step 9.
  - The global range of a Planning or Essbase business rule
A template where the design time prompt type is a slice
- A variable value whose type is members
- A variable limit whose type is member
- A loop component
- A function where the parameter is members

9 Click OK.

Adding Multiple Members or Functions from One or More Dimensions to a Component

The Member Selector enables you to select members within a dimension. Expand and collapse members within a dimension using the [+ ] and [- ].

The Member Selector dialog box has two panes—all members and functions in the dimension and functions are on the Members and Functions tabs on the left; the members and functions you select are in Selections on the right. The left pane, showing all members available in the dimension, displays the member name and a short description, if available. The right pane, showing selections, displays the member name and the selection type.

When you are in a component that enables you to select multiple members, you can use Shift + Click and Ctrl + Click to select contiguous or non-contiguous members.

To add multiple members from one or more dimensions to a component:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component is in a business rule or template.

3 Do one of these tasks:
   - Right-click the template that contains the component you want to add a member to, and select Open.
   - Right-click the business rule that contains the component you want to add a member to, and select Open.

4 When the business rule or template opens, in its flow chart, select the component to which you want to add a member.

   Note: You cannot add a member to a loop component.

5 Click the Member Selector icon.

6 In the Member Selector, from Dimensions, select a dimension.

   The members for the dimension you select are displayed on Members, and the functions for the application you are working in are displayed on Functions.
7 Do one of these tasks:

- On **Members**, use **Ctrl + Click** or **Shift + Click** to select members, and click the right arrow button to move them to the **Selections** list. You can also use the options in this table to further define your selections.

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Special</td>
<td>Select one of these to add additional members or functions related to the members or functions you selected on the tab:</td>
</tr>
<tr>
<td></td>
<td>- Member</td>
</tr>
<tr>
<td></td>
<td>- Children</td>
</tr>
<tr>
<td></td>
<td>- Descendents</td>
</tr>
<tr>
<td></td>
<td>- Siblings</td>
</tr>
<tr>
<td></td>
<td>- Parent</td>
</tr>
<tr>
<td></td>
<td>- Ancestors</td>
</tr>
<tr>
<td></td>
<td>- Level 0 (Base)</td>
</tr>
<tr>
<td></td>
<td>- Inclusive</td>
</tr>
<tr>
<td>Select</td>
<td>Select to move the member or function to the Selections list.</td>
</tr>
<tr>
<td>Deselect</td>
<td>Select to remove the member or function from the Selections list.</td>
</tr>
<tr>
<td>Deselect All</td>
<td>Select to remove all members and functions from the Selections list.</td>
</tr>
<tr>
<td>Search</td>
<td>Select to search for a member or function you enter in the field. (See “Searching for Members” on page 383.)</td>
</tr>
<tr>
<td>Advanced Search</td>
<td>Select to access advanced search options. (See “Searching for Members” on page 383.)</td>
</tr>
<tr>
<td>Previous</td>
<td>Select to search for the member or function you entered before the current search.</td>
</tr>
<tr>
<td>Next</td>
<td>Select to search for the member or function you entered after the current search.</td>
</tr>
</tbody>
</table>

- **Planning and Essbase users only**: On **Functions**, do these tasks:
  
a. Use **Ctrl + Click** or **Shift + Click** to select functions, and click the **right arrow** button to move them to the **Selections** list. You can also use the options in the table above to further define your selections. See Table 28.

b. Enter the required values for the functions, according to this table:

<table>
<thead>
<tr>
<th>Function</th>
<th>Values to Enter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ANCESTORS</td>
<td>Member Name</td>
<td>Enter the member name or click Member to select a member.</td>
</tr>
<tr>
<td>Function</td>
<td>Values to Enter</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>@ANCEST</td>
<td>‣ Dimension Name</td>
<td>i. Enter the dimension name you selected in Dimensions.</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Number</td>
<td>ii. Enter an integer value that defines the generation or level number from</td>
</tr>
<tr>
<td></td>
<td>‣ Member Name</td>
<td>which the ancestor value is returned. A positive integer defines a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>generation number. A value of 0 or a negative integer defines a level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>number.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Enter any member name or member combination.</td>
</tr>
<tr>
<td>@ANCESTORS</td>
<td>‣ Member Name</td>
<td>i. Enter a member name or member combination.</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Number</td>
<td>ii. Enter an integer value that defines the absolute generation or level</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Name</td>
<td>number up to which to include members. A positive integer defines a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>generation number. A value of 0 or a negative integer defines a level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>number.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Enter a level name or generation name up to which to include members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the selection.</td>
</tr>
<tr>
<td>@ATTRIBUTE</td>
<td>Attribute Member Name</td>
<td>For the dimension you entered, enter the attribute member name or member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>combination you want to include in the selection.</td>
</tr>
<tr>
<td>@CHILDREN</td>
<td>Member Name</td>
<td>Enter a member name or member combination, or a function that returns a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>member or member combination.</td>
</tr>
<tr>
<td>@CURRMBR</td>
<td>Dimension Name</td>
<td>Enter the dimension name.</td>
</tr>
<tr>
<td>@DESCENDANTS</td>
<td>‣ Member Name</td>
<td>i. Enter a member name or member combination.</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Number</td>
<td>ii. Enter an integer value that defines the absolute generation or level</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Name</td>
<td>number up to which to include members. A positive integer defines a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>generation number. A value of 0 or a negative integer defines a level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>number.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Enter a level name or generation name up to which to include members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the selection.</td>
</tr>
<tr>
<td>@GENMBRS</td>
<td>‣ Dimension Name</td>
<td>i. Enter a dimension name.</td>
</tr>
<tr>
<td></td>
<td>‣ genName</td>
<td>ii. Enter a generation name from dimName. A positive integer defines a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>generation number.</td>
</tr>
<tr>
<td>@IALLANCESTORS</td>
<td>Member Name</td>
<td>Enter a member name or member combination, or a function that returns a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>member or member combination.</td>
</tr>
<tr>
<td>@IANCESTORS</td>
<td>‣ Member Name</td>
<td>i. Enter a member name or member combination, or a function that returns</td>
</tr>
<tr>
<td></td>
<td>‣ Generation Level Number</td>
<td>a member or member combination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Enter an integer value that defines the absolute generation or level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>number up to which to include members in the selection. A positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>integer defines a generation number. A value of 0 or a negative integer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>defines a level number.</td>
</tr>
<tr>
<td>@ICHAILDREN</td>
<td>Member Name</td>
<td>Enter a member name or member combination, or a function that returns a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>member or member combination.</td>
</tr>
<tr>
<td>Function</td>
<td>Values to Enter</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| @DESCENDANTS | Member Name, Generation Level Number | i. Enter a member name or member combination, or a function that returns a member or member combination.  
ii. Enter an integer value that defines the absolute generation or level number up to which to include members in the selection. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number. |
| @LSIBLINGS   | Member Name                      | Enter a member name or member combination, or a function that returns a member or member combination.                                                                                                       |
| @RDESCENDANTS | Member Name, Generation Level Number | i. Enter a member name or member combination, or a function that returns a member or member combination.  
ii. Enter an integer value that defines the absolute generation or level number up to which to include members in the selection. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number. |
| @RSIBLINGS   | Member Name                      | Enter a member name or member combination, or a function that returns a member or member combination.                                                                                                       |
| @ISIBLINGS   | Member Name                      | Enter a member name or member combination, or a function that returns a member or member combination.                                                                                                       |
| @LEVELMBRS   | Dimension Name, Level Name       | i. Enter a dimension name.  
ii. Enter a level name or an integer value that defines the number of a level. The integer value must be 0 or a positive integer.                                                                  |
| @LIST        | Argument                         | Enter a list of arguments that will be collected and treated as one argument so they can be processed by the parent function. Arguments can be member names, member combinations, member set functions, range functions, and numeric expressions. |
| @LSIBLINGS   | Member Name                      | Enter a member name or member combination, or a function that returns a member or member combination.                                                                                                       |
| @MATCH       | Member, Generation, genName, Pattern to Match | i. Enter the default or user-defined name of the member on which to base the selection. Calculation Manager searches the member names and alias names of the specified member and its descendants.  
ii. Enter the default or user-defined name of the generation on which to base the selection. Calculation Manager searches all member names and member alias names in the generation.  
iii. Enter the character pattern to search for, including a wildcard character ( or ?). ? substitutes one occurrence of any character. You can use ? anywhere in the pattern. * substitutes any number of characters. You can use * only at the end of the pattern. To include spaces in the character pattern, enclose the pattern in double quotation marks (""). |
| @MEMBER      | String                           | Enter a string (enclosed in double quotation marks) or a function that returns a string.                                                                                                                      |
| @MERGE       | List 1, List 2                   | i. Enter the first list of members to be merged.  
ii. Enter the second list of members to be merged.                                                                                                                                                         |
<table>
<thead>
<tr>
<th>Function</th>
<th>Values to Enter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@PARENT</td>
<td>✓ Dimension Name</td>
<td>i. Enter the dimension name.</td>
</tr>
<tr>
<td></td>
<td>✓ Member Name</td>
<td>ii. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td>✓ Member Name</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td>✓ Range List</td>
<td>ii. Enter a member name, a comma-delimited list of member names, member set functions, or range functions. If rangeList is not specified, Calculation Manager uses the level 0 members from the dimension tagged as Time.</td>
</tr>
<tr>
<td>@RANGE</td>
<td>✓ Member Name</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td>✓ Generation Level</td>
<td>ii. Enter an integer value that defines the absolute generation or level number down to which to select the members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td>@RDESCENDANTS</td>
<td>✓ Member Name</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td>✓ Generation Level</td>
<td>ii. Enter an integer value that defines the absolute generation or level number down to which to select the members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td>@RELATIVE</td>
<td>✓ Member Name</td>
<td>i. Enter a member name or member combination, or a function that returns a member or member combination, to be combined with the parent returned.</td>
</tr>
<tr>
<td></td>
<td>✓ Generation Level</td>
<td>ii. Enter an integer value that defines the absolute generation or level number down to which to select the members. A positive integer defines a generation number. A value of 0 or a negative integer defines a level number.</td>
</tr>
<tr>
<td>@REMOVE</td>
<td>✓ List 1</td>
<td>i. Enter the first list of members to be merged.</td>
</tr>
<tr>
<td></td>
<td>✓ List 2</td>
<td>ii. Enter the second list of members to be merged.</td>
</tr>
<tr>
<td>@RSIBLINGS</td>
<td>✓ Member Name</td>
<td>Enter a member name or member combination, or a function that returns a member or member combination.</td>
</tr>
<tr>
<td>@SHARE</td>
<td>✓ Range List</td>
<td>Enter a comma-delimited list of members, functions that return members, or ranges of members. All the members in rangeList must be from the same dimension.</td>
</tr>
<tr>
<td>@SIBLINGS</td>
<td>✓ Member Name</td>
<td>Enter a member name or member combination, or a function that returns a member or member combination.</td>
</tr>
<tr>
<td>@UDA</td>
<td>✓ Dimension Name</td>
<td>i. Enter the name of the dimension with which the user-defined attribute is associated.</td>
</tr>
<tr>
<td></td>
<td>✓ User Defined</td>
<td>ii. Enter the name of the user-defined attribute as it appears in the database outline.</td>
</tr>
<tr>
<td></td>
<td>Attribute</td>
<td></td>
</tr>
<tr>
<td>@WITHATTR</td>
<td>✓ Dimension Name</td>
<td>i. Enter the name of the attribute dimension.</td>
</tr>
<tr>
<td></td>
<td>✓ Operator</td>
<td>ii. Enter the operator specification, enclosed in quotation marks (&quot;&quot;&quot;).</td>
</tr>
<tr>
<td></td>
<td>✓ Value</td>
<td>iii. Enter a value that, in combination with the operator, defines the condition that must be met. The value can be an attribute member specification, a constant, or a date-format function (that is, @TODATE).</td>
</tr>
<tr>
<td>Function</td>
<td>Values to Enter</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| @XRANGE  | ✓ Member Name 1 ✓ Member Name 2 | i. Enter a member name, member combination, or function that returns a single member.  
   ii. Enter a member name, member combination, or function that returns a single member. If mbrName1 is a cross-dimensional member (such as Actual->Jan), then mbrName2 must be also, and the dimension order must match the order used in mbrName1. |

- **Financial Management Users Only:** On **Lists**, do these tasks:
  
a. Select a member list for the dimension you selected, and enter the parameters for the list according to this table:

**Table 30  Financial Management Member Lists and Parameters**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Member Lists and Parameters</th>
</tr>
</thead>
</table>
| Account   | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
   - Top Member  
   - Active Entities  
   - Scenario  
   - Year  
   - Period  
   - For **System**, enter no parameters. |
| Custom 1  | For **Hierarchy, Descendants, Children, Base, Ancestors, and Parents** enter values for these parameters:  
   - Top Member  
   - Active Entities  
   - Scenario  
   - Year  
   - Period  
   - For **Currencies**, and **ConsolMethods**, enter no parameters. |
| Custom 2  | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
   - Top Member  
   - Active Entities  
   - Scenario  
   - Year  
   - Period  
   - For **Currencies**, enter no values. |
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Member Lists and Parameters</th>
</tr>
</thead>
</table>
| Custom 3  | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
|           | - Top Member  
|           | - Active Entities  
|           | - Scenario  
|           | - Year  
|           | - Period |
| Custom 4  | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
|           | - Top Member  
|           | - Active Entities  
|           | - Scenario  
|           | - Year  
|           | - Period |
| Entity    | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
|           | - Top Member  
|           | - Active Entities  
|           | - Scenario  
|           | - Year  
|           | - Period  
|           | For **Adjustment Entities, and Parent Adjustment Entities**, enter no values. |
| ICP       | For **Hierarchy, Descendants, Ancestors, Parents, Children, and Base**, enter values for these parameters:  
|           | - Top Member  
|           | - Active Entities  
|           | - Scenario  
|           | - Year  
|           | - Period  
|           | For **System**, enter no values. |
| Period    | For **Hierarchy, Descendants, Ancestors, Parents, and Children**, enter values for these parameters:  
|           | - Top Member  
|           | - Active Entities  
|           | - Scenario  
|           | - Year  
|           | - Period  
|           | For **First Generation, Second Generation, Third Generation, Fourth Generation, Fifth Generation, and Sixth Generation**, enter no values. |
### Dimension | Member Lists and Parameters
--- | ---
| Scenario | For Hierarchy, Descendants, Ancestors, and Parents, enter values for these parameters:
- Top Member
- Active Entities
- Scenario
- Year
- Period
- For Support Process Management, enter no values.
| Value | For Hierarchy, and Descendants, enter values for these parameters:
- Top Member
- Active Entities
- Scenario
- Year
- Period
- For Input, Adjustments, Totals, and Default Currencies, enter no values.
| View | For Hierarchy, and Descendants, enter values for these parameters:
- Top Member
- Active Entities
- Scenario
- Year
- Period
| Year | For Hierarchy, and Descendants, enter values for these parameters:
- Top Member
- Active Entities
- Scenario
- Year
- Period

b. Click the right arrow button to move the member list to the Selections list. You can also use the options in the table above to further define your selection. See Table 28 on page 376.

### 8 Do one of these tasks:
- If you are selecting members, functions, or member lists to define a variable value whose type is members, repeat step 6 and step 7 until you select members, functions, or member lists for each dimension. Then proceed to step 9.
- If you are selecting members, functions, or member lists for any of these, proceed to step 9.
  - The global range of a Planning or Essbase business rule
  - A template where the design time prompt type is a slice
  - A variable value whose type is members
A variable limit whose type is member
- A loop component
- A function where the parameter is members

Click **OK**.

Removing Members and Functions from a Component

You can remove members from formula, script, condition, and member and data range components. You can remove functions from formula, script, and condition components.

When you remove members and functions from a component, they are not deleted from the database. If you want to remove members and functions from a shared component, you must make the component not shared first.

To remove members or functions from a component:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and **Rules** or **Templates**, depending on whether the component is in a business rule or template.
3. Do one of these tasks:
   - Right-click the template that contains the component you want to add a member to, and select **Open**.
   - Right-click the business rule that contains the component you want to add a member to, and select **Open**.
4. When the business rule or template opens, in its flow chart, select the component that contains the member or function you want to remove.
5. Click the **Actions** icon, and select **Member**.
6. In **Member Selector**, from **Dimensions**, select the dimension that contains the member or function you want to remove.
7. Use the left arrow to move the member or function from **Selections** to **Members** or **Functions**. See **Table 25** on page 368.
8. If you want to remove members from multiple dimensions, click **Next**, and repeat step 6 and step 7.
9. Click **OK**.
10. Select **File**, **Save**.

Searching for Members

You can search for members within the Member Selector.
To search for members:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type (for Financial Management), the plan type (for Planning), or the database (for Essbase), and Rules or Templates, depending on whether the component is in a business rule or template.

3. Do one of these tasks:
   - Right-click the template that contains the component for which you want to search for members, and select Open.
   - Right-click the business rule that contains the component for which you want to search for members, and select Open.

4. When the business rule or template opens, in its flow chart, select the component for which you want to search for members.

5. Click the Actions icon, and select Member.

6. In Member Selector, from Dimensions, select the dimension that contains the member for which you want to search.

7. Optional: From the Menu icon you can customize the display of members in the dialog by doing these tasks:
   - Select or clear the options in Show to display or hide the member’s name, alias, description, and count. (By default, the name and alias of the member is displayed.)
   - Select Collapse All to hide the members in the dimension you selected. (By default, the outline is collapsed when you select a dimension.)

8. In Find a Member, enter the name of the member for which to search.

9. Click Search to search for the member.

10. Optional: Click Advanced Search to search for the member by its name, alias, or one of its properties. See “Searching for Members by Name, Alias, or Property” on page 384.

11. Optional: If more than one member matches your search criteria, use the left and right arrows to move up and down the outline to locate all members that match your search criteria.

12. Click OK.

   If the member is found, it is highlighted in the outline on Members.

Searching for Members by Name, Alias, or Property

You can use Advanced Search within the Member Selector to search for a member by its name, its alias, or one of its properties.

To search for a member by name, alias, or property:

1. From the Member Selector, click Advanced Search.
2 In Find Members, from Search By, select one of these options:
   - Name, if you want to search for the member by its name. Then go to step 4.
   - Alias, if you want to search for the member by its alias. Then go to step 4.
   - Property, if you want to search for the member by one of its properties. Then go to step 3.

3 If you selected Property, enter or select a Property Name. See the Oracle Hyperion Planning Administrator’s Guide and the Oracle Hyperion Financial Management Administrator’s Guide for information on Planning and Financial Management member properties. See the Oracle Essbase Database Administrator’s Guide for information on Essbase member properties.

4 Enter a value for the name, alias, or property.

5 Click OK.

If the alias, name or property is found, it is highlighted in the outline on Members.

Note: When you search for members by alias, all members that have aliases matching the search criteria are highlighted in the outline, including members with aliases in other languages. However, only aliases for members in the language being used are displayed in the Member Selector.

6 Optional: If more than one member matches your search criteria, use the left and right arrows to move up and down the outline to locate all members that match your search criteria.

Working with Variables

Variables assume values that you define for them. You use them in components as you are designing business rules and templates.

You can create new variables from the System View and from within the Component Designer by launching the Variable Navigator. When you create a variable from within the Component Designer, the variable is associated with the business rule that contains the component for which you created the variable. You can also create variables directly from the System View, and associate them with business rules, calculation or plan types, databases, or applications that you select.

There are two types of variables:

- Execution: When the business rule is launched, the calculation defined for the variable is performed. You can use execution variables in formula, condition, or loop components.
- Replacement: When you are designing or launching the business rule, the variable is substituted with a calculation. You can use replacement variables in formula components.

There are several types of execution and replacement variables you can create.

Note: The variables you can create differ depending on what application type you are working in and whether you are creating an execution or replacement variable.
You can create execution variables that prompt users to enter information when they are launching a business rule in Planning. These runtime prompt variables prompt users for such variables as members, text, dates, or numbers. The prompts tell users specifically what type of data is expected.

**Note:** Runtime prompt variables can be used only in Planning business rules.

For example:

- Select a month.
- Enter the expected number of customer visits per quarter.
- What percentage change in earnings do you expect next month?

There are up to four database objects with which you can associate a variable, depending on which application type you are creating a variable for:

- (Financial Management and Planning users only) Global: If you select global, the variable can be used in any application within an application type.
- Application: If you select application, the variable can be used within the application with which you are working when you create the variable.
- (Planning and Essbase users only) Plan: If you select plan, the variable can be used within the plan type or database with which you are working when you create the variable.
(Planning and Essbase users only) Rule: If you select rule, the variable can be used within the business rule with which you are working when you create the variable.

Note: Runtime prompt variables of all levels (that is, global, application, plan, and rule) can be hidden when they are used in business rules. Runtime prompt variables are supported only in Planning business rules.

Creating a Variable from the System View

You can create a variable from the System View or from within the Component Designer by launching the Variable Navigator.

1. To create a variable from the System View:
   1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
   2. In the System View, select Tools, Variables.
   3. In the Variable Navigator, expand the Financial Management, Planning, or Essbase application type.
   4. Do one of these tasks:
      - Financial Management and Planning users only: Right-click <Global>, and select New to create a variable that can be used in any application of the same application type. (This is the default selection.)
      - Financial Management, Planning, and Essbase users: Right-click an application, and select New to create a variable that can be used in that application only.
      - Planning and Essbase users only: Right-click a plan type or database, and select New to create a variable that can be used in that plan type or database only.
      - Planning and Essbase users only: Right-click a business rule, and select New to create a variable that can be used in that rule only.
   5. If you want to create a replacement variable, select Replacement, and do one of these tasks:
      - Proceed to step 6 to create a replacement variable for Financial Management.
      - Proceed to step 7 to create a replacement variable for Planning or Essbase.
   6. Financial Management users only: If you want to create a replacement variable for Financial Management, on Replacement do these tasks:
      a. Enter a name for the variable.
      b. Select a type for the variable:
         - Numeric—a number
         - String—a text string
         - Member Range—a range of members from one or more dimensions
         - Financial Management users only: Data Range—a range of data values
- **Financial Management users only**: Log Information—information from the log file

  **Note**: The options on the tab change depending on what type of variable you select.

  c. Enter a description for the variable.

  d. If you want to include this variable in a group, enter the group name. The group name is displayed under the Group column after you save and refresh the variables.

  e. In the **Value** table, enter values for the variable.

    - For entering values for numeric variables, see “Entering Variable Values for a Numeric Variable” on page 390
    - For entering values for string variables, see “Entering Variable Values for a String Variable” on page 391
    - For entering values for member range variables, see “Entering Variable Values for a Member or Members Variable (Planning and Essbase Users Only)” on page 394
    - For entering values for data range variables, see “Entering Values for a Data Range Variable (Financial Management Users Only)” on page 396
    - For entering values for log information variables, see “Entering Values for a Log Information Variable (Financial Management Users Only)” on page 396

7 **Planning and Essbase users only**: If you want to create a replacement variable for Planning or Essbase, on **Replacement**, do these tasks:

  a. Enter a name for the variable.

  b. Select a type for the variable:

    - Numeric—a number
    - String—a text string
    - Essbase—an Essbase substitution variable.
    - Cross Dimension—a selection of multiple dimensions
    - Dimension—a dimension
    - Member—a member
    - Members—two or more members
    - Percent—a percentage
    - **Planning users only**: String as number—a text string
    - **Planning users only**: Date as number—a date
    - Member Range—a range of members from one or more dimensions

    **Note**: The options on the tab change depending on what type of variable you select.

  c. Enter a description for the variable.
d. If you want to include this variable in a group, enter the group name. The group name is displayed under the **Group** column after you save and refresh the variables.

e. If the variable is a runtime prompt variable, select **Use Last Entered Value** if you want the value that a user last entered for the prompt to be displayed as the default value the next time the prompt occurs.

**Note:** This option is selectable only if the variable has runtime prompts.

f. In the **Value** table, enter values for the variable. The values you enter change depending on the variable type you select above. See these topics:

   - For entering values for numeric variables, “Entering Variable Values for a Numeric Variable” on page 390.
   - For entering values for string variables, “Entering Variable Values for a String Variable” on page 391.
   - For entering values for cross dimension variables, “Entering Variable Values for a Cross Dimension Variable (Planning and Essbase Users Only)” on page 393.
   - For entering values for dimension variables, “Entering Variable Values for a Dimension Variable (Planning and Essbase Users Only)” on page 394.
   - For entering values for member, members, or member range variables, “Entering Variable Values for a Member or Members Variable (Planning and Essbase Users Only)” on page 394.
   - For entering values for percent, string as number, and date as number variables, “Entering Variable Values for Percent Variables (Planning and Essbase Users Only)” on page 395.

8. **If you want to create an execution variable, select Execution, and do one of these tasks**:

   - Proceed to step 9 to create an execution variable for Financial Management.
   - Proceed to step 10 to create an execution variable for Planning or Essbase.

9. **Financial Management users only**: If you want to create an execution variable for Financial Management, on **Execution**, do these tasks:

   a. Enter a name for the variable.
   b. Select the variable type: numeric, string, Boolean, or array.
   c. Enter a description of up to 255 characters for the variable.
   d. Enter a value for the variable.
   e. If you want to put the variable in a group, enter its name. The group name is displayed under the **Group** column after you save and refresh the variables.
   f. Enter the scope of the variable. It can be used in rules or rulesets.
   g. If the variable type is an array:
      i. Enter the size of the array.
      ii. Select the string or numeric data type.
Planning and Essbase users only: If you want to create an execution variable for Planning or Essbase, on Execution, do these tasks:

a. Enter a name for the variable.

b. Specify whether the variable is an array. If you select this check box, you must select a dimension, too.

c. Enter a value for the variable.

d. If you want to put the variable in a group, enter its name. The group name is displayed under the Group column after you save and refresh the variables.

e. If you selected Array as the variable type, select a Planning or Essbase dimension.

Repeat steps step 6 through step 10 for each variable you want to create.

Select File, Save.

Entering Variable Values for a Numeric Variable

A numeric variable can be a Planning, Essbase, or Financial Management replacement variable or a Financial Management execution variable.

To enter values for a Planning or Essbase numeric variable:

1. Complete step 1 on page 387 through step 5 on page 387.

2. From Type, select Numeric.

3. In the Value table, select a Smart List.

Select the Smart List check box if you want to use a Smart List as the variable type. (See the Oracle Hyperion Planning Administrator’s Guide for this release.) For example, you can set up an integer Smart List for a reporting cycle that has values 1-5, for Yearly (1), Quarterly (2), Monthly (3), Daily (4), and Hourly (5). A user can select “Monthly” and the number three is stored in the database. This prevents users from having to remember the numbers.

You can also set up a string of text or a date as the value for the Smart List.

Note: You must select a Planning application that supports the use of Smart Lists to enable this check box.

4. In Limits, select a limit for the Smart List.

Note: If you are using an Essbase substitution variable as the runtime prompt value and the value of that substitution variable is outside of variable limits, launching a rule does not give any error and launches successfully.

5. Select a value for the Smart List.

6. By default, RTP is selected. If you do not want to create a runtime prompt for this variable, clear RTP.

Note: If you do not select RTP, you must enter a value for the variable.

7. If you selected RTP, enter the runtime prompt text you want to display for users.
Specify whether missing data values are allowed.

Select File, Save.

To enter values for a Financial Management replacement or execution numeric variable:
1. Complete steps step 1 on page 387 through step 5 on page 387.
2. Enter a value, or click in the Value field to display the Actions icon.
3. Do one of these tasks:
   - To enter members, select Member. See “Working with Members” on page 366.
   - To enter functions, select Function. See “Working with Functions” on page 400.
4. Select File, Save.

Entering Variable Values for a String Variable

A string variable can be a Financial Management, Planning, or Essbase replacement variable or a Financial Management execution variable. A string variable must be alphanumeric and be no more than 255 characters. It can contain a null value, but cannot contain a leading & (ampersand) character in the value.

To enter values for a Planning or Essbase replacement string variable:
1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select String.
3. In the Value table, enter a value for the variable.
4. By default, RTP is selected. If you do not want to create a runtime prompt for this variable, clear RTP.

Note: If you do not select RTP, you must enter a value for the variable.
5. If you selected RTP, enter the runtime prompt text you want to display for users.
6. Select File, Save.

To enter values for a Financial Management replacement or execution string variable:
1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select String.
3. Enter a value, or click in the Value field to display the Actions icon.
4. Do one of these tasks:
   - To enter members, select Member. See “Working with Members” on page 366.
   - To enter functions, select Function. See “Working with Functions” on page 400.
5. Select File, Save.
**Entering Values for an Array Variable**

An array variable can be a Financial Management, Planning, or Essbase execution variable. Arrays contain a list of values that can be multidimensional.

Typically, arrays are used to store variables as part of a member formula. The size of the array variable is determined by the number of members in the corresponding dimension. For example, if the Scenario dimension has four members, the following command creates an array called Discount with four entries. You can use more than one array at a time.

```
ARRAY Discount[Scenario];
```

To enter values for an array variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Array.
3. In the Value field, enter a value for the variable.
4. Select File, Save.

**Entering Values for a Member Range Variable**

A member range variable can be a Financial Management, Planning, or Essbase replacement variable. The member range variable should contain a range of members inclusive of, and between, two specified members.

To enter values for a member range variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Member Range.
3. In the Value table, do one of these, depending on whether you are creating a member range for Financial Management, Planning, or Essbase.
   a. If you are creating a member range variable for Financial Management:
      i. Select a dimension to limit the member selection. If you select a dimension, the Member Selector displays members only for that dimension. If you do not select a dimension, the Member Selector displays all dimensions.
      ii. In Value, enter a value for the variable, or select the Actions icon to enter members, variables, or functions for the variable value.
         * To enter variables, see “Working with Variables” on page 385.
         * To enter members, see “Working with Members” on page 366.
         * To enter functions, “Working with Functions” on page 400.
      iii. In Variable, select the Variable icon to select a variable for the member range.
      iv. Click the Comments icon to enter comments for the variable.
      v. Repeat these steps for each dimension for which you want to define a member range.
b. If you are creating a member range variable for Planning or Essbase:
   i. For each dimension in the table for which you want to define a member range, enter or use the Member Selector to select limits for the member range. (The dimensions that display are the dimensions that belong to the application for which you are creating the variable.)

   **Note:**  
   Planning users only: You must select RTP before you enter text in the Limits field.

   ii. Enter or use the Member Selector to select values for the member range. You can select multiple members and functions for each dimension listed.

   iii. **Planning users only:** Select RTP for each dimension listed if you want the variable to prompt users for information when it is launched.

   **Note:**  
   If you do not select RTP, you must enter a value for the variable.

   iv. **Planning users only:** For each dimension for which you selected RTP, enter the runtime prompt text you want to display for users each time the variable is launched for that dimension.

4 Select File, Save.

**Entering Variable Values for a Cross Dimension Variable (Planning and Essbase Users Only)**

A cross dimension variable is a Planning or Essbase replacement variable. It contains a range of members from multiple dimensions that enable you to launch business rules across dimensions.

To enter values for a cross dimension variable:

1 Complete step 1 on page 387 through step 5 on page 387.

2 From Type, select Cross Dimension.

3 For each dimension listed, in the Value table, enter or use the Member Selector to select limits for the variable.

   **Note:**  
   You must select RTP before you enter text in the Limits field.

4 Enter or use the Member Selector to select a value for the variable. You can select a member or a function.

5 **Planning users only:** Select RTP if the variable has a runtime prompt.

   **Note:**  
   If you do not select RTP, you must enter a value for the variable.

6 **Planning users only:** Enter the runtime prompt text you want to display for users.

7 Repeat step 3 through step 6 to select values for the all of the dimensions.

8 Select File, Save.
**Entering Variable Values for a Dimension Variable (Planning and Essbase Users Only)**

A dimension variable is a Planning or Essbase replacement variable. This variable contains a dimension that you select.

To enter values for a dimension variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Dimension.
3. In the Value table, select a dimension. The dimensions that display are the dimensions that belong to the application for which you are creating the variable.
4. **Planning users only:** By default, RTP is selected. Clear RTP if you do not want the variable to have a runtime prompt.

   **Note:** If you do not select RTP, you must enter a value for the variable.
5. **Planning users only:** If you selected RTP, enter the runtime prompt text you want to display for users.
6. Select File, Save.

**Entering Variable Values for a Member or Members Variable (Planning and Essbase Users Only)**

The member and members variables are Planning and Essbase replacement variables. These variables contain a member or multiple members from a dimension that you select.

To enter values for a member or members variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Member or Members.
3. In the Value table, select a dimension. The dimensions that display are the dimensions that belong to the application for which you are creating the variable.
4. Enter or use the Member Selector to select limits for the variable. You can select members only from the dimension you select in step 3. You can also select functions. See “Working with Functions” on page 400.
5. Enter or use the Member Selector to select a value for the variable. You can select one member or function for a member variable and multiple members and functions for a members variable.
6. **Planning users only:** By default, RTP is selected. If you do not want to create a runtime prompt, clear RTP.

   **Note:** If you do not select RTP, you must enter a value for the variable.
7. **Planning users only:** If you selected RTP, enter the runtime prompt text you want to display for users.
8. Select File, Save.
Entering Variable Values for Percent Variables (Planning and Essbase Users Only)

The Percent variable is a Planning and Essbase replacement or execution variable. This variable contains a percentage that you specify.

To enter values for a percent variable:
1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Percent.
3. In the Value table, click in Limits to define minimum and maximum values for the variable.
4. Enter a numeric value for the variable.
5. **Planning users only:** By default, RTP is selected. If you do not want to create a runtime prompt, clear RTP.

   **Note:** If you do not select RTP, you must enter a value for the variable.

6. **Planning users only:** If you selected RTP, enter the runtime prompt text you want to display for users.
7. Select whether to allow missing data values.
8. Select File, Save.

Entering Variable Values for String as Number and Date as Number Variables (Planning Users Only)

The String as Number and Date as Number variables are Planning replacement or execution variables.

To enter values for a string as number or date as number variable:
1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Date as Number, Percent, or String as Number.
3. In the Value table, click in Limits to define minimum and maximum values for the variable.
4. Enter a numeric value for the variable.
5. By default, RTP is selected. If you do not want to create a runtime prompt, clear RTP.

   **Note:** If you do not select RTP, you must enter a value for the variable.

6. If you selected RTP, enter the runtime prompt text you want to display for users.
7. Select whether to allow missing data values.
8. Select File, Save.
Entering Values for a Data Range Variable (Financial Management Users Only)

The data range variable is a Financial Management replacement variable. It contains a range of
data values from dimensions you select.

➢ To enter values for a data range variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Data Range.
3. In the Value table, for each dimension listed, select the Actions icon to enter a value for the variable.  
   • To enter a variable, see “Working with Variables” on page 385.
   • To enter a member, see “Working with Members” on page 366.
   • To enter a function, see “Working with Functions” on page 400.
4. In Variable, click the Variable icon to select a variable for the data range.
5. Click the Comments icon to enter comments for the variable.
6. Repeat these steps for each dimension for which you want to define a data range.
7. Select File, Save.

Entering Values for a Boolean Variable (Financial Management Users Only)

Boolean variables are Financial Management execution variables. A Boolean variable is one that
has a true or false value.

➢ To enter values for a Boolean variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Boolean.
3. In the Value field, enter a value for the variable.
4. Select File, Save.

Entering Values for a Log Information Variable (Financial Management Users Only)

The Log Information variable is a Financial Management replacement variable.

➢ To enter values for a log information variable:

1. Complete step 1 on page 387 through step 5 on page 387.
2. From Type, select Log Information.
3. In the Value table, enter the log text and the log expression, or click Add/Edit Condition to use the
   Condition Builder. See “Using the Condition Builder to Create Conditional Statements” on page 320.
Select File, Save.

Selecting a Variable

You can select a variable from various locations throughout Calculation Manager. You can select variables as you create components from within the Component Designer, as you create design-time prompts from within the Template Designer, and other locations.

To select a variable:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules or Templates, depending on whether you want to select a variable for a component is in a business rule or template.

3. Do one of these tasks:
   - Right-click the template that contains the component you want to add a variable to, and select Open.
   - Right-click the business rule that contains the component you want to add a variable to, and select Open.

4. When the business rule or template opens, in its flow chart, select the component for which you want to insert a variable.

5. In the tabs below the flow chart, do one of these tasks:
   - For member range, data range, and fixed loop components, in the Variable field, select the Variable icon.
   - For formula components, click the Actions icon, and select Variable.
   - For script components, click the Insert a Variable icon.
   - For condition components, launch the Condition Builder, click the Actions icon, and select Variable.

6. In Select Variable, do one of these tasks:
   - If you want to create a new variable, click Create to access the Variable Navigator. See “Creating a Variable from the System View” on page 387.
   - If you want to select an existing variable, from Category, select the object with which you want to associate the variable. By default, the variable is associated with the application for which you create it. You can select:
     - (Financial Management and Planning users only) Global: The variable applies to all of the applications within an application type.
     - Application: The variable applies to the application for which it is created.
     - (Planning and Essbase users only) Plan Type: The variable applies to the plan type or database for which it is created.
(Planning and Essbase users only) Rule: The variable applies to the rule for which it is created.

7 On Replacement or Execution, select one or more variables to insert into the component.

Tip: Use Ctrl + Click or Shift + Click to select multiple variables.

8 Click OK. The variables are inserted into the component.

9 Select File > Save.

**Editing a Variable**

You can edit any property of a variable from the Variable Navigator. When you make changes to a variable that was previously validated, any component that uses the variable is no longer validated. You must validate each component again. See Chapter 13, “Validating and Deploying Rules, Rulesets, and Formula and Script Components.”

**Deleting a Variable**

You can delete a variable or variables from within the Variable Navigator if they are not used in any components or member formulas. If a variable is used in a component, you must remove the variable from the component before you can delete the variable.

To delete a variable:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, select Tools, Variables.

3 In the Variable Navigator, expand the Financial Management, Planning, or Essbase application type and the application.

4 Do one of these tasks:

   ● Financial Management and Planning users only: If the variable is a global variable, select <Global>.

   ● If the variable is an application variable, select the application with which the variable is associated.

   ● Planning and Essbase users only: If the variable is a plan type or database variable, select the plan type or database with which the variable is associated.

   ● Planning and Essbase users only: If the variable is a business rule variable, select the business rule with which the variable is associated.

Any variables associated with the application type, the application, the calculation type, plan type, or database, and the business rule are displayed on Replacement or Execution.
5 On Replacement or Execution, right click the variable you want to delete, and select Delete.
6 In Delete Confirmation, select Yes to confirm deletion of the variable.

**Refreshing Variables**

You can refresh the list of variables in the Variable Navigator to see the most current list after you add, delete, or make changes to variables.

- To refresh the list of variables in the Variable Navigator:
  1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
  2. In the System View, select Tools, Variables.
  3. Create, edit, or delete a variable. See these topics:
     - “Creating a Variable from the System View” on page 387
     - “Editing a Variable” on page 398
     - “Deleting a Variable” on page 398
  4. On Replacement or Execution, right-click, and select Refresh.

**Copying a Variable**

You can copy a variable with the same name into the same or a different application using copy and paste. You can also copy a variable with a different name into the same or a different application using Save As.

- To copy a variable with a different name using Save As:
  1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
  2. In the System View, select Tools, Variables.
  3. In the Variable Navigator, do one of these tasks:
     - Financial Management users only: Expand Consolidation and select an application or Global, depending on which contains the variable you want to copy.
     - Planning users only: Expand Planning, and select Global or the application, plan type or business rule associated with the variable you want to copy.
     - Essbase users only: Expand Essbase, and select the application, database, or business rule associated with the variable you want to copy.
  4. Right-click the variable you want to copy, and select Save As.

   The variables associated with the object you select are displayed on the Replacement and Execution tabs.
   4 Right-click the variable you want to copy, and select Save As.
In **Save As**, enter a new name for the variable, then select the application, and the calculation type, plan type, or database, or accept the defaults. (By default, the variable is copied to the same application and calculation type, plan type, or database in which it was created.)

### Loading Predefined System Variables into Financial Management Applications (Financial Management Users Only)

To work with Financial Management system templates, first you must load predefined system variables into the applications in which you want to use the system templates. These system variables are execution and replacement variables that enable the system templates to work.

**Note:** Do not modify or delete these system variables. If you do, the system templates do not work as designed. If you modify or delete a system variable accidentally, you can reload the system variables into the application.

After you load the predefined system variables into an application, you can copy them to another application and use them as application variables. You can modify and delete these copied versions, because they are not linked to the system variables.

To load predefined system variables into a Financial Management application:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. In the System View, select **Tools, Variables**.
3. In the Variable Navigator, expand **Consolidation** to display its applications.
4. Right-click the application in which you want to use the system templates, and select **Load System Variables**.

   A message is displayed that lets you know the system variables loaded successfully into the application. The predefined system variables display with application variables on the Execution and Replacement tabs when you select the application into which you loaded them from within the Variable Navigator.

**Note:** You must perform this procedure for each application in which you want to use system templates.

### Working with Functions

You use functions in formula, script, condition, and member range components to define member formulas that return data values or members. For example, you can use functions (and mathematical and logical operators) to return a list of siblings, parents, or children of a member you specify, to return a list of data values that are greater than or less than a value you specify,
or to allocate data values from a member you specify. When you select a function in Calculation Manager, you are prompted to enter the correct parameters.

The functions you can use in calculations are different for Financial Management, Planning, and Essbase.

Following is a list of the types of functions you can use in Financial Management components. Financial Management functions are categorized according to the types of rules in which they can be used. (See the Oracle Hyperion Financial Management Administrator’s Guide for a complete list, and descriptions, of the functions you can use in components in Financial Management applications.)

- Calculation
- Translation
- Consolidation
- Allocation
- Dynamic Calculation
- Transactions

Following is a list of the types of functions you can use in Planning and Essbase components. (See the Oracle Essbase Technical Reference for a complete list, and descriptions, of the functions you can use in components in Planning and Essbase applications.)

- Boolean
- Relationship
- Calculation Operators
- Control Flow
- Data declarations
- Functional
- Mathematical
- Member Set
- Range (Financial)
- Allocation
- Forecasting
- Statistical
- Date & Time
- Miscellaneous
- Custom-defined

**Note:** Functions are available in the Member Selector and the Function Selector.
Selecting Functions

You can insert functions into formula, script, condition, and member range components. The function types you can select from differ depending on the type of component with which you are working.

To select functions:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. From the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, the plan type, or the database, and Rules, Templates, Formulas, or Scripts, depending on the object for which you want to select a function.

3. Do one of these tasks:
   - Open the business rule that contains the component into which you want to insert a function. Then select the component for which you want to insert a function in the business rule's flow chart.
   - Open the template that contains the component into which you want to insert a function. Then select the component for which you want to insert a function in the template's flow chart.
   - Open the formula component into which you want to insert a function.
   - Open the script component into which you want to insert a function.

4. Do one of these tasks:
   - If you want to insert a function into a formula component, on the Formula tab, click in the Formula row, select the Actions icon, and select Functions.
   - If you want to insert a function into a script component, on the Script tab, click the Insert a function and its parameters icon.
   - If you want to insert a function into a member range component, on the Member Range tab, click in the Value column for a dimension, select the Actions icon, and select Functions.
   - If you want to insert a function into a condition component, on the Condition tab, click the Condition Builder icon. In the Condition Builder, from Formula, Function, or Value, select the Actions icon, and select Functions.

5. In the Function Selector, do one of these tasks:

   Note: Depending on the context in which you invoke the Function Selector, the available function types may be more limited than the function types described in “Working with Functions” on page 400.

   - If you can select function types from Category, select one, or select All Functions to display functions for all function types. The functions for the category, or all functions, are displayed in a list below the Category selection.
If you cannot select among function types in **Category**, proceed to step 6.

6  Select a function from the list of functions.

7  Enter parameters for the function. (See the *Oracle Essbase Technical Reference* for a description of the functions and parameters you can use for Planning and Essbase components. See the *Oracle Hyperion Financial Management Administrator's Guide* for a description of the functions and parameters you can use in Financial Management components.)

8  Click **OK**.
Validating Business Rules, Business Rulesets, and Formula and Script Components from the System View

You validate business rules, rulesets, formula and script components to make sure they are syntactically correct before you deploy them to a Financial Management, Planning, or Essbase application. The validation process ensures that:

- All dimension members are valid for the dimension within the application.
- All functions exist, have the correct number of parameters, and are valid for the application type.
- All variable references in business rules are valid. For replacement variables, the variables are replaced with the correct strings first and then validated. For execution variables, the validation process ensures the variables are defined for the application, the applications within an application type, the plan type (Planning users only) or the database (Essbase users only), and/or the business rule (Planning and Essbase users only).
- There are no syntactic errors in the script generation.

Planning users only: If you are validating business rules that have runtime prompts with default values, the validation process ensures that all members in the runtime prompt are valid for the selected plan type and application and that there are no syntactic or semantic errors. If you are validating business rules that have runtime prompts without default values, no validation is performed.

Note: If you do not validate rules and rulesets prior to deployment, they are validated as part of the deployment process to ensure that they are syntactically correct.
To validate a business rule, a ruleset, or a formula or script component:

1. Log on to EPM Workspace, and launch Calculation Manager. See "Logging on to EPM Workspace and Accessing Calculation Manager" on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type and the application.

3. Do one of these tasks:
   - Financial Management users: To validate a ruleset, expand the calculation type and Rulesets.
   - Planning and Essbase users: To validate a ruleset, expand Rulesets.

   **Note:** For Financial Management applications, there is a Rulesets folder for each calculation type within the application. For Planning and Essbase applications, there is only one Rulesets folder for each application at the same level as the plan types and databases.

   - To validate a rule, formula, script, or template, expand the calculation type, plan type, or database, and Rules, Formulas, Scripts, or Templates, depending on the object you want to validate.

4. Do one of these tasks:
   - Right-click the object you want to validate, and select Validate.
   - Select the object you want to validate, and select Actions, Validate.

5. **Planning and Essbase users only:** In Validate Options, select whether you want to validate against Planning (for Planning rules) or Essbase (for Essbase rules), Performance Management Architect, or both. Then click OK.

   **Note:** If you are validating an object from a Classic Financial Management or a Classic Planning application, you can validate against only Financial Management or Planning. You cannot validate an object from a Classic application against a Performance Management Architect application.

6. Do one of these tasks:
   a. If the object is validated successfully, click OK.
   b. If there are errors, they are displayed. Fix the errors and validate the object again.

---

**Validating a Business Rule from the Rule Designer**

When you are creating a business rule or debugging a business rule, you can validate it quickly from within the Rule Designer.

- You can validate a Financial Management business rule from a Performance Management Architect application against Financial Management, Performance Management Architect, or both.
You can validate a Financial Management business rule from a Classic Financial Management application against Financial Management only.

You can validate a Planning business rule from a Performance Management Architect application against Planning, Performance Management Architect, or both.

You can validate a Planning business rule from a Classic Planning application against Planning only.

You can validate an Essbase rule from an Essbase block storage application against Essbase only.

To validate a business rule from within the Rule Designer:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and Rules.

3. Right-click the rule you want to validate, and select Open.

4. In the Rule Designer, select Actions, then Validate, and do one of these tasks:
   - If you are working with a Classic Financial Management or Planning application:
     - If you are working with a Financial Management rule, select Consolidation.
     - If you are working with a Planning rule, select Planning.

     **Note:** If you are working with business rules in Classic Financial Management and Planning applications, you can validate against only the application in which the rule is created.

   - If you are working with a Performance Management Architect application:
     - If you are working with a Financial Management rule, select EPMA, Consolidation, or Both. Then click OK.
     - If you are working with a Planning rule, select EPMA, Planning, or Both. Then click OK.

   - If you are working with an Essbase block storage application and rule, select Essbase.

If the rule validates successfully a message is displayed. If the rule does not validate, the errors are displayed.

---

**Deploying Business Rules and Business Rulesets**

You can deploy business rules and business rulesets to Planning and Essbase. You can deploy one or more business rules or business rulesets (known as a partial deployment), or you can deploy all of the business rules and rulesets in an application (known as a full deployment).

You can deploy only business rulesets to Financial Management. You can deploy one ruleset from each calculation type in the application; you cannot deploy individual rules.
If you are working with a Performance Management Architect application, you can also deploy rules and applications from within the Application Library of Performance Management Architect. See Part 2 of this guide.

After you deploy business rulesets to Financial Management, you can run calculations or consolidations from within data forms or data grids. After you deploy business rules and business rulesets to Planning, you can launch them from within data forms or independently from the Launch menu. After you deploy business rules and business rulesets to Essbase, you can launch them from Administration Services. See the Oracle Hyperion Financial Management User’s Guide, the Oracle Hyperion Planning User’s Guide, and the Oracle Essbase Administration Services Online Help.

Making Business Rules and Business Rulesets Deployable

If you want to deploy a subset of business rules and business rulesets in an application, you must make them deployable in the Deployment View. To make the rules and rulesets deployable, you select the check boxes next to their names in the Deployment View.

**Note:** If you want to deploy only one business rule or business ruleset, or all of the rules and rulesets in an application, you do not need to make them deployable in the Deployment View.

➢ To make business rules and business rulesets deployable:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. **From the System View, select View, Deployment View.**

3. **In the Deployment View, expand the Financial Management, Planning, or Essbase application type and the application that contains the rule or ruleset you want to deploy.**

4. **Expand the To Be Deployed folder to see a list of the rules and rulesets that can be deployed.**

5. **Select the check boxes next to the rules and rulesets you want to make eligible for deployment.**

**Note:** Before a rule or ruleset is deployed, it must be validated for syntactic accuracy. You can validate rules and rulesets manually using the Validate feature. (See “Validating Business Rules, Business Rulesets, and Formula and Script Components from the System View” on page 405. If you do not validate before you deploy, however, the rules and rulesets are validated automatically as part of the deployment process.

**Tip:** If you want to clear the check box next to a rule or ruleset to make it ineligible for deployment, left-click it or right-click it, and select Unmark Selected.
Deploying Business Rules and Business Rulesets from the Deployment View

You can deploy business rules and business rulesets from the Deployment View. You can also deploy one business rule or ruleset to Planning or Essbase from within the Rule Designer (for business rules) or the Ruleset Designer (for business rulesets). See “Deploying a Business Rule or Business Ruleset from the Rule or Ruleset Designer (Planning and Essbase users only)” on page 410.

If you are deploying to Financial Management, you can deploy one business ruleset for each calculation type in an application; you cannot deploy business rules to Financial Management.

To deploy business rules and business rulesets from the Deployment View:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. From the System View, select View, Deployment View.

   **Note:** If you are deploying to Planning or Essbase, you can also deploy from the System View.

3. In the Deployment View, expand the Financial Management, Planning, or Essbase application type.

4. Do one of these tasks:

   - **Planning and Essbase users:** To deploy all of the rules and rulesets within an application, right-click the application, and select Deploy.

     **Note:** When you deploy all of the rules and rulesets in an application (known as a full deployment), the folders containing the rules and rulesets are deleted from the Deployment View.

   - **Planning and Essbase users:** To deploy a subset of the business rules and business rulesets, expand the application and the To Be Deployed folder. Then perform these steps:

     a. If they are not selected, select the rulesets you want to deploy.

     b. Expand the plan types that contain rules you want to deploy.

     c. If they are not selected, select the rules you want to deploy.

     d. Right-click, and select Deploy.

   **Tip:** To deploy multiple rules or rulesets, use Ctrl + Click and Shift + Click to select them, right-click, and select Deploy.
Note: If you deploy a business rule with shortcuts to other applications, the business rule is deployed to each of the applications for which there is a shortcut. If you are working with a Performance Management Architect application, and you want to ensure that rules with shortcuts are successfully deployed to each application, in Performance Management Architect, use the Library Job Console to see the results of the deployment.

- **Financial Management users only**: To deploy business rule sets:
  a. Expand the application, the **To Be Deployed** folder, and the calculation types that contain rulesets you want to deploy.
  b. If they are not selected, select the rulesets you want to deploy. You can deploy one ruleset per calculation type.

  Note: Be sure to include the Generic_Ruleset for deployment.

  c. Right-click the application, and select **Deploy**. When you deploy, the Calculation Manager objects in .xml format are converted into .rle format and loaded into the Financial Management application.

  Tip: To deploy multiple rulesets, use Ctrl + Click and Shift + Click to select them, right-click, and select Deploy.

If the deployment is successful, a “Deployment was successful” message is displayed. If there are issues, and you are working with a Performance Management Architect application, the Performance Management Architect Job Task dialog is displayed with a link to the Library Job Console.

---

**Deploying a Business Rule or Business Ruleset from the Rule or Ruleset Designer (Planning and Essbase users only)**

After you design a business rule or ruleset, you can validate and deploy it from within the Rule Designer or Ruleset Designer.

1. To deploy a business rule or business ruleset from the Rule Designer or Ruleset Designer:
   1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
   2. From the System View, expand the Planning or Essbase application type and the application that contains the rule or ruleset you want to deploy.

      Note: You can also deploy Planning and Essbase rules and rulesets from the System View. Right-click the rule or rulesets, and select Deploy.

3. Do one of these tasks:
   * If you want to deploy a business rule, expand the plan type that contains the rule, then expand **Rules**.
If you want to deploy a business ruleset, expand **Rulesets**.

**Note:** For Planning and Essbase applications, the Rulesets folder is under the application; the Rules folder is under each plan type or database.

4 Right-click the rule or ruleset you want to deploy, and select Open.

5 From the **Rule Designer** or **Ruleset Designer**, select **Actions, Deploy**.

If the deployment is successful, a “Deployment was successful” message is displayed. If there are issues, and you are working with a Performance Management Architect application, the Performance Management Architect Job Task dialog is displayed with a link to the Library Job Console.

**Deploying Business Rules with Shortcuts (Planning and Essbase Users Only)**

If you have business rules with shortcuts, when you deploy the business rules to Planning and Essbase applications, a copy of the rule is deployed to each of the applications for which you created a shortcut.

➢ To deploy a business rule with shortcuts:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 From the System View, select **View, Deployment View**.

   **Note:** If you are deploying to Planning or Essbase, you can also deploy from the System View.

3 In the Deployment View, expand the Planning or Essbase application type, the application, the plan type or the database, and the **To Be Deployed** folder.

4 Right-click the rule you want to deploy, and select **Deploy All**.

**Deploying a Business Rule from the Ruleset Designer**

If you are working with a business rule within the Rule Designer, you may want to deploy it immediately to an application. You can do this from within the Rule Designer.

➢ To deploy a business rule from within the Rule Designer:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 In the System View, expand the Financial Management, Planning, or Essbase application type, the application, the calculation type, plan type, or database, and **Rules**.

3 Right-click the rule you want to deploy, and select **Open**.
Note: You can also right-click and select Deploy to deploy a business rule from the System View.

4 In the Rule Designer, select Actions, then Deploy, and do one of these tasks:

- If you are working with a Classic Financial Management or Planning application:
  - If you are working with a Financial Management rule, select **Consolidation**.
  - If you are working with a Planning rule, select **Planning**.

  **Note:** If you are working with business rules in Classic Financial Management or Planning applications, you can validate against only the application in which the rule is created.

- If you are working with a Performance Management Architect application:
  - If you are working with a Financial Management rule, select **EPMA, Consolidation**, or **Both**. Then click **OK**.
  - If you are working with a Planning rule, select **EPMA, Planning**, or **Both**. Then click **OK**.

- If you are working with an Essbase block storage application and rule, select **Essbase**.

If the rule validates successfully a message is displayed. If the rule does not validate, the errors are displayed.
You can launch Essbase business rules from within the System View or the Rule Designer of Calculation Manager, unlike Financial Management and Planning business rulesets and business rules, which you must launch in Financial Management and Planning, respectively.

To launch an Essbase business rule:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. In the System View, expand the Essbase application type, the application, the database, and Rules.

3. In the System View, do one of these tasks:
   - Right-click the business rule you want to execute, and select Execute.
   - Double-click the rule you want to execute. When the rule opens in the Rule Designer, select Actions, then Execute.
About Migrating Business Rules

After you upgrade applications from previous releases to this release, you need to migrate (Planning and Essbase) or import (Financial Management) business rules from prior releases into Calculation Manager.

In previous releases of Financial Management, you create and maintain business rules in Financial Management; in previous releases of Planning and Essbase, you create and maintain business rules in Business Rules.

For this release, if you are working with a Financial Management or Planning application that is upgraded to Performance Management Architect, a Classic Financial Management or Planning application (that is, one that is not upgraded to Performance Management Architect), or an Essbase block storage application, you can use Calculation Manager to create and maintain your business rules.

Migrating Business Rules from Business Rules to Calculation Manager (Planning Users Only)

To migrate Planning business rules and other objects from a previous release of Business Rules to Calculation Manager, you use the Migrate feature of Calculation Manager. When you migrate Business Rules objects to Calculation Manager, business rules are migrated as business rules, sequences are migrated as business rulesets, variables are migrated as variables, and macros are migrated as templates.

Note: If you have Business Rules projects, they are migrated directly to Planning when you migrate security.
Following are some considerations for migrating business rules from Business Rules to Calculation Manager:

- You migrate business rules from Business Rules to Calculation Manager by migrating the application to which they belong. You can migrate one application at a time.
- You can migrate a business rule only once, even if you modify it after you migrate it. However, you can use the Calculation Manager migration feature iteratively to migrate new business rules from Business Rules to Calculation Manager.
- To migrate business rules, they must meet these criteria:
  - They must not have been migrated.
  - They must have an outline that belongs to the application you are migrating.
  - They must be launchable for all locations in the application in Business Rules or be launchable for at least one of the plan types in the application in Calculation Manager.
- When you migrate business rules that are launchable for all locations in the application being migrated, this is what happens:
  - If an outline is selected in Business Rules, and the outline belongs to the application you are migrating, the business rules are migrated to the application and plan type specified in the outline. If no outline is selected in Business Rules, the business rules are migrated to a default application and plan type, which is specified by the user who is performing the migration in the Calculation Manager Migrate dialog.
  - The deployment status of the business rules is not migrated.
  - If business rules are migrated to the default application and plan type, no shortcuts are created in the migrated application.
- When you migrate business rules that are launchable for one or more locations in the application being migrated, this is what happens:
  - If an outline is selected in Business Rules, but it does not belong to the application you are migrating, the business rules are migrated to a default application and plan type, which is specified by the user performing the migration in the Calculation Manager Migrate dialog.
  - If an outline is selected in Business Rules, and it belongs to the application you are migrating, the business rules are migrated to the application and plan type specified in the outline. If no outline is specified, the business rules are migrated to the first plan type in the Calculation Manager application.
  - The deployment status of the business rule is set to “Deployed” in the Deployment View of Calculation Manager.
  - If a business rule has more than one launch location defined for the application in Business Rules, a shortcut is created only for one plan type in the Calculation Manager application, because rule names must be unique across all plan types in Calculation Manager.

Following are some considerations for migrating Capital Asset Planning and Workforce Planning business rules to Calculation Manager:
Oracle Hyperion Capital Asset Planning, Fusion Edition and Oracle Hyperion Workforce Planning, Fusion Edition business rules are migrated to the Capital Asset and Workforce plan types respectively, if the application you are migrating has Capital Asset and Workforce plan types enabled.

The deployment status is set to “Deployed” in the Deployment View of Calculation Manager.

A shortcut is created in the Capital Asset and Workforce plan types in the application in Calculation Manager only if the business rule was migrated previously.

Following are some considerations for migrating Business Rules sequences to Calculation Manager:

- You can migrate a sequence only once, even if you modify it after you migrate it.
- In Business Rules, a sequence can contain rules that can be launched across different applications. Calculation Manager also supports launching rule sets across different applications.
- In Business Rules, a business rule within a sequence can have multiple launch locations for the same application. In Calculation Manager, a business rule within a business ruleset can have only one launch location for the same application.
- In Business Rules, sequences do not have an outline.
- A sequence can be migrated if the following conditions are met:
  - All rules within the sequence (and within each of the nested sequences) have been migrated successfully.
  - For all rules in the sequence, if there is a launch location defined for the rule when it is launched as part of the sequence, the launch location should be one of the launch locations defined for the rule when it is launched by itself, and the rule should have been migrated to that location successfully. If both of these conditions are met, the sequence can be migrated.
  - Each rule within the sequence should have at least one launch location defined in Business Rules to which the rule has been migrated in Calculation Manager. If the launch location for a rule in the sequence is not one of the launch locations defined for the rule itself, the sequence cannot be migrated, because the launch location for the rule is unknown. Also, if a business rule in a sequence has All Locations set as its launch location in Business Rules, the sequence cannot be migrated.
  - If a sequence is eligible for migration, it is migrated to the application and is displayed in the System View of Calculation Manager, in the Rulesets folder at the application level.
  - When you migrate a sequence, its status in the Deployment View is set to “Deployed.”
  - If one or more of its rules fails to migrate, the sequence is migrated partially.

Following are some considerations for migrating variables from Business Rules to Calculation Manager:

- When you migrate a business rule with variables, the variables are automatically migrated. In Business Rules, variables are either global or local. In Calculation Manager, variables are
When global variables are migrated, they are global variables in Calculation Manager; when local variables are migrated, they are business rule variables in Calculation Manager.

**Note:** When you migrate a Business Rules global variable that already exists in Calculation Manager, you can change it from a global to an application variable.

- You can migrate a variable only once, even if you modify it after you migrate it.
- Variable information that is set at rule level is also migrated.
- Launch values assigned to variables at the sequence level are migrated to their equivalents in Calculation Manager.

Following are some considerations for migrating macros from Business Rules to Calculation Manager:

- You can migrate a macro only once, even if you modify it after you migrate it.
- A macro is migrated to a template in Calculation Manager.
- Parameters are migrated to design time prompts in Calculation Manager. Design time prompts are named parm1, parm2, parm3, and so on, and are of the String type.
- The macro core is migrated to a graphical script component.
- When macros are migrated to templates, the templates are placed in the first plan type of the migrated application.
- Macros with nested macros are not migrated.

Following are some considerations for migrating Essbase substitution variables:

- Essbase substitution variables at the application and plan type level are migrated the first time an application containing them is migrated. If the application is migrated again, the Essbase substitution variables are not migrated.
- Essbase substitution variables at the global level are not migrated.

**Note:** The Calculation Manager migration functionality migrates business rules and other objects; it does not migrate projects or launch security for any objects. To migrate projects and launch security to Planning, you must use a utility installed with Planning. (See the Oracle Hyperion Planning Administrator’s Guide.)

To migrate business rules from Business Rules to Calculation Manager:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. **In the System View, select Actions, Migrate.**
Note: You can also migrate business rules from the List View and the Custom View. To open one of these views, select View, List View or View, Custom View.

3 In the Migrate dialog, select an application to migrate from Business Rules.

Note: The application must be deployed.

4 In Application, select the default application to which to migrate business rules. You must specify a default application for business rules that are launchable for the application being migrated, but for which no outline was selected in Business Rules or the selected outline does not belong to the current application.

5 In Plan Type, select the default plan type.

6 In Migrate Options, select Migrate global variables into an application if you want Business Rules global variables that have the same name as global variables in Calculation Manager to be migrated as application variables.

7 Select Overwrite existing objects if you want the objects you migrate to overwrite the objects that already exist in the application and plan type.

8 Select Skip existing objects if you want the objects you migrate to be added to the objects that already exist in the application and plan type.

9 Select Error out for duplicates if you want to stop the migration process if the objects you migrate duplicate objects that already exist in the application and plan type.

10 Click OK.

### Migration Use Cases

The following two tables describe the various application and plan type combinations during migration of rules to the locations Performance Management Architect App1 and Performance Management Architect App2. For purposes of this example, App1 and App2 are existing Performance Management Architect applications; App3 does not exist yet.

#### Table 31 Migration of App1

<table>
<thead>
<tr>
<th>Business Rules artifact</th>
<th>Design location in Business Rules</th>
<th>Launch location in Business Rules</th>
<th>System View location in Calculation Manager</th>
<th>Deployment View location in Calculation Manager</th>
<th>Migrated To</th>
<th>Shortcut In</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>App1/pt1</td>
<td>None since the launch location does not match the design app</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>R2</td>
<td>Empty</td>
<td>All Locations</td>
<td>Default application/ Default plan type</td>
<td>None</td>
<td>Default application</td>
<td>None</td>
</tr>
<tr>
<td>R3</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>Skipped</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>App1/pt2</td>
<td>None</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>Business Rules artifact</td>
<td>Design location in Business Rules</td>
<td>Launch location in Business Rules</td>
<td>System View location in Calculation Manager</td>
<td>Deployment View location in Calculation Manager</td>
<td>Migrated To</td>
<td>Shortcut In</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------</td>
<td>----------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>R5</td>
<td>App3/pt1</td>
<td>All locations</td>
<td>Default application/Default plan type</td>
<td>None</td>
<td>Default application</td>
<td>None</td>
</tr>
<tr>
<td>R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>App1/pt1</td>
<td>None</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>R7</td>
<td>&lt;empty&gt;</td>
<td>App3/pt1</td>
<td>Skipped</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>App1/pt1</td>
<td>App1/pt1</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>R9</td>
<td>&lt;empty&gt;</td>
<td>App1/pt2, App1/pt1</td>
<td>App1/pt1</td>
<td>App1/pt1</td>
<td>App1</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 32  Migration of App2

<table>
<thead>
<tr>
<th>Business Rules artifact</th>
<th>Design location in Business Rules</th>
<th>Launch location in Business Rules</th>
<th>System View location in Calculation Manager</th>
<th>Deployment View location in Calculation Manager</th>
<th>Migrated To</th>
<th>Shortcut In</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>Already migrated</td>
<td>App2/pt1</td>
<td>App1</td>
<td>App2/pt1</td>
</tr>
<tr>
<td>R2</td>
<td>&lt;empty&gt;</td>
<td>All locations</td>
<td>Already migrated</td>
<td>None</td>
<td>Default application from previous run</td>
<td>None</td>
</tr>
<tr>
<td>R3</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>App2</td>
<td>None</td>
</tr>
<tr>
<td>R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>Already migrated</td>
<td>App2/pt1</td>
<td>App1</td>
<td>App2/pt1</td>
</tr>
<tr>
<td>R5</td>
<td>App3/pt1</td>
<td>All locations</td>
<td>Already migrated</td>
<td>None</td>
<td>Default application from previous run</td>
<td>None</td>
</tr>
<tr>
<td>R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>Skipped</td>
<td>None</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>R7</td>
<td>&lt;empty&gt;</td>
<td>App3/pt1</td>
<td>Skipped</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

The following two tables describe the various application and plan type combinations during migration of sequences to the locations Performance Management Architect App1 and Performance Management Architect App2. For purposes of this example, App1 and App2 are existing Performance Management Architect applications; App3 does not exist yet.
### Table 33  Migration of App1

<table>
<thead>
<tr>
<th>Business Rules Artifact</th>
<th>Sequence Migrated to</th>
<th>Launch Locations</th>
<th>Overridden Launch location</th>
<th>System View location in Calculation Manager</th>
<th>Deployment View location in Calculation Manager</th>
<th>Migrated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1, R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS1, R2</td>
<td>Default app (for example, App1/pt1)</td>
<td>All locations</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS1, R3</td>
<td>None</td>
<td>App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS2, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>Skipped since the over loaded launch location for R4 is not where R4 was migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS2, R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for R4 is not where R4 was migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS2, R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for R4 is not one of the launch locations</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS3, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>App1/pt2</td>
<td>Skipped since the over loaded launch location for R4 is not one of the launch locations</td>
<td>App1</td>
<td>App1</td>
</tr>
<tr>
<td>RS3, R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for R4 is not one of the launch locations</td>
<td>App1</td>
<td>App1</td>
</tr>
<tr>
<td>RS3, R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for R4 is not one of the launch locations</td>
<td>App1</td>
<td>App1</td>
</tr>
<tr>
<td>Business Rules Artifact</td>
<td>Sequence Migrated to</td>
<td>Launch Locations</td>
<td>Overridden Launch location</td>
<td>System View location in Calculation Manager</td>
<td>Deployment View location in Calculation Manager</td>
<td>Migrated to</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------</td>
<td>-----------------</td>
<td>---------------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>RS4, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since R4 launch location is not the same as where R4 was migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS4, R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since R4 launch location is not the same as where R4 was migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS4, R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since R4 launch location is not the same as where R4 was migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5, R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5, R2</td>
<td>Default app (for example, App1/pt1)</td>
<td>All Locations</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5a, R3</td>
<td>None</td>
<td>App2/Pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5a, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Table 34** Migration of App2

<table>
<thead>
<tr>
<th>Business Rules Artifact</th>
<th>Sequence Migrated to</th>
<th>Launch Locations</th>
<th>Overridden Launch location</th>
<th>System View location in Calculation Manager</th>
<th>Deployment View location in Calculation Manager</th>
<th>Migrated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1, R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS1, R2</td>
<td>Default app from previous run (for example, App1/pt1)</td>
<td>All locations</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS1, R3</td>
<td>App2/pt1</td>
<td>App2/Pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Business Rules Artifact</td>
<td>Sequence Migrated to</td>
<td>Launch Locations</td>
<td>Overridden Launch location</td>
<td>System View location in Calculation Manager</td>
<td>Deployment View location in Calculation Manager</td>
<td>Migrated to</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------</td>
<td>------------------</td>
<td>---------------------------</td>
<td>--------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>RS2, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>App2/pt1</td>
<td>Skipped since the over loaded launch location for the R4 and R6 launch location is not where rules were migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS2, R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for the R4 and R6 launch location is not where rules were migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS2, R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the over loaded launch location for the R4 and R6 launch location is not where rules were migrated to</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS3, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R4 was not where it was migrated to</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>RS3, R6</td>
<td>App1/pt1</td>
<td>App3/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R4 was not where it was migrated to</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>RS3, R8</td>
<td>App1/pt1</td>
<td>App1/pt2, App1/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R4 was not where it was migrated to</td>
<td>App1</td>
<td>None</td>
</tr>
<tr>
<td>RS5, R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since not all rules are migrated</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5, R1</td>
<td>App1/pt1</td>
<td>App1/pt2, App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5, R2</td>
<td>Default app from previous run (for example, App1/pt1)</td>
<td>All Locations</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
To migrate Financial Management business rules from a previous release of Financial Management to Calculation Manager, you use the Import feature of Calculation Manager.

When you import Financial Management business rules, they are imported as Visual Basic script rule files (.rle files) with SUB statements. Each SUB statement in the rule file is converted into a Calculation Manager script component for the rule and rule set of the SUB statement’s calculation type.

Following is a list of the valid SUB statement types:

- SUB Calculate
- SUB Consolidate
- SUB Translate
- SUB Allocate
- SUB Input
- SUB NoInput
- SUB Dynamic
- SUB Transactions
- SUB EquityPickUp
- SUB Global

For each SUB statement of a valid calculation type, a ruleset containing one business rule with one script component is created. If there is a SUB statement in the rule file that is not one of the valid calculation types, or if there are functions, they are converted into the Generic calculation type. For example, if there is a SUB statement, Write_To_File(), in the rule file, it is converted to the Generic calculation type, because it is not one of the defined calculation types.

Following are the possible rulesets, rules, and script components that may be created during migration from Financial Management to Calculation Manager:

<table>
<thead>
<tr>
<th>Business Rules Artifact</th>
<th>Sequence Migrated to</th>
<th>Launch Locations</th>
<th>Overridden Launch location</th>
<th>System View location in Calculation Manager</th>
<th>Deployment View location in Calculation Manager</th>
<th>Migrated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS5a, R3</td>
<td>App2/pt1</td>
<td>App2/Pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>RS5a, R4</td>
<td>App1/pt2</td>
<td>App2/pt1</td>
<td>&lt;empty&gt;</td>
<td>Skipped since the launch location for R2 is not known</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Sub Calculate

- Ruleset
  - Name: Calculate_Ruleset
  - Calc type: Calculate
  - Contains a rule named Calculate_Rule

- Rule
  - Name: Calculate_Rule
  - Calc type: Calculate
  - Contains a script component named Calculate_Component

- Script component
  - Name: Calculate_Component
  - Calc type: Calculate
  - Contains the corresponding Visual Basic script statement in the script component

Sub Translate

- Ruleset
  - Name: Translate_Ruleset
  - Calc type: Translate
  - Contains a rule named Translate_Rule

- Rule
  - Name: Translate_Rule
  - Calc type: Translate
  - Contains a script component named Translate_Component

- Script component
  - Name: Translate_Component
  - Calc type: Translate
  - Contains the corresponding Visual Basic script statement in the script component

Sub Consolidate

- Ruleset
  - Name: Consolidate_Ruleset
  - Calc type: Consolidate
  - Contains a rule called Consolidate_Rule

- Rule
  - Name: Consolidate_Rule
  - Calc Type: Consolidate
• Contains a script component called Consolidate_Component

• Script component
  • Name: Consolidate_Component
  • Calc Type: Consolidate
  • Contains the corresponding Visual Basic script statement in the script component

Sub Dynamic
• Ruleset
  • Name: Dynamic_Ruleset
  • Calc type: Dynamic
  • Contains a rule called Dynamic_Rule

• Rule
  • Name: Dynamic_Rule
  • Calc Type: Dynamic
  • Contains a script component called Dynamic_Component

• Script Component
  • Name: Dynamic_Component
  • Calc Type: Dynamic
  • Contains the corresponding Visual Basic script statement in the script component

Sub Input
• Ruleset
  • Name: Input_Ruleset
  • Calc type: Input
  • Contains a rule called Input_Rule

• Rule
  • Name: Input_Rule
  • Calc Type: Input
  • Contains a script component called Input_Component

• Script Component
  • Name: Input_Component
  • Calc Type: Input
  • Contains the corresponding Visual Basic script statement in the script component

Sub NoInput
• Ruleset
- Name: NoInput_Ruleset
- Calc type: NoInput
- Contains a rule called NoInput_Rule

- Rule
  - Name: NoInput_Rule
  - Calc Type: NoInput
  - Contains a script component called NoInput_Component

- Script Component
  - Name: NoInput_Component
  - Calc Type: NoInput
  - Contains the corresponding Visual Basic script statement in the script component

Sub Transactions

- Ruleset
  - Name: Transactions_Ruleset
  - Calc type: Transactions
  - Contains a rule called Transactions_Rule

- Rule
  - Name: Transactions_Rule
  - Calc Type: Transactions
  - Contains a script component called Transactions_Component

- Script Component
  - Name: Transactions_Component
  - Calc Type: Transactions
  - Contains the corresponding Visual Basic script statement in the script component

Sub EquityPickUp

- Ruleset
  - Name: EquityPickUp_Ruleset
  - Calc type: EquityPickUp
  - Contains a rule called EquityPickUp_Rule

- Rule
  - Name: EquityPickUp_Rule
  - Calc Type: EquityPickUp
  - Contains a script component called EquityPickUp_Component

- Script Component
Sub Allocate

- Ruleset
  - Name: Allocate_Ruleset
  - Calc type: Allocate
  - Contains a rule called Allocate_Rule

- Rule
  - Name: Allocate_Rule
  - Calc Type: Allocate
  - Contains a script component called Allocate_Component

- Script Component
  - Name: Allocate_Component
  - Calc Type: Allocate
  - Contains the corresponding Visual Basic script statement in the script component

Sub Generic

- Ruleset
  - Name: Generic_Ruleset
  - Calc type: Generic
  - Contains one or more rules named <name of non-major sub>_Rule

- Rule
  - Name: <name of non-major sub>_Rule
  - Calc type: Generic
  - Contains a script component named <name of non-major sub>_Component

- Script component
  - Name: <name of non-major sub>_Component
  - Calc type: Generic
  - Contains the corresponding Visual Basic script statement in the script component

SUB Global

- Ruleset
  - Name: Global_Ruleset
  - Calc type: Global
- Contains one or more rules named Global_Rule

- **Rule**
  - Name: Global_Rule
  - Calc Type: Global
  - Contains a script component called Global_Component

- **Script component**
  - Name: Global_Component
  - Calc Type: Global
  - Contains the corresponding Visual Basic script statement in the script component

To migrate business rules from Financial Management to Calculation Manager:

1. **Log on to EPM Workspace, and launch Calculation Manager.** See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2. **In the System View, select File, Import.** To migrate Financial Management objects from a prior release into Calculation Manager, you must import them in a file. See “Importing Business Rules, Business Rulesets, Templates, and Formula and Script Components” on page 433.

After all of the SUB statements in the file are converted to rulesets, rules, and script components, and migrated to Calculation Manager, you can view the calculation objects in Calculation Manager.

If you want to convert the script components to graphical objects, you can create new business rules and formula components in the Rule Designer. You can have a combination of graphical rules and script components. If you do not convert the script components to graphical objects, you can deploy them after you migrate them to Calculation Manager.
Exporting and Importing
Business Rules, Business Rulesets, Templates, and Formula and Script Components

About Exporting and Importing

Within Calculation Manager, you can export all of the objects in a Financial Management, Planning, or Essbase application; you can also export individual business rules, business rulesets, templates, and formula and script components within an application.

After you export applications and objects, you can import them into other Financial Management, Planning, or Essbase applications within Calculation Manager. For example, you may want to export business rules and business rulesets from a Financial Management application on a production computer and import them into another Financial Management application on a test computer.

You can also export business rules, sequences, macros, and variables from Oracle’s Hyperion® Business Rules, and import them into Calculation Manager.

Exporting Business Rules, Business Rulesets, Templates, and Formula and Script Components

You can export objects from any view within Calculation Manager: the System View, the Custom View, and the Deployment View. When you export an application, an object, or multiple objects, they are exported to an xml file that can be imported into other applications within Calculation Manager.

Note: You can export one object or multiple objects from Calculation Manager.
To export objects from Calculation Manager:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 From the System View, expand the Financial Management or Planning application type, and the application that contains the objects you want to export.

3 Do one of these tasks:
   - Financial Management users only: To export Financial Management rulesets, expand the calculation type and the Rulesets that contains the ruleset you want to export.
   - Planning users only: To export Planning rulesets, expand Rulesets.
   - To export rules, formulas, scripts, or templates, expand the calculation or plan type, then expand Rules, Formulas, Scripts, or Templates.

4 Do one of these tasks:
   - If you want to export one object only, right-click it, and select Export.
   - If you want to export multiple objects, select the objects you want to export, right-click, and select Export. Use Shift + Click and Ctrl + Click to select contiguous or non-contiguous objects within different calculation or plan types, different object types (for example, business rules and formulas), and different applications within an application type (Financial Management or Planning).

   After you select Export, you are prompted to open or save the generated .xml file.

5 In File Download, do one of these tasks:
   - If you want to view the contents of the generated .xml file, select Open.
   - If you want to save the generated .xml file without first viewing it, select Save, enter a name for the file (or accept the default), and click Save again.

**Exporting Applications**

You can export one or more applications from Calculation Manager. When you export applications, the application content is saved to an xml file.

To export applications:

1 Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.

2 From the System View, expand the Financial Management or Planning application type.

3 Do one of these tasks:
   - If you want to export one application only, right-click it, and select Export.
   - If you want to export multiple applications, select the applications you want to export, right-click, and select Export. Use Shift + Click and Ctrl + Click to select contiguous or non-contiguous applications within the same application type (Financial Management or Planning).
After you select Export, you are prompted to open or save the generated .xml file.

4  In File Download, do one of these tasks:
   ● If you want to view the contents of the generated xml file, select **Open**.
   ● If you want to save the generated xml file without viewing its contents first, select **Save**, enter a name for the file (or accept the default), and click **Save** again.

---

**Importing Business Rules, Business Rulesets, Templates, and Formula and Script Components**

After you export objects from Business Rules (see the *Hyperion Business Rules Administrator's Guide*) and export objects and applications from Calculation Manager, you can import them into other applications within Calculation Manager. To import objects into Calculation Manager, they must be in one of these file types:

- **.xml**, a file that contains the Calculation Manager objects in xml format
- **Planning users only**: **.csc**, a file that contains the Calculation Manager objects in Essbase calc script format
- **Financial Management users only**: **.cmo**, a file that contains the Calculation Manager objects in ASCII text format
- **Financial Management users only**: **.rle**, a file that contains the Calculation Manager objects in Visual Basic format

To import objects into Calculation Manager:

1. Log on to EPM Workspace, and launch Calculation Manager. See “Logging on to EPM Workspace and Accessing Calculation Manager” on page 228.
2. From the System View, expand the Financial Management or Planning application type.
3. Select the application into which you want to import the objects.
4. Select **File**, **Import**.
5. In **Import**, enter or select a file to import.
6. Click **Update Details** to enter a Financial Management or Planning application and calculation or plan type into which to import the file.
   - If the file is a **.csc** file, you must enter location details.
   - If the file is an **.xml** file, you do not have to enter location details, because the location details are in the import file itself.
   - If the file is an **.rle** file, and you enter location details, the key word, `app_name=<name of the application>` must be on the first line of the .rle file. For example, `app_name=Statutory`.
   - If the file is a **.cmo** file, the application information is included in the key word.
**Note:** If you use Update Details to enter an application, and calculation or plan type, name into which to import the file, this location overrides the location in the import file itself. If no location information is contained in the import file, you must use Update Details to enter location information; without location information, the import fails.

7 Under **Import Options**, select one of these options:

- **Overwrite existing objects**: The objects you import replace the objects in the application and calculation or plan type.
- **Skip existing objects**: The objects you import are added to the objects in the application and calculation or plan type.
- **Error out for duplicates**: If the objects you import duplicate objects that already exist in the application and calculation or plan type, the names of the duplicate objects are written to the log file, no objects are imported, and the import process stops.

8 Click **Import**.
Part IV

Synchronizing Data

In Synchronizing Data:

- Synchronizing Data
Understanding Data Synchronization

Data synchronization enables you to synchronize and map data between Hyperion applications, interface tables, and external files.

Tasks enabled by the Data Synchronization module:

- Create and modify synchronizations
- Select source and destination applications or files (external sources for source only)
- Define mappings between sources and destinations
- Validate synchronizations
- Execute synchronizations
- View logs of synchronization activities

The Data Synchronization module enables you to create synchronizations between Financial Management, Planning, Profitability and Cost Management, Essbase (ASO), and Essbase (BSO) as destinations, and the following sources:

- Financial Management
- Planning
- Profitability and Cost Management
- Essbase BSO
- External source (flat file)
- Interface table
Synchronizing Data

Performance Management Architect enables you to synchronize data in three locations:

- Application Library ("Synchronizing Applications in the Application Library" on page 438)
- Data Flow ("Viewing the Data Flow" on page 198)
- Data Synchronizer ("Synchronizing Applications in the Data Synchronizer" on page 438)

Using Hyperion Applications as Sources

You can synchronize applications in the Application Library or Data Synchronizer.

Synchronizing Applications in the Application Library

You can synchronize applications in the Application Library if two applications are selected and your user name is assigned the Create Integrations access role. See the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

To synchronize data in the Application Library:

1. Select the source application.
2. Press [Ctrl] and select the destination application.
3. Right-click and select Synchronize.

Note: If you are synchronizing a Planning application, you are prompted to select the plan type.

The dimension mapping is displayed. See “Mapping Dimensions” on page 444.

Synchronizing Applications in the Data Synchronizer

To synchronize data in the Data Synchronizer:

1. Select Navigate, Administer, Data Synchronization.
2. Select File, New, Synchronization.
   The New Synchronization wizard is displayed.
3. Select Hyperion Application, and click Next.
4. Select the source application, and click Next.
5. Perform an action:
   - If you synchronize two Financial Management applications, click Finish and omit steps 6–8.
   - If you synchronize a Planning source or destination application, click Next.
The Select Plan Types dialog box is displayed.

Data can be shared between plan types. For example, the Revenue plan may include sales detail accounts that rollup into a Total Product Sales account. You can set up the P & L plan to include the Total Product Sales account, and omit the sales detail accounts. Thus, you can bring the data value for Total Product Sales into your P & L plan, without the account detail and make the database for your P & L plan smaller and more efficient.

6  Select a plan type and click Finish.

The Dimension Mapping is displayed.

7  Click .
The Save Data Synchronization dialog box is displayed.

8 Enter a Name and Description and click OK.

After you save the synchronization, you can map dimensions. See “Mapping Dimensions” on page 444.

Synchronizing Multiple Currency Planning Applications

You can synchronize multiple currency Planning applications.

For example, you may want to link a Financial Management Value (source) to HSP_Rates (destination). For every row that Financial Management generates, two rows are returned to Planning.

In this instance, the Financial Management row


is transformed into


The reverse scenario works similarly. If you synchronize from Planning to Consolidation applications and you map HSP_Rates to Consolidation Value, the two rows are merged into one row (reverse of the example). Otherwise, the rows are unchanged, and every row from the source is sent to the destination (after metadata and data translation).

**Note:** The generation of the new rows or merging of the original rows occurs immediately, before data is sent to the destination. All metadata and data transformations occur before the auto-generation or merging of the rows.

To synchronize multi-currency applications, right-click the HSP_Rates dimension and select Generate Currency Members.

If you synchronize an application with a multi-currency Planning application and the HSP_Rates dimension is linked, the HSP_Rates dimension the right-click menu displays “Generate Currency Members.”

**Note:** Synchronizing multi-currency applications is available for one-to-one mappings and not available if HSP_Rates is linked to multiple dimensions.

When mapping Financial Management to Planning, it is expected that the Value dimension in Financial Management be mapped to HSP_Rates in Planning and a Default member “Local” should be assigned to the Currency dimension.
Using Hyperion Data Interface Tables as Sources

Interface tables enable you to bring information into the Hyperion schema through database operations (SQL loads or leveraging Hyperion data integration products). After information is stored in interface tables, the standard mapping and load mechanisms provided within data synchronization can be used to bring the information into the respective Hyperion product. Interface tables are useful in situations where you do not want to pre-format text files for flat file loads and want the power and flexibility of a relational database for staging information into the Hyperion product suite. The following sections provide additional detail on using data interface tables as sources:

- “Defining Interface Areas” on page 441
- “Creating Synchronizations” on page 442

Defining Interface Areas

Before you create synchronizations, by using an interface area as the source, you must create an interface area.

► To create interface areas:

1. **Select File, New, Data Interface Area Definition.**

   ![Data Interface Area Mapping Wizard]

   2. Select the interface table source, database table that contains the data to import, and the column that contains the data values for each row, and click Next.

   3. Define the dimension by selecting a column on the left and entering the dimension name on the right. For example, Col1 is displayed on the left, and Scenario is the dimension name on the right.

     **Tip:** Click to remove a column.

   4. Click Next.
Enter the interface table name and description and Finish.

Creating Synchronizations

After you create an interface area, you can create a synchronization that uses an interface table as the source.

Note: You must define the interface table before creating a synchronization using an interface table as the source. See “Defining Interface Areas” on page 441.

To create synchronizations:
1. From the Data Synchronizer, select File, New, Synchronization.
2. Select Hyperion Data Interface Area.
3. Click Next.
4. Select a source—interface area, database table to import, and the column that contains the data for each row—then click Next.
5. Define the dimensions—select the column and enter the dimension name—then, click Next.
6. Enter the name of the interface area and optionally enter a description, then click Finish.

Using External Files as Sources

You can define external files to use as sources in data synchronizations. Data Synchronization supports a delimited file with data in the last column, and does not support fixed length fields. You must enter all mapping rules and filters pertaining to the flat file source.

Before you create a synchronization that uses an external file as the source, you must define the external file.
To define external files:

1. **Select File, New, External File Definition.**

   The External File Mapping Wizard is displayed.

2. **Perform all actions:**
   - Select the Delimiter—the character that separates the fields of external files. You can use a semicolon (;), comma (,), space, or tab as the file delimiter. You can also specify a delimiter using the “Other” field.
   - Select the Quote character—the character that identifies text values. For example, if the quote character is “ (double quotation marks), the parser expects all members to be enclosed in double quotation marks. If the parser finds text values that are not enclosed in the double quotation marks the parser returns an error.
   - Enter the number of Header Lines to Skip. For example, an external file may have headings such as Name, Address, City, State, and ZipCode to skip.

3. **Click Next.**

4. **Perform an action to preview a file:**
   - Click , click Browse, select the file, and click Upload.

   Select Specify a file URL to preview and enter a URL; for example, `file:///c:/data/previewfile.csv`.

   Because you specify the format of the external file, you are not constrained to a rigid format. However, remember the following rules:
   - Every line must contain the same number of columns.
   - Every line must have a member value for each dimension (no blank values).
   - The last column of every line is the value for the intersection (text or numeric value).

5. **Click Preview Sample File.**

   When you preview a file, the options specified in the wizard are applied so you can see how the options affect the data.

6. **Click Next.**
7 Enter the number of dimensions in the file, then click Update.

8 Enter the name for each dimension, then click Next.

9 Enter the external file name, optionally enter a description, then click Finish.

**Mapping Dimensions**

After you create a synchronization, you must map the dimensions that comprise each source and destination so that the synchronization can recognize all relevant elements. When defining a detailed synchronization, you can create links, leverage a predefined mapping table, or assign default values to dimensions that are not required to be mapped.

➢ To map dimensions:

1 If you created a new synchronization, the Dimension Mapping is automatically displayed. Otherwise, to access the Dimension Mapping, in the Data Synchronizer, right-click a synchronization and click Edit. The Dimension Mapping is displayed.
You can use the Dimension Mapping to create, modify, or delete links between source and destination dimensions. Data Synchronization automatically links common dimensions between applications. You can drag and drop to create or change links between source and destination dimensions dynamically.

2 Create a link between a source and destination dimension by performing an action:

- Drag the dimensions that you want to map. For example, you can drag the Accounts dimension of the source application to the Accounts dimension of the destination application.
- Right-click the source dimension, and select Start New Link. Right-click the destination dimension, and select End Link.

**Note:** You can create one-to-one, one-to-many, or many-to-one relationships between source and destination dimensions.

A link can be static or you can apply a mapping table to a link to further define the relationship between the two dimensions. See “Creating Mapping Tables in the Dimension Mapping” on page 450.

The line types represent relationships between the source and destination dimensions:
- **Solid line**—No mapping table is assigned. A solid line is valid for one-to-one mappings and one-to-many mappings.
- **Dotted line**—A mapping table is associated with the relationship. See “Creating Mapping Tables in the Dimension Mapping” on page 450.
The following figure shows a synchronization with one-to-one mappings and two mappings with a mapping table.

The links are interactive, in that you can select a link to see a summary of the relationship defined between the linked dimensions. The summary includes:

- Source Dimension
- Destination Dimension
- Relationship Type (member relationship—for example, one-to-one or mapping table defined)
- Filter Summary
- Default Member Selection

3 Optional: To remove a link, right-click a link and select Remove Link.

After you define mappings you can optionally filter dimensions, define mappings, and assign default members. Then, when finished, you must save the synchronization. See “Filtering Dimensions” on page 447, “Creating Mapping Tables in the Dimension Mapping” on page 450, “Assigning Default Members” on page 448, and “Saving Synchronizations” on page 449.
Filtering Dimensions

When you create relationships between dimensions, you can also restrict the set of members available from the source application. The filter is applied at synchronization execution against the source destination members. Some instances require filtering. For example if you move data from Entity_1 in the source to Entity_2 in the destination with a January to February Period mapping, a filter on the source is required to extract only from Period—January; otherwise, results may be unpredictable.

Filtering constraints:

- Filters are not supported for flat files.
- Function filters are not supported for interface tables; however, EQUAL and LIKE are supported.

To filter dimensions:

1. **Right-click a dimension, and select Create Filter.**

   The Filter Criteria dialog box is displayed.

2. **Select a filter, EQUAL, LIKE, or FUNCTION.**

   **Note:** You can create multiple filter selections, by delimiting each entry with a semicolon; for example, Actual; Budget.

   - **EQUAL**—any valid member, such as Actual for the Scenario dimension.
   - **LIKE**—use wildcards in the filter:
     - * for multiple character (Only use * wildcard characters at the end of a string)
     - ? for single character
     
     For example, ?tual would match Actual, *tual would match Actual.
   - **FUNCTION**—use any valid member selection function, such as BottomOfHierarchy() retrieves the base level members for the dimension. See Appendix G, “Member Query Functions Used by the Data Synchronizer” for a list of functions that Performance Management Architect supports.

3. **Enter the member to filter by or click .**

   The Member Selector is displayed.

4. **Select multiple members to filter by and click . Then, click OK.**
Note: Multiple functions are not supported.

The Filter Criteria dialog box is displayed.

5 Click OK.

When a filter is applied in the dimension mapping, a funnel is displayed next to the dimension.

**Assigning Default Members**

If a relationship is not defined for a dimension on the destination application, one member needs to be identified to complete the linking process. This member is used to complete each data point intersection at synchronization execution time.

To assign default members:

1 In the Destination application in which you want to assign a default member, right-click a dimension that has not been mapped.

2 Select Assign Default Member.

   The Member Selector is displayed.

3 Select the member to assign as the default, and click OK.

   A green check mark is displayed next to the dimension of the default member.

   Note: To remove a default member, right-click the dimension that contains the default member, and select Remove Default Member.

**Inserting Mapping Tables**

Mapping tables are mappings that you can reuse in data synchronizations. If you have created mapping tables, you can insert them into a synchronization. For information on creating mapping tables, see “Working with Mappings” on page 449.

To insert mapping tables:

1 Click 

   The Insert Mapping Table dialog box is displayed.
2 Select a mapping table to insert, and click OK.

When a mapping table is used in a dimension mapping, the link is a dotted line.

**Editing Mappings**

If you are editing an existing mapping table, the Mapping Table Designer displays the source application, destination application, and the mapped dimensions relationship.

- To edit mappings:
  1. Right-click a mapping (dotted line link).
  2. Select *Edit Mapping*.
      - The Mapping Table Designer is displayed.
  3. Edit the mapping. Click *Next* to move through the screens, and click *Finish*.

**Saving Synchronizations**

You must save synchronizations before validating and executing them.

- To save a synchronization:
  1. In the Dimension Mapping, click .
      - The Save Data Synchronization dialog box is displayed.
  2. Enter the name and description, and click *OK*.

**Working with Mappings**

You can use mapping tables to define relationships between dimensions. Mappings are used in scenarios where you can define the mapping once and reuse it in multiple synchronizations.

When you create mapping tables, you can select multiple source application dimensions, but only one destination application dimension. The relationship displayed signifies that source
dimension(s) members are used as members in the destination dimension. You can define one-to-one, one-to-many, and many-to-one relationships. Data Synchronization leverages:

- mapping tables, to perform simple or complex transformations, and
- a transformation engine to map from external sources or from application to application.

You use the Mapping Table Designer to create mapping tables. See “Creating Mapping Tables in the Dimension Mapping” on page 450 and “Creating Mapping Tables in the Data Synchronizer” on page 453.

You can edit mapping tables in the Data Synchronizer, see “Editing Mapping Tables” on page 457.

**Creating Mapping Tables in the Dimension Mapping**

The following procedure provides step-by-step information on defining mappings while linking dimensions in the Dimension Mapping. The source and destination applications are automatically selected, so the first screen of the Mapping Table Designer is skipped.

➤ To create a mapping table while mapping dimensions:

1. **In the Dimension Mapping, right-click a link, and select Define Mapping.**

   The Mapping Table Designer (Map Data) is displayed.

   Each row represents a mapping rule between the source and destination application dimensions. You double-click a cell to enter values directly into the cells or click a cell and select Pick Member to select a member.

   When entering source values directly into a cell, you can use symbols as wild cards and indicators.

   **Table 35 Source Dimension Rule Syntax**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>Matches on one or more characters. For example, Acc* matches Acc100, Acc101, and so on.</td>
</tr>
<tr>
<td>?</td>
<td>Matches on one character. For example, Acc??? matches Acc100 but not Acc1000.</td>
</tr>
<tr>
<td>~</td>
<td>Matches on a range of characters. For example, Acc100~Acc200 matches on Acc100, Acc101, and so on up to Acc200. If both fields are numeric, the range is evaluated numerically. If either field is alphanumeric, the range is evaluated lexicographically.</td>
</tr>
<tr>
<td>\</td>
<td>Indicates that the next character is interpreted literally. For example, Acc* matches only and precisely Acc*.</td>
</tr>
<tr>
<td>^</td>
<td>Indicates a space. Required—for leading and trailing spaces. Optional—for spaces displayed in the middle of inputs.</td>
</tr>
<tr>
<td>{NULL}</td>
<td>Matches on an empty field.</td>
</tr>
</tbody>
</table>
Destination dimensions use different rule syntax. The source rule syntax defines which intersections match the rule. When a row is passed through the translation engine, each source rule is checked to see if the member fits within the rules defined. If a match is found, the destination rule is applied to that member. The destination rules define the modifications to be made to the members that match the source rules. The rule syntax in destination dimensions accepts the following entries:

- Member names
- Source member names in combination with literal strings
- Contents of wild cards

### Table 36 Destination Dimension Rule Syntax

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>[]</td>
<td>Destination values which can be concatenated.</td>
</tr>
<tr>
<td>[field#]</td>
<td>Transfer value of the indicated input field in its entirety. An input field is identified by its sequence number based on the order of definition for the input field. For example, [1] indicates that the value of the first input is the output. FY[1] [2] indicates that the output value is the string FY concatenated with the value of input 1 and the value of input 2, so if input 1 is Years, and input 2 is Months, the result is FYYearMonths.</td>
</tr>
<tr>
<td>[field#,* ]</td>
<td>The value of * from the input field. For example, if Output1 is defined as [1,<em>] and Input1 is defined as 123</em>, if Input1 = 123456, Output1 = 456.</td>
</tr>
</tbody>
</table>
| [field#,*#] | Required format if the referenced * is not the first instance of * in the input. 
# is the position of the * in the input field.
[1, *1] is equivalent to [1, *].
For example, if Input3 = *123* and Output1 = abc[3, *2], Input3 = 91234 and Output1 = abc4. |
| [field#,?] | The value of ? from the input field. For example, if Output1 is defined as [1,?] and Input1 is defined as 123?, if Input1 = 123456, Output1 = 4. |
| [field#,??] | Required format if the referenced ? is not the first one in the input.
# is the position of the ? in the input field.
[2, ?1] is equivalent to [2, ?].
For example, if Input1 = 123?, Input2 = 4??, and Output1 = abcd[2, ?2] and Input1 = 1237, and Input2 = 498, Output1 = abcd8. |
| \       | Indicator that the next character is interpreted literally. A \ is necessary when the [ or ] character is used in an output. In an output, the use of \ within a [] definition is not allowed. |
| ^       | A space indicator. Required—for leading and trailing spaces. Optional—for spaces displayed in the middle of inputs. |
| {NULL}  | Value used to output an empty field.                       |

2 Perform an action:
For the source, double-click a cell, and enter a rule. Use the syntax described in Table 35, “Source Dimension Rule Syntax,” on page 450. (You can also select a cell and select Pick Member, then in the Member Selector dialog box, select a member, and click OK.)

For the destination, double-click a cell and enter a rule. Use the syntax described in Table 36, “Destination Dimension Rule Syntax,” on page 451. (You can also select a cell and select Pick Member, then in the Member Selector dialog box, select a member, and click OK.)

If you select Pick Member, the member selector enables you to view and select members within a dimension. Expand and collapse members within a dimension using the [+] and [-].

You can use the Menu button to change the columns that display in the Member Selector. You can select the Search tab to search by name or description and use wildcards in your phrase. For example, if you are searching an Account dimension for Asset members and select Name, and type As*, and click Search, only member names that start with As display. For example, Assets, Asset ID, Asset Rate, and so on.

3 If necessary, modify the mapping:
   - To insert a row at the end of the table, click Add.
   - To copy a row, select a row, and click Duplicate. Duplicate rows are inserted at the end of the table.
   - To delete a row, select multiple rows, and click Remove.
   - To move rows up or down in the table, select the rows, and click Move Up or Move Down.
     The rules are processed in order. When a match occurs, the rule is applied to the member and processing completes (no other rules are applied to that member). In some cases, members may match multiple rules so you can control the order of the rules.
   - To edit a cell, double-click the cell or press [F2].

   Tip: You can navigate the table using the [Tab] key.

4 Click Next to validate the mapping tables.

The Validate Mappings screen contains a table with mapping rules in each row. Only rule syntax, not member information is validated. Each rule is marked as passed or failed.

5 Click Validate.

   Tip: You can click View All to view all rules or View Exceptions Only to view only rules that do not pass validation.

6 If a rule did not pass validation, click Back to return to the Map Data page, fix the errors, and click Next to re-validate.

7 Click Next.
The Mapping Properties screen is displayed, enabling you to provide a name and description for the mapping table. It is helpful to provide a prefix, such as MAP_.

8 Enter a name and description, and click Finish.

There are no restrictions for names and descriptions.

A dotted line indicates that a mapping is defined.

The mapping also displays in the Data Synchronizer. See “Working with the Data Synchronizer” on page 455.

Creating Mapping Tables in the Data Synchronizer

The following procedure provides step-by-step information on defining mapping tables in the Data Synchronizer, including selecting the source and destination applications.

Before you create a mapping table, you must create at least one application.

To create mapping tables in the Data Synchronizer:

1 Select File, New, Mapping Table.

The Mapping Table Designer is displayed.

2 Click to select a source application.

The Source Application dialog box is displayed.

3 Select a Source Application. If the application is a Planning application, select the Plan Type. Then, click OK.

4 Click to select a destination application.

5 Select a Destination Application. If the application is a Planning application, select the Plan Type. Then, click OK.

The dimensions change depending on the plan type.

6 Choose the Source and Destination Dimensions, and click Next.

7 Perform an action:

   ● For the source, double-click a cell, and enter a rule. Use the syntax described in Table 35, “Source Dimension Rule Syntax,” on page 450. (You can also select a cell and select Pick Member, then in the Member Selector dialog box, select a member, and click OK.)

   ● For the destination, double-click a cell and enter a rule. Use the syntax described in Table 36, “Destination Dimension Rule Syntax,” on page 451. (You can also select a cell and select Pick Member, then in the Member Selector dialog box, select a member, and click OK.)

If you select Pick Member, the member selector enables you to view and select members within a dimension. Expand and collapse members within a dimension using the [+] and [-].
You can use the Menu button to change the columns that display in the Member Selector.

You can select the Search tab to search by name or description and use wildcards in your phrase. For example, if you are searching an Account dimension for Asset members and select Name, and type As*, and click Search, only member names that start with As display. For example, Assets, Asset ID, Asset Rate, and so on.

8 If necessary, modify the mapping:

- To insert a row at the end of the table, click Add.
- To copy a row, select a row, and click Duplicate.
  Duplicate rows are inserted at the end of the table.
- To delete a row, select multiple rows, and click Remove.
- To move rows up or down in the table, select the rows, and click Move Up or Move Down.
  The rules are processed in order. When a match occurs, the rule is applied to the member and processing completes (no other rules are applied to that member). In some cases, members may match multiple rules so you can control the order of the rules.
- To edit a cell, double-click the cell or press [F2].

  **Tip:** You can navigate the table using the [Tab] key.

9 Click Next to validate the mapping tables.

The Validate Mappings screen contains a table with mapping rules in each row. Only rule syntax, not member information is validated. Each rule is marked as passed or failed.

10 Click Validate.

  **Tip:** You can click View All to view all rules or View Exceptions Only to view only rules that do not pass validation.

11 If a rule did not pass validation, click Back to return to the Map Data page, fix the errors, and click Next to re-validate.

12 Click Next.

The Mapping Properties screen is displayed, enabling you to provide a name and description for the mapping table. It is helpful to provide a prefix, such as MAP_.

13 Enter a name and description, and click Finish.

You can view all defined mapping tables in the Data Synchronizer. See “Working with the Data Synchronizer” on page 455.
Working with the Data Synchronizer

To access data synchronizations and mapping tables, click **Navigate, Administer, Data Synchronization.**

**Navigating the Data Synchronizer**

The Data Synchronizer identifies all synchronizations and mapping tables. If you select a synchronization, the lower pane displays the following information:

- **Summary**—Name, date created, and date last modified
- **Description**—The information that you provided in the Description text box of the New Synchronization dialog box
- **Properties**—The status and the date last synchronized
- **Applications**—The source and destination applications in the synchronization
- **Mapping Tables**—The mapping tables used in the synchronization

If you select a mapping table, the lower pane displays the following information:

- **Summary**—Name, date created, and date last modified
- **Description**—The information that you provided in the Description text box of the New Synchronization dialog box
- **Source Dimensions**—The source dimensions used in the mapping table
- **Destination Dimensions**—The destination dimensions used in the mapping table
- **Synchronizations**—The synchronizations that use the mapping table

### Changing the Data Synchronizer View

To change the Data Synchronization view:

1. **Select View, Details.**
   
   Viewing details shows the synchronization name, description, and date created.

2. To sort by a column, click the column heading. For example, if you want to sort by name, click **Name**.

3. To move a column, click and drag the column heading to a new location.

4. To change the view to icon view, click **View, Icons**.

### Filtering Synchronizations

You use filters to hide synchronizations or mappings from view.

To create data synchronization filters:

1. **Select View, Filter.**

   ![Data Sync Filter](image)

2. Clear the types that you do not want to view.

3. Clear the status that you do not want to view, for example, you may not want to see synchronizations that are out of sync.

4. Click **OK**.
Editing Synchronizations

To edit synchronizations:

1. In the Data Synchronization, right-click a synchronization, and select Edit.

   The Dimension Mapping is displayed.

   Tip: You can also double-click to edit a synchronization.

2. As necessary, modify the mappings and click .

Editing Mapping Tables

To edit mapping tables:

1. Double-click a mapping or right-click a mapping and select Edit.

   The Mapping Table Designer is displayed.

2. Modify the values to be mapped, then click Next.

3. Validate the mappings, then click Next.

4. Modify the mapping properties, then click Finish.

Duplicating Synchronizations and Mappings

To duplicate synchronizations and mappings:

1. In the Data Synchronization module, right-click a synchronization or mapping, and select Duplicate.

   If you duplicate a synchronization and are using a mapping table, the mapping table is used for the original and duplicated synchronization.

2. In the Duplicate dialog box, enter the name and description, then click OK.

Deleting Synchronizations and Mappings

To delete synchronizations and mappings:

1. In the Data Synchronization module, right-click a synchronization or mapping, and select Delete.

2. If necessary, select View, Refresh.

   The synchronization or mapping is removed.
Validating and Executing Synchronizations

When you execute a synchronization, data is retrieved from the source application, transformed according to mapping rules, and pushed to the destination application where it is committed to the application. When you validate a synchronization, the same process is followed but the data is not committed to the destination application. This enables the source and destination to process the request and resulting data to generate errors that might occur without writing the data. You can quickly identify if issues exist with the synchronization.

If your destination is a Consolidation application, the Data Synchronizer uses the default values for:

- Load Mode=Merge
- Accumulate within File=False
- File Contains Ownership Data=False

If your destination is an Essbase application, the Data Synchronizer uses the default values for:

- abortOnError—Determines whether this operation should be aborted if there is error. Valid values are true or false.
- DryRun—Determines whether it is a dry run with no actual data update. Valid values are true or false.
- delimiter—Indicates the delimiter for the data stream.

Note: If a shared location is used for an external file, this data file needs to be accessible by the server validating or executing the synchronization.

To validate synchronizations:

1. **Perform an action:**
   - In the Data Synchronizer, right-click a synchronization, and select **Validate Synchronization**.
   - In the Dimension Mapping, click 📝.

The Data Sync Validation Options dialog box is displayed.

2. **Select the Operator and type the Value.**
   - You should select the operator and enter a value if the values from the source are on a different scale than the destination. You can select Multiply, Divide, Add, or Subtract and then enter a numeric value to apply with the operator. For example, if you select the operator * (Multiply) and enter the value, 10, each data value sent to the destination will be multiplied by 10.

3. **If the synchronization uses an external source file, enter the URL for the source, or click Upload to use a file as the source.**

4. **Click OK.**
To execute synchronizations:

1. **Perform an action:**
   - In the Data Synchronizer, right-click a synchronization, and select **Execute Synchronization**.
   - In the Dimension Mapping, click 🔄.

   The Data Sync Execution Options dialog box is displayed.

2. **Enter the Operator and Value.**

3. **If the synchronization uses an external source file, enter the URL for the source, or click **Upload** to use a file as the source.**

4. **Click OK.**

---

**Troubleshooting Data Synchronizations**

You can enable additional logging to help you troubleshoot problems with data synchronizations.

![Caution!](image)

Enabling debug tracing results in extra debug files being created and accessed. This affects data synchronization performance and uses extra hard disk space. You should only enable these options when troubleshooting problems. Make sure to disable these options when in production.

To enable additional logging:

1. **Navigate to** `%HYPERION_HOME%\deployments\<AppServer>\EPMADataSynchronizer\webapps\DataSync\WEB-INF\classes\`

2. **Using a text editor, open** `dme.properties`.

3. **Uncomment the following debug lines by removing leading #.**

   ```
   preTranslationProcessingClass=com.hyperion.awb.datasync.custom.FileBasedRowLogger
   preTranslationProcessingClass.outputFile=preTransOut.txt
   postTranslationProcessingClass=com.hyperion.awb.datasync.custom.FileBasedRowLogger
   postTranslationProcessingClass.outputFile=postTransOut.txt
   createDebugFiles=true
dme.debugSampleSize=1000
   ```

   Enabling `preTranslationProcessingClass` saves the data from the source before any mappings or transformations are applied in a temporary file. The file is named with a unique ID appended as a suffix: `_preTransOut`. This is useful to track what data is returned by the source.

   Enabling `postTranslationProcessingClass` saves the data from the source after all mappings and transformations are applied in a temporary file. The file is named with a unique ID appended as a suffix: `_postTransOut`. This is useful to track what data is sent to the source and how metadata is mapped and transformed.
Enabling `createDebugFiles` generates these log files every time a data synchronization is executed or validated:

- `SynRequest.xml` — traces each step in the data synchronization execution
- `ALEQuery.xml` — the query in ALE format to be executed by the source

The `debugSampleSize` setting ensures that file size will not exceed the number of bytes set.

4. **Save and close** `dme.properties`.

5. **Restart the Hyperion EPM Architect Data Synchronizer – Web Application** service.

6. **Execute the data synchronization.**

   The resulting log files are generated in the folder created for each data synchronization execution or validation job. If `dme.log` is located in the standard Web Logic server folder it should have path to the temporary folder. Typically, the temporary folder is:

   `%HYPERION_HOME%\deployments\<AppServer>\EPMDataSynchronizer\webapps\DataSync\WEB-INF\temp`.

   For debug files that are created in a folder with a unique ID in the temporary folder, the files are created in the temporary folder with a unique ID appended as a suffix: `_preTransOut` and `_postTransOut`.

   After you enable additional logging to resolve problems, you should disable the options when you return to your production environment.

To disable additional logging:

1. **Using a text editor, open** `dme.properties`.

2. **Comment the following debug lines by adding leading #.**

   ```
   preTranslationProcessingClass=com.hyperion.awb.datasync.custom.FileBasedRowLogger
   preTranslationProcessingClass.outputFile=preTransOut.txt
   postTranslationProcessingClass=com.hyperion.awb.datasync.custom.FileBasedRowLogger
   postTranslationProcessingClass.outputFile=postTransOut.txt
   createDebugFiles=true
debugSampleSize=1000
   ```

3. **Save and close** `dme.properties`.

Part V

Job Management

In Job Management:

- Managing Jobs
- Using Task Automation
Managing Jobs

In This Chapter

Working with the Library Job Console ................................................................. 463
Navigating the Library Job Console ................................................................. 464
Viewing Job Attachments ................................................................................. 469
Deleting Jobs ...................................................................................................... 471

Working with the Library Job Console

The Library Job Console is a central component that provides the infrastructure for handling jobs across many functional areas. A job is an asynchronous process that you submit to run behind the scenes in Performance Management Architect.

The Library Job Console enables you to view and manage jobs in one centralized location. Generally, there are two job categories: jobs and job status that need availability across sessions and jobs that are tied to a session.

The Library Job Console supports the following job types:

<table>
<thead>
<tr>
<th>Job Type</th>
<th>Job associated with...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension Import</td>
<td>importing dimensions into the Dimension Library</td>
</tr>
<tr>
<td>Consolidation Application Deployment</td>
<td>deploying a Consolidation application</td>
</tr>
<tr>
<td>Planning Application Deployment</td>
<td>deploying a Planning application</td>
</tr>
<tr>
<td>Analytics Application Deployment</td>
<td>deploying an Analytic Services application</td>
</tr>
<tr>
<td>Profitability Application Deployment</td>
<td>deploying a Profitability application</td>
</tr>
<tr>
<td>Data Synchronization</td>
<td>executing data synchronizations</td>
</tr>
<tr>
<td>Compare</td>
<td>comparison of applications</td>
</tr>
<tr>
<td>Property Query</td>
<td>property queries</td>
</tr>
<tr>
<td>Export</td>
<td>export of application</td>
</tr>
<tr>
<td>Transaction Log Export</td>
<td>export of transaction logs</td>
</tr>
<tr>
<td>Application Upgrade</td>
<td>upgrading existing Hyperion applications</td>
</tr>
<tr>
<td>Job Type</td>
<td>Job associated with...</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Application Migration</td>
<td>migrating existing Hyperion applications</td>
</tr>
<tr>
<td>Application Validation</td>
<td>validation of existing Hyperion applications</td>
</tr>
<tr>
<td>Detach Dimension</td>
<td>changing a shared dimension to local in an application</td>
</tr>
<tr>
<td>Share Local Dimension</td>
<td>changing a local dimension to shared</td>
</tr>
<tr>
<td>Application Copy</td>
<td>copying an application</td>
</tr>
<tr>
<td>Dimension Copy</td>
<td>copying a dimension</td>
</tr>
</tbody>
</table>

To open the Library Job Console, click **Navigate, Administer, Library Job Console**.

The Job Console is displayed.

Each job captures information during the life of a job, during the initial submitted time or job processing.

### Navigating the Library Job Console

The Library Job Console shows Performance Management Architect jobs. You can select a job in the top pane and view summary information in the bottom pane. The bottom pane displays:
- **Summary**—Information about the job
  - **Started Time**—Used for smaller strings
  - **Submitted Time**—Used for large quantities of content
  - **Last Updated Time**—Last time the job was updated
  - **User Name**—User name that submitted the job
  - **Process Name**—Process name in which the job is running
  - **Thread**—Thread ID of the current job
  - **Server**—Server name where the job is running
  - **Detail**—Job summary, including errors and warnings

- **Attachments**—Each job can have multiple attachments to include additional information. Each attachment can differ and be independent. For example, you can use input parameter files, output log files, or output result files. There are two types of attachments:
  - **Plain Text**—Used for smaller strings
  - **File**—Used for large quantities of content

- **Status**—Displays the status and progress. Each job can have the following status:
  - **Invalid**—No job is running on the server
  - **Scheduled Start**—Queued but has not yet started
  - **Scheduled Stop**—Cancelled, but is still running
  - **Starting**—Preparing to start
  - **Running**—Currently running
  - **Paused**
  - **Stopping**—In the process of stopping
  - **Stopped**—Stopped at the user's request
  - **Aborted**—Aborted due to an error
  - **Completed**—Completed successfully
  - **Not Responding**

**Note:** You cannot change the status of a job.

**Changing the Library Job Console View**

➢ To change the Library Job Console view:

1. To change the number of jobs per page, click Per Page and select the number of jobs, such as 100.
2. To sort by a column, click the column heading. For example, if you want to sort by name, click Name.
3. To move a column, drag the column heading to a new location.
4 To scroll through pages of jobs, click ▶ and ◀ to scroll to the last page.

5 To scroll through previous pages, click ◀ or ◀ to go to the first page.

Tip: As you move through pages of jobs, you may want to refresh the Library Job Console to view the latest job status. See "Refreshing the Library Job Console" on page 466.

**Refreshing the Library Job Console**

You can refresh the Library Job Console to view the latest status of jobs.

➢ To refresh the number of jobs displayed, click ⏯.

**Creating Job Filters**

You can create filters to see specific jobs in the Library Job Console.

➢ To create a filter:

1 Right-click a job and select Filter or click View, Filter.

   The Jobs Filter dialog box is displayed.

2 You can filter jobs by these options:

   a. **Self or Other User**—Select Self to create a filter to view jobs submitted by your user name or select Other User and enter the user name. See “Filtering Your Jobs” on page 467 and “Filtering Jobs for Other Users” on page 467.
b. **Job ID**—Enter the Job ID

c. **Job Type**—Select the job type to filter, such as Dimension Import.

d. **Job Status**—Select the status to filter, such as Completed.

e. **Submitted Time From and To**—Select a start date and end date to filter by a date range.

3. **Click OK.**

**Tip:** To reset the filter to the default options, click Reset.

If jobs are filtered, a link (Job Filter Options) to the Jobs Filter dialog box is displayed in the Running Jobs window.

**Filtering Your Jobs**

You can filter the jobs you see in the Library Job Console to only your jobs. Filtering jobs helps in managing jobs, including deleting outdated jobs. For information on deleting jobs, see “Deleting Jobs” on page 471.

➢ To filter your jobs:

1. Select **View, Filter.**

2. If available, enter the job ID.

3. Select the job type.

4. Select the job status and time, then **click OK.**

   The Library Job Console displays only your jobs, according to the selections in the Jobs Filter dialog box. The following figure shows jobs with the following filters: self and dimension import.

   ![Filtering Jobs Example](image)

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>Last Updated Time</th>
<th>Type</th>
<th>Created By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Import [component] into Application Master</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>5</td>
<td>Import [component] into Application Master</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>7</td>
<td>Replace [table] with [table]</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>8</td>
<td>Dimension Merge - ST_Account to ST_Account</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>15</td>
<td>Import [component] into Application Master</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>21</td>
<td>Import [segment] into Application [segment]</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
<tr>
<td>33</td>
<td>Dimension Merge - ST_Account to ST_Account</td>
<td>Friday, November</td>
<td>Import</td>
<td>admin</td>
</tr>
</tbody>
</table>

**Filtering Jobs for Other Users**

You can filter jobs you see in the Library Job Console for another user.

➢ To filter jobs for other users:

1. Select **View, Filter.**
2 Enter the user name.

3 If available, enter the job ID.

4 Select the job type.

5 Select the job status and time, then click OK.

The Library Job Console displays jobs according to the selections in the Jobs Filter dialog box.

Security

The Library Job Console uses Performance Management Architect roles for submitting and displaying jobs.

Security for Submitting Jobs

Authenticated users can submit jobs for the job types described in the previous sections.

Security for Displaying Jobs

Users who submit jobs have full access to the jobs in the Library Job Console—to update and to read. In addition, users who are part of other Performance Management Architect roles (Dimension Editor, Application Creators, Create Integrations, Run Integrations) can also have access to jobs based on the following table.
### Table 37  Job Type Security

<table>
<thead>
<tr>
<th>Job Type</th>
<th>Who can see:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import</td>
<td>User, Dimension Editor</td>
</tr>
<tr>
<td>Consolidation Application Deployment</td>
<td>User, Financial Management Application creator, Dimension Editor</td>
</tr>
<tr>
<td>Planning Application Deployment</td>
<td>User, Planning Application creator, Dimension Editor</td>
</tr>
<tr>
<td>Analytics Application Deployment</td>
<td>User, Essbase Application creator, Dimension Editor</td>
</tr>
<tr>
<td>Profitability Deployment</td>
<td>User, Profitability Application creator, Dimension Editor</td>
</tr>
<tr>
<td>Data Synchronization</td>
<td>User, Create Integrations, Run Integrations</td>
</tr>
<tr>
<td>Transaction History</td>
<td>User, Dimension Editor</td>
</tr>
<tr>
<td>Compare</td>
<td>User, Dimension Editor</td>
</tr>
<tr>
<td>Property Query</td>
<td>User, Dimension Editor</td>
</tr>
<tr>
<td>Export</td>
<td>User, Financial Management Application creator, Planning Application creator, Essbase Application creator</td>
</tr>
<tr>
<td>Transaction Log Export</td>
<td>User, Financial Management Application creator, Planning Application creator, Essbase Application creator</td>
</tr>
<tr>
<td>Application Upgrade</td>
<td>User, Financial Management Application creator, Planning Application creator, Essbase Application creator, Dimension Editor</td>
</tr>
<tr>
<td>Application Migration</td>
<td>User, Financial Management Application creator, Planning Application creator, Essbase Application creator</td>
</tr>
<tr>
<td>Application Validation</td>
<td>User, Financial Management Application creator, Planning Application creator, Essbase Application creator</td>
</tr>
</tbody>
</table>

### Viewing Job Attachments

Each attachment type can be associated with the viewer type on the results of the job. For example, you can view an error log file generated from the import process using the Import Error Log Viewer. If an attachment does not have a specific viewer implemented, by default you can view it as a text file.
Viewing Import Results

- To view import results, in the Library Job Console – Attachment area, click **Import Results**.

See “Creating Import Profiles” on page 62.

**Note:** The ImportErrorThreshold setting in the bpma_server_config.xml file defines the maximum number of combined errors and warnings that can occur before a running import shuts down. The default value is 1000, however you can change the ImportErrorThreshold setting and increase the import error threshold. See Appendix H, “Configuration Settings in the BPMA_Server_Config.xml File.”

**Viewing Text Files**

You can view the following jobs as text file attachments:

- Data Synchronizations—session log files created for the source, destination, and data synchronization.
- A text file is created for each of these jobs:
  - Compare—a text file is attached to the job.
Deploy—a text file is attached to the job.

Application Upgrade—a text file is attached to the job

Export—a text file is attached to the job

Validation—a text file is attached to the job

To view a text file attachment, in the Library Job Console – Attachment area, click the log file link.

The following figure shows the log files in the Attachment area for a data synchronization.

Deleting Jobs

It is important to delete jobs, as it can be difficult to maintain large numbers of jobs in the database. Deleting jobs makes it easy to navigate the Library Job Console. Remember, you must have the appropriate user permissions to delete jobs.

To delete jobs:

1. In the Library Job Console, right-click a job and select Delete Jobs.

The Confirm Delete dialog box is displayed.
2 Click OK.
Overview

Task Automation provides a method for chaining a series of tasks into a taskflow. You can use Task Automation to automate tasks that you commonly perform using Performance Management Architect.

When you work with Performance Management Architect, you routinely perform tasks such as importing dimensions, data synchronizations, and redeploying applications. You can create and maintain taskflows to perform Performance Management Architect operations and schedule critical tasks to be run as required.

Performance Management Architect supports these taskflows:

- Data Synchronizations
- Import dimensions from flat files
- Import dimensions from interface tables
- Consolidation Redeploy
- Planning Redeploy
- Analytic Services Redeploy (for Essbase (ASO) and Essbase (BSO) applications)
Prerequisites for Task Automation

Consider these prerequisites for Task Automation:

- You must install Shared Services. See the Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide.
- You must register your application with Shared Services. Registration automatically occurs when you deploy an application in Performance Management Architect.

Managing Taskflows

From the Manage Taskflows option, you can create, edit, save, copy, and delete taskflows, view a list of available taskflows, assign access to taskflows, and run taskflows manually. See these procedures:

- “Creating Taskflows” on page 475
- “Adding Stages” on page 478
- “Adding Links” on page 480
- “Editing Taskflows” on page 481
- “Copying Taskflows” on page 482
- “Deleting Taskflows” on page 482
- “Running Taskflows Manually” on page 482
- “Managing Access Permissions to Taskflows” on page 483
- “Assigning Access Permissions to Taskflows” on page 484
- “Viewing Taskflow Status” on page 485
- “Stopping Active Taskflows” on page 487
To manage taskflows, from Performance Management Architect, select **Administration**, then **Manage Taskflows**.

### Creating Taskflows

You create a taskflow to link a series of tasks and specify the time to run them. When you create a taskflow, you assign it a name and description. Then you specify the taskflow details, such as task stages and links between tasks.

To create taskflows:

1. **From the Taskflow Listing Summary screen, click New.**
2. **For Name,** enter a taskflow name. You may want to prefix the taskflow name with EPMA, to easily recognize Performance Management Architect taskflows.
   - The name can contain up to 40 characters.
   - The Application text box displays the name of the current application.
3. **For Description,** enter a taskflow description.
4. **Click Submit.**
   - The taskflow editor is displayed, where you can add stages and links.

### Performance Management Architect Actions

Performance Management Architect supports these actions:
Data Synchronization

To create data synchronization taskflows:

1. Select **Processing**, and select the application. For example, **EPMA- Budget**.
2. Select the action, **Execute Data Synchronization**.
3. Perform these actions:
   - Synchronization Type—select **URL**, then click **Edit**. Choose the synchronization and click **Submit**.
   - **Optional**: External Source File—if the synchronization uses an external source file for the source of the synchronization, type the location of the external source file. The location must be a Universal Naming Convention (UNC) location in which your web server has access. For example, **\\server\file.dat**.
   - Mode—select **Scan** or **Load**.
     - **Scan**—does not commit the data for the synchronization, instead, it tests the synchronization by running it without writing the new data.
     - **Load**—fully executes the synchronization.
4. Click **Save**.

Import Dimensions From Flat File

To create flat file import taskflows:

1. Select the application.
2. Select the action, **Import Dimensions From Flat File**.
3. Perform these actions:
   - Select Profile Name—select **URL**, click **Edit**, select the profile, and click **Submit**.
   - **Optional**: Import Dimensions File—if the profile uses an external flat file, select **TEXTBOX**, then type the location. The location must be a Universal Naming Convention (UNC) location in which your web server has access. For example, **\\server\file.dat**.
4. Click **Save**.
**Import Dimensions from Interface Table**

➢ To create interface table import taskflows:

1. Select the application.
2. Select the action, **Import Dimensions From Interface Area**.
3. In Select Profile Name, select **URL**, click **Edit**, select the profile, and click **Submit**.
4. Click **Save**.

**Redeployment**

You can create taskflows for Consolidation, Planning, and Analytic Services redeployments.

**Consolidation**

➢ To create consolidation redeploy taskflows:

1. Select the application.
2. Select the action, **Consolidation Redeploy**.
3. Perform these actions:
   - Consolidation App—select **URL**, then click **Edit**. Choose the application and click **Submit**.
   - Optional: Clear All Metadata and Data—select **PICKLIST**, then select **True** or **False**.
   - Optional: Check Referential Integrity—select **PICKLIST**, then select **True** or **False**.
4. Click **Save**.

**Planning**

➢ To create planning redeploy taskflows:

1. Select the application.
2. Select **Planning Redeploy**.
3. Perform these actions:
   - Planning App—select **URL**, then click **Edit**. Choose the application and click **Submit**.
   - Datasource—select **TEXTBOX**, then type the original Planning data source location. (The database or Essbase cube that the application uses.)
   - Optional:
     - Create Outline—select **PICKLIST**, then select **True** or **False**
     - Refresh Outline—select **PICKLIST**, then select **True** or **False**
     - Create Security Filters—select **PICKLIST**, then select **True** or **False**
- Shared Members Security Filters—select PICKLIST, then select True or False
- Validate Security Filter Limit—select PICKLIST, then select True or False

**Note:** You must assign security to members in Planning Dimension Editor on the Planning web. The Planning security options are described in the *Oracle Hyperion Planning Administrator’s Guide*.

4  Click **Save**.

**Analytic Services**

➢ To create Analytic Services redeploy taskflows:

1  Select the application.

2  Select the action, **Analytic Services Redeploy**.

3  Perform these actions:

   - Essbase App—select URL, then click **Edit**. Choose the application and click **Submit**.
   - Optional: Clear All Data—select PICKLIST, then select True or False.

4  Click **Save**.

**Adding Stages**

A stage describes a step in a taskflow usually performed by one individual. Each stage has an action. These actions can have parameters in which values are supplied at runtime.

You define a stage using these three tabs:

- General: Defines the stage name, description and user ID of the user responsible for running the stage. The user can be an initiator, which is the owner of the first stage in the taskflow, or another user for the other stages.

- Processing: Defines the action to be performed when the taskflow is run and any required parameters.

- Starting Event: Defines the taskflow start time, and the scheduled times for the event to occur, based on the application server time, not the local user’s computer. This tab is displayed only for the first stage in the taskflow. It displays the scheduled event (taskflow start time), or is disabled (for the manual start of a taskflow executed by the Run Now option).

➢ To add stages:

1  **From the taskflow editor, click Add Stage.**

   A new stage is displayed in the left panel, and stage details are displayed in the right panel. If stages exist in the taskflow, the new stage is created at the end of the taskflow.

2  **Select General and enter this information:**
a. For **Name**, enter a stage name; for example, Data_Synchronization.

**Note:** Stage names cannot contain spaces. The name can contain up to 30 characters.

b. **Optional:** For **Description**, enter a taskflow description; for example, Perform synchronization daily.

c. From **Run As**, select **UserName**, and enter a username and password for the user who launches the taskflow.

**Note:** Stage 1 requires that you enter a username and password. When you create future stages, you can select to run as the Initiator, which tells the system to use the user ID and password that was defined in Stage 1.

3 **Select Processing and enter this information:**

a. From **Application**, select an application from which to run the task.

b. From **Action**, select an action to perform; for example, Data_Synchronization.

**Note:** See “Performance Management Architect Actions” on page 475.

c. From **Type** for each parameter, select Picklist, Text Box, or URL for the Point of View, depending on the action, and enter values for the parameter.

For example, for the Data_Synchronization action, the Mode option contains a picklist from which you can select Merge, Accumulate, or Replace.

For the data file and log file names and paths, you must manually enter the information in a text box. The taskflow is executed from the server, so you must make sure that the file names and paths are valid and can be accessed from the server running the task. Therefore, you should not enter a path such as `c:\file.dat` that references your own hard drive. You must identify the computer name and share directory for the file using Universal Naming Convention (UNC); for example, `\HFMServer\share\path\file.dat`.

4 **Select Starting Event and enter this information:**

a. From **Starting Event**, select an event.

The Server Date information is displayed for informational purposes.

b. For **Start Date**, enter the date for the task to be run, or click the pop-up calendar and select a date.

c. From **Start Time**, select a time for the task to be run.

**Note:** This time is based on the application server, which is identified on the Server Date line.

d. For a recurring task, select **Recurrence**, and from **Recurrence Pattern**, select the task frequency.

e. Select an option for the task end date and time:

   - **No End Date**
- End After occurrences, and enter the number of occurrences
- End Date, enter an end date and select an End Time.

5 Optional: To add a stage, click Add Stage and complete the stage information for General and Processing

Note: The Starting Event tab is available only for the first stage.

### Shared Services Stage Actions and Parameters

**Table 38 Stage Actions and Parameters for Shared Services**

<table>
<thead>
<tr>
<th>Action</th>
<th>Parameters</th>
</tr>
</thead>
</table>
| Email  | Action that enables e-mail messages to be sent automatically to an e-mail address. Complete these parameters for the e-mail action:  
  - To: Type an e-mail address for the recipient  
  - Subject: Type a subject for the e-mail  
  - Message: Select a variable (by double-clicking a variable from the variables list) to display success or failure  
  - Variables: Lists the available variables for the e-mail action |
| Execute| Action that runs external programs from a command line. Complete these parameters for the execute action:  
  - Command: Type a command to run an external program.  
    The external program can be a valid command line script (such as a “bat” script on Windows or a “sh” script on UNIX) and any valid program execution command. Make sure that your bat file does not resolve the path dynamically; if the files uses any variables to resolve the path, it will not work.  
    The command must include the full path to the executable. For example, to launch Internet Explorer, type: C:\Program Files\Internet Explorer\IEXPLORE.EXE |

### Adding Links

A link is the point during the taskflow execution where the activity in one stage is completed and the control passes to another stage, which starts. A link can be unconditional, where the completion of one stage leads to the start of another, or conditional, where the sequence of operation depends on multiple link conditions.

A link specifies the action for the system to take next. Every stage needs a link. In general, most stages have two links: success and failure. For the success link, you can specify that if the first stage succeeds, the system should proceed to the second stage, called the Receiving stage. For the failure link, you specify the action to be performed if problems occur in the first stage.

For example, you can set a success link so that if the first stage of Data_Synchronization succeeds, the system proceeds to the Redeploying_Consolidation stage. You can set a failure link so that if failure occurs or any problems are encountered in the Data_Synchronization stage, the system proceeds to the Redeploying_Consolidation stage of End, which ends the process and terminates the taskflow.
The last stage in the taskflow must have a final link with “End” as the target to complete the taskflow.

You can specify variables for an event. For example, you can add a variable for a load data task such as Data_Synchronization_Result==Success.

To add links:

1. Click Add Link.
2. Select General and for Name, enter a link name.
   The name can contain up to 30 characters.
3. For Description, enter a link description.
   The Sending Stage is displayed for informational purposes.
4. From Receiving Stage select a stage.
5. Select Condition tab if applicable, and from Variable, select a variable, for example, Data_Synchronization_Result.
6. From Value, select Success or Failure.
7. Click Add.

Note: Ensure that the last stage in the taskflow has a link with an End target.

Tip: To delete a condition, click Delete.

Viewing Taskflows

You store and manage taskflows in Shared Services. The Taskflow Listing Summary shows the available taskflows by application, the user who created the taskflow, and a description.

To view taskflow lists, select Administration, Manage Taskflows.

Editing Taskflows

After you create a taskflow, you can edit the taskflow description, and create, edit, or delete taskflow variables. You can also add or delete a stage or a link.

To edit taskflows:

1. Select Administration, Manage Taskflows.
2. Select the taskflow to edit and click Edit.
3. In the taskflow editor, select an option:
   - To add a stage, click Add Stage. See “Adding Stages” on page 478.
To add a link, click Add Link. See “Adding Links ” on page 480.

To delete a stage or link, click Delete.

Note: If you delete a stage, all links associated with it are also deleted.

To edit the taskflow description, click Properties.

Edit the taskflow and perform an action:

- To save the edits, click Save.
- To cancel the edits, click Cancel. The system returns you to the Taskflow Listing Summary without saving your changes.

**Copying Taskflows**

After you define a taskflow for an application, you can copy it to a different application.

1. To copy taskflows:
   1. Select Administration, Manage Taskflows.
   2. Select the taskflow to copy and click Save As.
   3. Enter a new name and description for the taskflow.
   4. Click Submit.

      Shared Services adds a copy of the taskflow with a new name to the Taskflow Listing Summary.

**Deleting Taskflows**

You can delete a taskflow that you no longer need.

1. To delete taskflows:
   1. Select Administration, Manage Taskflows.
   2. From the list of taskflows, select the taskflow to delete, and click Delete.

**Running Taskflows Manually**

You can run a taskflow manually instead of waiting for it to start automatically. You might want to test a taskflow before the time that it is scheduled to run. This enables you to make adjustments to the taskflow before it runs.

1. To run taskflows manually:
   1. Select Administration, Manage Taskflows.
Managing Access Permissions to Taskflows

Shared Services enables you to manage access permissions to taskflows in applications independent from any product application. You assign permissions on a model-by-model basis to individual users or to groups of users. You can also assign permissions at the application level.

To access specific taskflows, users must be assigned access rights individually or inherit access rights by being part of a group that is assigned access rights. If an individual group is assigned to a group and the access rights of the individual user conflict with those of the group, the rights of the individual user take precedence.

To give users access to taskflows other than their own, an administrator must add the users and assign their permissions.

Taskflow management provides these types of permissions:

<table>
<thead>
<tr>
<th>Table 39</th>
<th>Task Flow Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permission</td>
<td>Description</td>
</tr>
<tr>
<td>Read</td>
<td>View a taskflow.</td>
</tr>
<tr>
<td>Write</td>
<td>Edit a taskflow.</td>
</tr>
<tr>
<td>Manage</td>
<td>Create new users and change permissions for users.</td>
</tr>
</tbody>
</table>

You can apply permissions to groups and to individual users. Users are automatically granted the permissions of the groups to which they belong. You can, however, explicitly add or deny permissions to a user to override group permissions.

For each type of access permission (Read, Write, and Manage), you must perform an action:

- **Grant**: Explicitly grant the permission to the user or group.
  
  Granting permissions to a member of a group overrides permissions inherited from the group. For example, if a group is denied a permission, you can explicitly grant the permission to a member of the group.

- **Deny**: Explicitly deny the permission to the user or group.
  
  Denying permissions to a member of a group overrides permissions inherited from the group. For example, if a group is granted a permission, you can explicitly deny the permission to a member of the group.

- **None**: Do not apply the permission to the user or group.
Assigning Access Permissions to Taskflows

You can assign permissions to individual users or to groups of users for individual taskflows. You must have Manage permission for a taskflow to assign permissions to it.

Users inherit the permissions of the groups to which they belong. Permissions that you assign to an individual user, however, override any group permissions that the user inherits.

Assigning (or denying) a permission does not implicitly assign (or deny) any other permissions; that is, assigning Write permission does not implicitly assign Read permission, and assigning Manage permission does not implicitly assign Read and Write permissions. Likewise, denying Read permission does not implicitly deny Write and Manage permissions, and denying Write permission does not implicitly deny Manage permission. You must explicitly assign all permissions for each user.

To assign permissions to taskflows:

1. Select a taskflow and click Access Control.
   You can view the permissions that are assigned to users and groups for the selected taskflow in the Access Listing window.

2. To add users or groups, click Add.
   The Add Principal window is displayed. Available Users/Groups lists users who are authenticated as Shared Services users. If a user is not on the list, contact the administrator to add authenticated users.

3. Optional: To search for users or groups:
   a. From the drop-down list, select Users or Groups.
   b. Enter the user or group name.
   c. From Provider, select the provider that contains the user or group.
   d. Click Search.

4. For Available Users/Groups, select users or groups to assign to this taskflow (press Ctrl to select multiple users).

5. Click Add to move the selected users and groups to Selected Users/Groups or click Add All to move all users and groups to Selected Users/Groups.

   Note: Group names are preceded by an asterisk (*).

6. For the Read, Write, and Manage permissions, select an access type: Grant, Deny, or None.

7. Click Add to assign the permissions.

Editing Permissions to Taskflows

You can edit the permissions of individual users and groups on individual taskflows. You must have Manage permission for a taskflow to change permissions for it.
To edit permissions to taskflows:

1. Select Administration, Manage Taskflows.
2. Select a taskflow and click Access Control.
3. Select the users or groups and click Edit.
   The window shows the permissions assigned to the selected users or groups.
4. Select one of the Grant, Deny, or None options for the Read, Write, and Manage permissions.
5. Click an option:
   - Update to accept the changes
   - Close to cancel the changes

To view changes to taskflow access, you must log out of the product application, close the browser, and re-log on to the product application.

Deleting Permissions to Taskflows

You can delete all permissions for users and groups to individual taskflows. You must have Manage permission for a taskflow to delete access to it.

To delete access to taskflows:

1. Select Administration, Manage Taskflows.
2. Select a taskflow and click Access Control.
   You can view the permissions that are assigned to users and groups for the selected taskflow.
3. Select the users or groups and click Delete.

Viewing Taskflow Status

The Taskflow Status Summary enables you to check the status of taskflows, including those that are active, completed, or stopped. You can view all taskflows, or you can filter the list of taskflows by status, application, or the date or range of dates on which the taskflow was initiated.

You can drill down on individual taskflows to view details of the taskflow in the Taskflow Participant Summary. The Taskflow Participant Summary displays the status for each stage of the taskflow and the time it was completed. You can see the stages that were completed successfully and those that failed. This information can be used to troubleshoot the automation routine.
Table 40  Taskflow Status Summary Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| Status         | Filter on these taskflow types:  
  - Active  
  - Done  
  - Stopped  
  - All |
| Application    | Application participating in the taskflow |
| Taskflow       | Taskflow name |
| Initiated between (optional) | Enter or select by clicking the date or range of dates in which the taskflow was initiated |
| Search         | Click to display in the Taskflow Listing area a list of taskflows that meet the search criteria that you specify |
| Taskflow Listing | Displays taskflows that meet the search criteria that you specify, such as:  
  - ID  
  - Application*  
  - Taskflow*  
  - Initiator*  
  - Started* (lists the latest taskflow first)  
  - Status*  
  - Description  

*Indicates data that is sortable. You may sort taskflows by Application, Taskflow, Initiator, Started, or by Status by clicking on the column header. |

Stop         | Stop an active taskflow instance. |
Delete        | Delete the selected taskflow instance.  
  **Note:** You must stop the taskflow before deleting it. |
Delete All    | Delete all of the selected taskflow instances. |
<            | Display in the Taskflow Listing area the first page of taskflow instances that meet the specified search criteria. |
<            | Display in the Taskflow Listing area the previous page of taskflow instances that meet the specified search criteria. |
Page          | Select a page to display in the Taskflow Listing area. |
>            | Display in the Taskflow Listing area the page you selected in the Page drop-down list box. |
>            | Display in the Taskflow Listing area the next page of taskflow instances that meet the specified search criteria. |
>            | Display in the Taskflow Listing area the last page of taskflow instances that meet the specified search criteria. |
Refresh       | Refresh the taskflow instances listed in the Taskflow Listing area. |
From the Taskflow Status Summary, you can also stop an active taskflow. See “Stopping Active Taskflows” on page 487.

To view taskflow status:
1. Select Administration, View Taskflow Status.
2. Double-click a task ID to display its status.
3. To search for a taskflow, select the filter criteria, and click Search.

### Stopping Active Taskflows

Active taskflows are taskflows that are in progress. You can stop taskflows that are not in progress. For example, you can stop a taskflow that has errors and make adjustments to it.

To stop active taskflows:
1. Select Administration, View Taskflow Status.
2. From Status, select Active.
3. Optional: To filter the list, select search criteria for the taskflow, and click Search.
4. Select the taskflow to stop and click Stop.

### Viewing the Taskflow Participant Summary

The Taskflow Participant Summary lists the participants in a taskflow and provides status information for each participant instance.

To view taskflow participant status:
1. Select Administration, View Taskflow Status.
2. Select the search criteria for the taskflows, and click Search.
   - To view all of the taskflows in the Shared Services taskflow management system, select (Status) All and click Search.
3. In the Taskflow Listing area, find the taskflow for which to view the participant summary and click the taskflow ID.
   - The Taskflow Participant Summary window is displayed.
4. Click Cancel to return to the Taskflow Status Summary window.
### Table 41  Taskflow Participant Summary Window Elements

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taskflow Summary</td>
<td>Summary information for the selected taskflow (items appear in the order of completion):</td>
</tr>
<tr>
<td></td>
<td>- ID</td>
</tr>
<tr>
<td></td>
<td>- Application</td>
</tr>
<tr>
<td></td>
<td>- Taskflow</td>
</tr>
<tr>
<td></td>
<td>- Initiator</td>
</tr>
<tr>
<td></td>
<td>- Started</td>
</tr>
<tr>
<td></td>
<td>- Status</td>
</tr>
<tr>
<td></td>
<td>- Description</td>
</tr>
<tr>
<td>Participant</td>
<td>Stage participant name. Participants are selectable. Click a participant to view details about a taskflow participant.</td>
</tr>
<tr>
<td>Stage Name</td>
<td>Stage name</td>
</tr>
<tr>
<td>Status</td>
<td>Stage status:</td>
</tr>
<tr>
<td></td>
<td>- Active</td>
</tr>
<tr>
<td></td>
<td>- Done</td>
</tr>
<tr>
<td></td>
<td>- Stopped</td>
</tr>
<tr>
<td></td>
<td>- All</td>
</tr>
<tr>
<td>Success Variable</td>
<td>Outcome of the completed stage</td>
</tr>
<tr>
<td>Completed</td>
<td>Date and time of stage completion</td>
</tr>
</tbody>
</table>

### Viewing the Taskflow Participant Details

The Taskflow Participant Details window displays the details for a taskflow participant.

➢ To view taskflow participant details:

1. **Select Administration, View Taskflow Status.**
2. **Select the search criteria for the taskflows, and click Search.**
   To view all the taskflows in the Shared Services taskflow management system, select (Status) All and click Search.
3. **In Taskflow Listing, find the taskflow for which to view the participant summary and click the taskflow ID.**
4. **Click a participant to view taskflow participant details.**
   Shared Services displays the Taskflow Participant Details window and sorts the participant events chronologically.
5. **Click Cancel to return to Taskflow Participant Summary.**
In Financial Management you must associate some dimensions with other dimensions. Certain properties refer to members of other dimensions, for example, the Security Class property of the Account dimension points to a member of the Security Class dimension. For instructions on creating associations, see “Creating Dimension Associations” on page 81.

Dimension names can contain a maximum of 80 characters. For additional information on naming restrictions, see “Dimension Naming Restrictions” on page 514.

Table 42  Financial Management Associations

<table>
<thead>
<tr>
<th>Dimension (Source)</th>
<th>Property Name</th>
<th>Dimension (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
<td>Plug Account</td>
<td>Account</td>
</tr>
<tr>
<td></td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>Custom1–Custom4 Top Member</td>
<td>Custom1–Custom4</td>
</tr>
<tr>
<td></td>
<td>Security Class</td>
<td>Security Class</td>
</tr>
<tr>
<td>Consolidation Method</td>
<td>Alias</td>
<td>Alias</td>
</tr>
</tbody>
</table>
### Account

The following table describes member properties of the Account dimension. The Property Label column shows the label displayed for the property in the Performance Management Architect Property Grid. You can use the name, displayed in the Property Name column, to modify property values in a lights-out fashion using the Performance Management Architect Batch Client. See the Oracle Hyperion Enterprise Performance Management Batch Client User’s Guide for additional information on running scripts.

<table>
<thead>
<tr>
<th>Dimension (Source)</th>
<th>Property Name</th>
<th>Dimension (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td>Custom1–Custom4</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>Security Class</td>
<td>Security Class</td>
</tr>
<tr>
<td>Entity</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>Currency</td>
<td>Currency</td>
</tr>
<tr>
<td></td>
<td>Holding Company</td>
<td>Entity</td>
</tr>
<tr>
<td></td>
<td>ICP Top member</td>
<td>ICP</td>
</tr>
<tr>
<td></td>
<td>Security Class</td>
<td>Security Class</td>
</tr>
<tr>
<td></td>
<td>Security As Partner</td>
<td>Security Class</td>
</tr>
<tr>
<td>ICP</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>Security Class</td>
<td>Security Class</td>
</tr>
<tr>
<td>Period</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td>Scenario</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>Security Class</td>
<td>Security Class</td>
</tr>
<tr>
<td></td>
<td>Default Frequency</td>
<td>View</td>
</tr>
<tr>
<td></td>
<td>Default Frequency For IC Transactions</td>
<td>View</td>
</tr>
<tr>
<td></td>
<td>Phased Submission Start Year</td>
<td>Year</td>
</tr>
<tr>
<td>Value</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td>View</td>
<td>Alias</td>
<td>Alias</td>
</tr>
<tr>
<td>Year</td>
<td>Alias</td>
<td>Alias</td>
</tr>
</tbody>
</table>
### Table 43  Member Properties of the Account Dimension

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Member description (maximum of 80 characters) To use the Alias property, you create an Alias dimension, define properties, and associate the Alias dimension with another dimension. For example, you can create an Alias dimension with the values English, French, and Italian and then associate the Alias dimension with the Account dimension.</td>
<td>Alias</td>
</tr>
<tr>
<td>Calc Attribute</td>
<td>Calculation description (maximum of 80 characters) This information is displayed in data forms and data grids. <strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td>CalcAttribute</td>
</tr>
</tbody>
</table>
| Consolidation Account Type      | One of these values:  
  - ASSET  
  - LIABILITY  
  - REVENUE  
  **Note:** In Financial Management releases prior to 4.1, this account type is called INCOME.  
  - EXPENSE  
  - FLOW  
  - BALANCE  
  - BALANCERECURRING  
  - CURRENCYRATE  
  - GROUPLABEL  
  - DYNAMIC  
  **Note:** When you define the value for this property at the parent level, all children automatically inherit the value. | ConsolidationAccountType |
<p>| Custom1 Top Member, Custom2 Top Member, Custom3 Top Member, Custom4 Top Member | Top member of a Custom dimension that is valid for the account The specified member and all of its descendants are valid for the account. To enter a value for this property, you must associate the Account and Custom dimensions. | Custom1TopMember, Custom2TopMember, Custom3TopMember, Custom4TopMember |
| Default Parent                  | Default parent for the account. The default parent value is a derived value and you cannot enter a value.                                                                                                             | DefaultParent     |
| Enable Custom1 Aggregation, Enable Custom2 Aggregation, Enable Custom3 Aggregation, Enable Custom4 Aggregation | Whether aggregation is enabled for intersections of the Account and Custom dimensions This property is used for special totals, not summing. Specify Y if the account can aggregate with Custom dimensions and N if it cannot. <strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value. | EnableCustom1Aggr, EnableCustom2Aggr, EnableCustom3Aggr, EnableCustom4Aggr |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Enable Data Audit | Whether the scenario is audited what can be audited:  
  • Y to audit all accounts (Even accounts that have Enable Data Audit set to False are audited.)  
  • O to audit only accounts that have Enable Data Audit set to True  
  • N to disable auditing for all accounts | EnableDataAudit |
| ICP Top Member | ICP top member for the account  
The specified member and all of its descendants are valid for the account.  
To enter a value for this property, you must associate the Account and ICP dimensions. | ICPTopMember |
| Is Calculated | Whether the account is calculated  
Only base-level accounts can be calculated. You cannot enter values into base-level, calculated accounts. Specify Y to calculate the account; otherwise, specify N.  
**Note:** When you define the value for this property at the parent level, all children automatically inherit the value. | IsCalculated |
| Is Consolidated | Whether the account is consolidated to a parent account.  
Specify Y to consolidate to a parent account, and N not to consolidate to a parent account.  
**Note:** When you define the value for this property at the parent level, all children automatically inherit the value. | IsConsolidated |
| Is ICP | Whether the account is an intercompany account:  
  • Y if ICP transactions, including self-ICP transactions, are enabled for the account  
  • N if ICP transactions are not enabled for the account  
  • R if ICP transactions are enabled for the account, but the account cannot have ICP transactions with itself  
For an intercompany account, you must specify a plug account. | IsICP |
| Name | Name for the account (required)  
Names can contain up to 80 characters, including spaces, and cannot start with a space or contain these characters:  
  • Period ( . )  
  • Plus sign ( + )  
  • Minus sign ( - )  
  • Asterisk ( * )  
  • Slash mark ( / )  
  • Number sign ( # )  
  • Comma ( , )  
  • Semicolon ( ; )  
  • At sign ( @ )  
  • Double quote ( " )  
  • Curly brackets ( { } )  
  • Ampersand ( & ) | Name |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Of Decimal Places</td>
<td>For account values, the number of digits (0–9) to be displayed to the right of the decimal point (required)</td>
<td>NumDecimalPlaces</td>
</tr>
<tr>
<td>Note:</td>
<td>When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td></td>
</tr>
<tr>
<td>Plug Account</td>
<td>Name of the account that is used for identifying discrepancies in intercompany transactions (required when the Is ICP property for the account is selected)</td>
<td>PlugAccount</td>
</tr>
<tr>
<td></td>
<td>To enter a value for this property, you must associate two Account dimensions.</td>
<td></td>
</tr>
<tr>
<td>Security Class</td>
<td>Name of the security class that defines the users who can access the account data (can contain up to 80 characters)</td>
<td>SecurityClass</td>
</tr>
<tr>
<td></td>
<td>To enter a value for this property, you must associate the Account and Security Class dimensions.</td>
<td></td>
</tr>
<tr>
<td>Submission Group</td>
<td>The Submission group (0 to 99). If the submission group is set to zero (0), the account is not included in the review process.</td>
<td>SubmissionGroup</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Default Value:</strong> 1</td>
<td></td>
</tr>
<tr>
<td>User Defined 1, User Defined 2, User Defined 3</td>
<td>Custom information for the account (maximum of 80 characters)</td>
<td>UserDefined1, UserDefined2, UserDefined3</td>
</tr>
<tr>
<td></td>
<td>The User Defined1, User Defined2, and User Defined3 functions retrieve the text stored in this property.</td>
<td></td>
</tr>
<tr>
<td>Uses Line Items</td>
<td>Whether an account can have line items. Specify Y if the account uses line items and N if the account does not use line items.</td>
<td>UsesLineItems</td>
</tr>
<tr>
<td></td>
<td><strong>Caution!</strong> If you change this property after line-item detail is entered, the stored line-item detail may no longer be valid for the account:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● If the account accepted line items and now it cannot, the line-item detail stored in the database is no longer valid. Only the total is displayed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● If the account did not accept line items and now it can, only the total amount is displayed, but you can extract the total and load it as line-item detail data so that the total and the line-item detail information match.</td>
<td></td>
</tr>
<tr>
<td>XBRL Tags</td>
<td>XBRL tags for the account (maximum of 225 characters)</td>
<td>XBRLTags</td>
</tr>
</tbody>
</table>

**Account Type Behavior**

The following table describes how account types behave in the system. For example, ASSET accounts do not total across periods, and REVENUE accounts provide year-to-date totals. If you debit an ASSET account, the value that you enter is added to the account. If you credit an ASSET account, the value that you enter is subtracted from the account. All account types, except GROUPLABEL, contain data.
Table 44  Account Type Behavior

<table>
<thead>
<tr>
<th>Account Type</th>
<th>YTD Total</th>
<th>Debit</th>
<th>Credit</th>
<th>Default Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSET</td>
<td>No</td>
<td>Add</td>
<td>Sub</td>
<td>DefaultRateForBalance Accounts</td>
</tr>
<tr>
<td>LIABILITY</td>
<td>No</td>
<td>Sub</td>
<td>Add</td>
<td>DefaultRateForBalance Accounts</td>
</tr>
<tr>
<td>REVENUE</td>
<td>Yes</td>
<td>Sub</td>
<td>Add</td>
<td>DefaultRateForFlow Accounts</td>
</tr>
<tr>
<td>EXPENSE</td>
<td>Yes</td>
<td>Add</td>
<td>Sub</td>
<td>DefaultRateForFlow Accounts</td>
</tr>
<tr>
<td>FLOW</td>
<td>Yes</td>
<td>Add</td>
<td>Sub</td>
<td>None</td>
</tr>
<tr>
<td>BALANCE</td>
<td>No</td>
<td>Add</td>
<td>Sub</td>
<td>None</td>
</tr>
<tr>
<td>BALANCE RECURRING</td>
<td>No</td>
<td>Add</td>
<td>Sub</td>
<td>None</td>
</tr>
<tr>
<td>CURRENCYRATE</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GROUPLABEL</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Different account types behave differently when consolidated into different types of parent accounts. For example ASSET account values are added into parent ASSET and EXPENSE accounts and subtracted from parent LIABILITY and REVENUE accounts.

Note: The account types across the top of the table are identified by the first one or two letters of the account type.

Table 45  Account Type Behaviors During Aggregation into Parent Accounts

<table>
<thead>
<tr>
<th>Account Type</th>
<th>A</th>
<th>L</th>
<th>R</th>
<th>E</th>
<th>F</th>
<th>B</th>
<th>BR</th>
<th>C</th>
<th>G</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSET</td>
<td>Add</td>
<td>Sub</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>LIABILITY</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>REVENUE</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>EXPENSE</td>
<td>Add</td>
<td>Sub</td>
<td>Sub</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>FLOW</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>BALANCE</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>BALANCE RECURRING</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>Add</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CURRENCYRATE</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Account-Type Behavior Per Type of Parent Account

<table>
<thead>
<tr>
<th>Account Type</th>
<th>A</th>
<th>L</th>
<th>R</th>
<th>E</th>
<th>F</th>
<th>B</th>
<th>BR</th>
<th>C</th>
<th>G</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUPLABEL</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Note:** In this table, No indicates that the account type is not aggregated into the parent account.

Example of how account types are aggregated into parent accounts:

- Total Assets 80
  - Fixed Assets 100
  - Amortization 20

In this example, Total Assets, an ASSET account, is the parent of Fixed Assets (an ASSET account) and Amortization (a LIABILITY account). When accounts are consolidated into the parent account, the Fixed Assets value of 100 is added, the Amortization value of 20 is subtracted, and the resulting value for Total Assets is 80.

**Defining Dynamic Accounts**

Dynamic accounts are dynamically calculated when their data is requested. Their values are not stored. The most common type of dynamic calculation is ratio calculation.

To define dynamic accounts and calculations:

1. **Set up an account that uses the Dynamic account type.**
   - Only base accounts can be dynamic.

   **Note:** The following account properties are ignored for dynamic accounts: Is Calculated, Is Consolidated, Enable Custom1 Aggregation, Enable Custom2 Aggregation, Enable Custom3 Aggregation, Enable Custom4 Aggregation, Uses Line Items.

2. **In a rules file, create a Sub Dynamic () section.**

3. **In the rules file, define a calculation.**

**Custom**

Custom dimensions are represented by the Generic dimension type in Performance Management Architect. The Generic dimension property, Custom Dimension, maps the Generic Performance Management Architect dimension to a Custom1 through Custom4 Consolidation dimension.
Table 46  Member Properties of Custom Dimensions

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Member description (maximum of 80 characters)</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>To use the Alias property, you create an Alias dimension, define properties, and associate the Alias dimension with another dimension. For example, you can create an Alias dimension with the values English, French, and Italian and then associate the Alias dimension with the Custom dimension.</td>
<td></td>
</tr>
<tr>
<td>Aggregation Weight</td>
<td>The percentage of the custom member to be aggregated to the parent, with 1 representing 100%. For example, if you set the aggregation weight to .5, only 50 percent of the member's value is aggregated to the parent.</td>
<td>AggregationWeight</td>
</tr>
<tr>
<td>Default Parent</td>
<td>The default parent for the custom member. The default parent value is a derived value and you cannot enter a value.</td>
<td>DefaultParent</td>
</tr>
<tr>
<td>Is Calculated</td>
<td>Whether the base-level custom account is calculated</td>
<td>IsCalculated</td>
</tr>
<tr>
<td></td>
<td>Only base-level custom accounts can be calculated. You cannot enter values into base-level, calculated custom accounts. Specify Y to calculate the custom account; otherwise, specify N.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Name for the custom member (required)</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Names can contain up to 80 characters, including spaces, and cannot start with a space or contain these characters:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Period ( . )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Plus sign ( + )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Minus sign ( - )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Asterisk ( * )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Slash mark ( / )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Number sign ( # )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Comma ( , )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Semicolon ( ; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● At sign ( @ )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Double quote ( &quot; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Curly brackets ( { } )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Ampersand ( &amp; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> The name of a Custom1 dimension member cannot duplicate the name of a consolidation method.</td>
<td></td>
</tr>
<tr>
<td>Security Class</td>
<td>Name of the security class that defines the users who can access the Custom dimension data (can contain up to 80 characters)</td>
<td>SecurityClass</td>
</tr>
<tr>
<td></td>
<td>To enter a value for this property, you must associate the Custom and Security Class dimensions.</td>
<td></td>
</tr>
<tr>
<td>Submission Group</td>
<td>The Submission group (0 to 99).</td>
<td>SubmissionGroup</td>
</tr>
<tr>
<td></td>
<td>The default, blank, defaults to 1. If the submission group is set to zero (0), the custom member is not included in the review process.</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Value Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
</tbody>
</table>
| Switch Sign For Flow | Specifies sign change (Debit or Credit) for FLOW accounts that use the following rules:  
- ASSET to LIABILITY  
- LIABILITY to ASSET  
- EXPENSE to REVENUE  
- REVENUE to EXPENSE  
- BALANCE to FLOW  
- FLOW to BALANCE  
Specify Y if the sign for the account is switched and N if the sign for the account is not switched.  
**Note:** When you define the value for this property at the parent level, all children automatically inherit the value. | SwitchSignForFlow          |
| Switch Type For Flow | Specifies the account type change for FLOW accounts that use the following rules:  
- ASSET to EXPENSE  
- EXPENSE to ASSET  
- LIABILITY to REVENUE  
- REVENUE to LIABILITY  
- BALANCE to FLOW  
- FLOW to BALANCE  
Specify Y if the account type for the account is switched and N if the account type for the account is not switched.  
**Note:** When you define the value for this property at the parent level, all children automatically inherit the value. | SwitchTypeForFlow          |
| User Defined 1, User Defined 2, User Defined 3 | Custom information for the custom member (maximum of 80 characters)  
The User Defined 1, User Defined 2, and User Defined 3 functions retrieve the text stored in this property. | UserDefined1, UserDefined2, UserDefined3 |

**Entity**

**Table 47  Member Properties of the Entity Dimension**

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Alias          | Member description (maximum of 80 characters)  
To use the Alias property, you create an Alias dimension, define properties, and associate the Alias dimension with another dimension. For example, you can create an Alias dimension with the values English, French, and Italian and then associate the Alias dimension with the Entity dimension. | Alias           |
<p>| Allow Adjustments | Specifies whether journal postings are permitted for this entity. Specify Y if journal postings are permitted for the entity and N if journal postings are not permitted for the entity. | AllowAdjs       |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow Adjustments From Children</td>
<td>Specifies whether journal postings from children are permitted for the parent entity. Specify Y if journal postings from children are permitted and N if journal postings from children are not permitted.</td>
<td>AllowAdjFromChildren</td>
</tr>
<tr>
<td>Currency</td>
<td>Specifies the default currency for the entity. A value for this property is required. To enter a value for this property, you must create an association between the Entity and Currency dimensions. <strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td>Currency</td>
</tr>
<tr>
<td>Default Parent</td>
<td>Specifies the default parent for the entity. The default parent value is a derived value and you cannot enter a value.</td>
<td>DefaultParent</td>
</tr>
<tr>
<td>Holding Company</td>
<td>Specifies the holding company for the entity. Can be the name of an entity or &lt;blank&gt;. To enter a value for this property, you must create an association between two Entity dimensions.</td>
<td>HoldingCompany</td>
</tr>
<tr>
<td>Is ICP</td>
<td>Specifies whether the entity is an intercompany entity. Specify Y if the entity is an intercompany entity and N if the entity is not an intercompany entity. If the entity is an intercompany entity, it is displayed in the POV in the ICP dimension under [ICP Entities]. <strong>Default Value:</strong> N</td>
<td>IsICP</td>
</tr>
<tr>
<td>Name</td>
<td>Name for the entity (required)</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Names can contain up to 80 characters, including spaces, and cannot start with a space, cannot be the word ALL; and cannot use these characters:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Period ( . )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Plus sign ( + )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Minus sign ( - )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Asterisk ( * )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Slash mark ( / )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Number sign ( # )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Comma ( , )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Semicolon ( ; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- At sign ( @ )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Double quote ( &quot; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Curly brackets ( { } )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ampersand ( &amp; )</td>
<td></td>
</tr>
<tr>
<td>Security As Partner</td>
<td>Specifies the name of a valid security class for the ICP entity. This property enables you to secure the entity in an ICP dimension. To enter a value for this property, you must create an association between the Entity and Security Class dimensions.</td>
<td>SecurityAsPartner</td>
</tr>
<tr>
<td>Security Class</td>
<td>Name of the security class that defines the users who can access the entity data (can contain up to 80 characters) To enter a value for this property, you must associate the Entity and Security Class dimensions.</td>
<td>SecurityClass</td>
</tr>
</tbody>
</table>
### Scenario

#### Table 48  Scenario Dimension Properties

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| User Defined 1, User Defined 2, User Defined 3 | Custom information for the entity (maximum of 80 characters)  
The User Defined 1, User Defined 2, and User Defined 3 functions retrieve the text stored in this property. | UserDefined1  
UserDefined2  
UserDefined3 |
| **Alias** | Member description (maximum of 80 characters)  
To use the Alias property, you create an Alias dimension, define properties, and associate the Alias dimension with another dimension. For example, you can create an Alias dimension with the values English, French, and Italian and then associate the Alias dimension with the Scenario dimension. | Alias |
| **Consolidate YTD** | Specifies the view for consolidation. A value for this property is required. Specify Y for YTD or N for periodic. | ConsolidateYTD |
| **Default Frequency** | Specifies the types of periods for which data input is valid for the scenario. A value for this property is required.  
For example, a value of Monthly indicates that you can extract input data only in month-based periods, not in quarter-based or year-based periods.  
To enter a value for this property, you must create an association between the Scenario and View dimensions. | DefaultFrequency |
| **Default Parent** | Specifies the default parent for the scenario. The default parent value is a derived value and you cannot enter a value. | DefaultParent |
| **Default View** | Specifies the view to use when <Scenario View> is selected in the point-of-view bar. A value for this property is required. Specify YTD or Periodic.  
If you change the default view for a scenario and line-item detail has been entered, you should first extract the line-item detail and save it. Then delete the line-item detail from the scenario before changing the view. You must change the extracted line-item detail to match the new default view before loading it. | DefaultView |
| **Default Frequency For IC Transactions** | Specifies the default frequency for intercompany transactions. This property must be a valid frequency and can contain a maximum of 20 characters. The default for this property is <blank>.  
To enter a value for this property, you must create an association between the Scenario and View dimensions. | DefFreqForICTrans |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Enable Data Audit | Specifies whether the scenario is audited. This property for an account or a scenario determines what can be audited. Specify one of the following values:  
  - Y to automatically audit all accounts. Even accounts that have Enable Data Audit set to False will be audited.  
  - O to audit only those accounts that have Enable Data Audit set to True.  
  - N to disable auditing for all accounts.  
  *Default Value: N* | EnableDataAudit |
| Enable Process Management | Specifies whether Process Management functionality is enabled. Specify one of the following values:  
  - Y to enable the Process Management  
  - N to disable the Process Management option  
  - A to enable Process Management and e-mail alerting.  
  *Default Value: N* | HfmEnableProcessManagement |
| Maximum Review Level | Specifies the maximum Process Management review level for the scenario. Specify a review level from 1 to 10. A value for this property is required. | MaximumReviewLevel |
| Name | Name for the scenario (required)  
Names can contain up to 80 characters, including spaces, and cannot start with a space or contain these characters:  
  - Period ( . )  
  - Plus sign ( + )  
  - Minus sign ( - )  
  - Asterisk ( * )  
  - Slash mark ( / )  
  - Number sign ( # )  
  - Comma ( , )  
  - Semicolon ( ; )  
  - At sign ( @ )  
  - Double quote ( " )  
  - Curly brackets ( { } )  
  - Ampersand ( & ) | Name |
| Phased Submission Start Year | Specifies the start year. You can set the start year by deploying an application in Performance Management Architect or by loading metadata in a classic Financial Management application. This setting enables flexibility of setting a year of a scenario to start phased submission of process management. | PhasedSubStartYear |
| Security Class | Name of the security class that defines the users who can access the scenario data (can contain up to 80 characters)  
To enter a value for this property, you must associate the Scenario and Security Class dimensions. | SecurityClass |
<p>| UDA | The user-defined attributes defined for the dimension. | UDA |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| User Defined 1, User Defined 2, User Defined 3 | Custom information for the scenario (maximum of 80 characters)  
The User Defined 1, User Defined 2, and User Defined 3 functions retrieve the text stored in this property.                                                                 | UserDefined1  
UserDefined2  
UserDefined3 |
| Uses Line Items | Specifies whether the scenario can have line items. Specify Y if the scenario can accept line items and N if the scenario cannot accept line items.  
**Note:** If you change this property after line-item detail is entered, the stored line item detail may no longer be valid for the scenario. The following behaviors occur:  
- If the scenario accepted line items and now it cannot, the line-item detail stored in the database is no longer valid. Only the total is displayed.  
- If the scenario did not accept line items and now it can, there is a total amount but no corresponding line-item detail information for the scenario. You can extract the total and then load it as line-item detail data so that the total matches the line-item detail information. | UsesLineItems |
| Zero View For Adjustments | Specifies how to interpret missing, adjusted data values for the period. A value for this property is required. Specify YTD or Periodic.                                                                 | ZeroViewForAdj |
| Zero View For Non-adjustments | Specifies how to interpret missing, unadjusted data values for the period. A value for this property is required. Specify YTD or Periodic.                                                                 | ZeroViewForNonAdj |

## Application

Application properties are the equivalent of the application settings section in the Classic Financial Management metadata files. Application properties apply to an entire Financial Management application. Application properties determine the following information for the application:

- Is the organization dynamic, using organization by period?
- Which dimensions are secured?
- What default translation rates are used?
- What is the ICP weight?
- Are consolidation rules applied?
- What is the default currency?
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Consolidation Rules           | Specifies if consolidation rules are supported for the application. Specify one of the following values:  
  - Y to use the rules written in the Consolidate() routine in a user-defined rule.  
  - R to derive the proportional value in the Value dimension. Note that the proportional data is not stored.  
  - N to use the default consolidation and eliminations.  
  Default Value: N               | ConsolidationRules                                                                                                                                  |
| Default Currency              | Specifies the default currency for the application.  
  A value for this property is required. | DefaultCurrency                                                                                                                                 |
| Default Rate For Balance Accounts | Specifies the account that contains the translation rate to use for ASSET or LIABILITY accounts.  
  A value for this property is required. | DefaultRateForBalanceAccounts       |
| Default Rate For Flow Accounts | Specifies the account that contains the translation rate to use for REVENUE or EXPENSE accounts.  
  A value for this property is required. | DefaultRateForFlowAccount           |
| Default Value For Active      | Specifies if entities in the application are active by default or inactive by default. Inactive entities are not consolidated to their parent  
  A value for this property is required.  
  Specify 0 for inactive or 1 for active. | DefaultValueForActive                |
| Enable Metadata Security Filtering | Specifies if users of an application see all dimension members or only the members to which they have access. The system can filter the following dimensions:  
  - Scenario  
  - Entity  
  - Intercompany Partner (ICP)  
  - Account  
  - Custom1, Custom2, Custom3, Custom4  
  Specify Y to display only the dimension members to which the user has access or N to display all dimension members in the application.  
  The default value is N. | EnableMetadataSecurityFiltering      |
| ICP Entities Aggregation Weight | Specifies the percentage of intercompany partner entity [ICP Entities] amounts that aggregate to the [ICP Top] member of the Value dimension.  
  The percentage is scaled to hundreds, with 1.0 equalling 100 percent.  
  A value for this property is required.  
  Default Value: 1             | ICPEntitiesAggregationWeight         |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Cell Text Size</td>
<td>Specifies the maximum number of characters that can be used for cell text. Valid values are -1 for no limit or a positive number up to 2,147,483,647. Default Value: 1900</td>
<td>MaxCellTextSize</td>
</tr>
<tr>
<td>Maximum Document Attachment Size</td>
<td>Specifies the maximum number of bytes for the size of document attachments. Valid values are -1 for no limit or a positive number up to 2,147,483,647.</td>
<td>MaxDocAttachmentSize</td>
</tr>
<tr>
<td>Maximum Number of Document Attachments</td>
<td>Specifies the maximum number of document attachments per user. Valid values are -1 for no limit or a positive number up to 2,147,483,647.</td>
<td>MaxNumDocAttachments</td>
</tr>
<tr>
<td>Node Security</td>
<td>Specifies the type of security access for nodes. Valid values are Parent or Entity. Specify Entity to check node data based on security access for the entity and Parent to check node data based on security access for the parent. A value for this property is required.</td>
<td>NodeSecurity</td>
</tr>
<tr>
<td>Org By Period Application</td>
<td>Specifies if new consolidation structures can coexist with past consolidation structures in the application. Specify one of the following values: • Y to allow new and old organizational structures in the application • N to allow only active organizational structures</td>
<td>OrgByPeriodApplication</td>
</tr>
<tr>
<td>Use PVA For Balance Accounts</td>
<td>Specifies the default translation method for BALANCE accounts. Specify one of the following values: • Y to use the periodic value (PVA) translation method • N to use the value at exchange rate (VAL) translation method</td>
<td>UsePVAForBalanceAccounts</td>
</tr>
<tr>
<td>Use PVA For Flow Accounts</td>
<td>Specifies the default translation method for FLOW accounts. Specify one of the following values: • Y to use the periodic value (PVA) translation method • N to use the value at exchange rate (VAL) translation method</td>
<td>UsePVAForFlowAccounts</td>
</tr>
<tr>
<td>Security For Accounts</td>
<td>Specifies if accounts in the application are protected by security. Specify Y for security on accounts in the application and N for no security on accounts in the application.</td>
<td>SecurityForAccounts</td>
</tr>
<tr>
<td>Security For Custom1, Security For Custom2, Security For Custom3, Security For Custom4</td>
<td>Specifies whether custom dimensions in the application are protected by security. Specify Y for security on custom dimensions in the application and N for no security on custom dimensions in the application.</td>
<td>SecurityForCustom1, SecurityForCustom2, SecurityForCustom3, SecurityForCustom4</td>
</tr>
<tr>
<td>Property Label</td>
<td>Value Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Security For Entities</td>
<td>Specifies whether entities in the application are protected by security. Specify Y for security on entities in the application and N for no security on entities in the application.</td>
<td>SecurityForEntities</td>
</tr>
<tr>
<td>Security For ICP</td>
<td>Specifies whether ICP members in the application are protected by security. Specify Y for security on ICP members in the application and N for no security on ICP members in the application.</td>
<td>SecurityForICP</td>
</tr>
<tr>
<td>Security For Scenarios</td>
<td>Specifies whether scenarios in the application are protected by security. Specify Y for security on scenarios in the application and N for no security on scenarios in the application.</td>
<td>SecurityForScenarios</td>
</tr>
<tr>
<td>Validation Account</td>
<td>Specifies the name of the account to use for validation. The account used for validation must be an existing account and must have a valid intersection with [ICPTop] in the Custom dimensions.</td>
<td>ValidationAccount</td>
</tr>
<tr>
<td>Support Submission Phase for Account</td>
<td>Specifies whether phased submissions in process management are supported for accounts in the application. Valid values are True or False. Default Value: False</td>
<td>SupportSubmissionPhaseForAccount</td>
</tr>
<tr>
<td>Support Submission Phase for Custom1</td>
<td>Specifies whether phased submissions in process management are supported for the Custom members in the application. Valid values are True or False. Default Value: False</td>
<td>SupportSubmissionPhaseForCustom1</td>
</tr>
<tr>
<td>Support Submission Phase for Custom2</td>
<td></td>
<td>SupportSubmissionPhaseForCustom2</td>
</tr>
<tr>
<td>Support Submission Phase for Custom3</td>
<td></td>
<td>SupportSubmissionPhaseForCustom3</td>
</tr>
<tr>
<td>Support Submission Phase for Custom4</td>
<td></td>
<td>SupportSubmissionPhaseForCustom4</td>
</tr>
<tr>
<td>Support Submission Phase for ICP</td>
<td>Specifies whether phased submissions in process management are supported for ICP members in the application. Valid values are True or False. Default Value: False</td>
<td>SupportSubmissionPhaseForICP</td>
</tr>
<tr>
<td>Validation Account 2 to 9</td>
<td>Validation accounts are used to ensure that the value equals zero before a process unit can be promoted to the next review level. For example, Validation Account3 requires a valid account for Submission Phase4.</td>
<td>ValidationAccount2 to 9</td>
</tr>
<tr>
<td>FDM Application Name</td>
<td>Name of the FDM application.</td>
<td>FdmAppName</td>
</tr>
</tbody>
</table>

**Organization by Period**

The organization by period functionality enables the most recent consolidation structure to coexist with past structures in the same application.

Organizational structures can change for many reasons, including acquisitions, disposals, mergers, and reorganizations. To support organizational changes, Financial Management uses a system account, Active, to reflect the active or inactive consolidation status of a child into its
parent. The Active account acts as a filter of the entity hierarchy. The Active account is an intercompany account that stores data at the parent level and uses the ICP dimension to store information about children.

For an ICP member that corresponds to a child of a parent, the Active account indicates to the system whether the child should be considered as an active consolidation member for the current year, scenario, and time period. Children that correspond to ICP members for which the Active account equals 0 are considered to be inactive children and are not consolidated. Children that correspond to ICP members for which the Active account equals 1 are considered to be active children and are consolidated. Active account values can be viewed or changed. Changes to active child data affect the parent, while changes to inactive child data do not affect the parent.

The Default Value For Active property controls the status of children for which the Active account is blank. So, every parent-child intersection does not have to be flagged as active or inactive. By default, every child is active in relation to its parent unless otherwise specified.

**Consolidation Method**

Table 50  Consolidation Method Properties

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Member description (maximum of 80 characters)</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>To use the Alias property, you create an Alias dimension, define properties, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>associate the Alias dimension with another dimension. For example, you can create</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an Alias dimension with the values English, French, and Italian and then associate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Alias dimension with the Consolidation Method dimension.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Name for the consolidation method (required)</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Names can contain up to 80 characters, including spaces, and cannot start with a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>space or contain these characters:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Period ( . )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Plus sign ( + )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Minus sign ( - )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Asterisk ( * )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Slash mark ( / )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Number sign ( # )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Comma ( , )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Semicolon ( : )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● At sign ( @ )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Double quote ( &quot; )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Curly brackets ( { } )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Ampersand ( &amp; )</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Value Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
</tbody>
</table>
| Control           | Specifies the threshold that corresponds to the type of control to be used by the calculation routine. Specify one of the following values for this property:  
  - Blank  
  - No  
  - Limited  
  - Full | Control                          |
| Is Holding Method | Specifies if the consolidation method is used for the holding company.  
  Specify Y to use the method for the holding company and N to use a different method for the holding company. | IsHoldingMethod       |
| Percent Consol    | Specifies the consolidation percentage applied by the ownership calculation routine.  
  Specify one of the following values:  
  - POWN  
  - POWNMIN  
  - PERCENTAGE  
  **Note:** If you select PERCENTAGE as the value, you must enter a value for the Percent Consol Value property. | PercentConsol          |
| Percent Consol Value | Specifies the consolidation percentage value applied by the ownership calculation routine.  
  **Note:** This property is used by system only if PERCENTAGE is the value for the Percent Consol property.  
  Specify a value between 1 and 100. | PercentConsolValue     |
| To Percent Control | Specifies the upper boundary of the range for percent control. Used for the ownership calculation routine.  
  Specify a value between 0 and 100.  
  **Note:** One of the method records must have a value of 100. | ToPercentControl       |
| To Percent Control Compare | Specifies if the upper boundary of the range of percent control is included in the range. Used for the ownership calculation routine and the To Percent Control property. This property is optional if the Used By Calc Routine property is N.  
  Specify < or <= for this property. | ToPercentControlComp  |
| Used By Calc Routine | Specifies if the method is used for the automatic ownership calculation routine.  
  Specify Y to use the method for ownership calculations and N not to use the method for ownership calculations. | UsedByCalcRoutine     |

**Using Consolidation Methods**

Consolidation methods are used during the consolidation and calculate ownership processes.

When you define consolidation methods in the metadata, the system automatically generates the [ConsolMethod] system list for the Custom1 dimension. The system list consists of all methods defined in the consolidation methods section of the metadata.
There are two ways to assign the consolidation method to an entity for use during consolidation. The method can be assigned manually through data load or data entry. The method can also be assigned by the calculate ownership routine, which is based on the ultimate percent control assigned to the entity.

**Assigning Consolidation Methods Manually**

To enter consolidation method information manually, you can create a data grid with the following information:

POV: Scenario, Year, Period, View, Entity, Value, Account, C2, C3, C4

Scenario: Applicable scenario
Year: Applicable year
Period: Applicable period
Entity: A parent entity
Value: [None]
Account: [Method], a system generated account called Method
C2: [None]
C3: [None]
C4: [None]

Row: ICP entities (For parents, user can use the system list [ICP Entities] or the user-defined list of selected ICP entities.)

Column: Custom1 (The user should use the system-generated list [ConsolMethods].)

Method assignment information is stored in the account method of the data file of the parent entity. For each child of a parent, the system stores the consolidation method assignment in the ICP dimension. The assigned method is used when the children are consolidated to the parent.

For an intersection of the grid, use 1 to indicate the method assignment to the ICP entity. For example, if a parent group has two children, A and B, and you assign the Global method to A and the Equity method to B, enter 1 in the intersection for the Global method and entity A and 1 in the intersection for the Equity method and entity B.
### Currency

Table 51  Member Properties in the Currency Dimension

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Member description (maximum of 80 characters)</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>To use the Alias property, you create an Alias dimension, define properties, and associate the Alias dimension with another dimension. For example, you can create an Alias dimension with the values English, French, and Italian and then associate the Alias dimension with the Currency dimension.</td>
<td></td>
</tr>
<tr>
<td>Display In ICT</td>
<td>Specifies if currencies display in the drop-down list in the intercompany transactions module. Specify Y to display currencies and N to not display currencies.</td>
<td>DisplayInICT</td>
</tr>
<tr>
<td>Name</td>
<td>Name for the currency (required)</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Names can contain up to 80 characters, including spaces, and cannot start with a space or contain these characters:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Period ( . )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Plus sign ( + )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Minus sign ( - )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Asterisk ( * )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Slash mark ( / )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Number sign ( # )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Comma ( , )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Semicolon ( : )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• At sign ( @ )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Double quote ( “ )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Curly brackets ( { } )</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ampersand ( &amp; )</td>
<td></td>
</tr>
</tbody>
</table>
### Scale

Specifies the unit in which amounts are displayed and stored for the currency by identifying where the decimal point is placed.

A value for this property is required.

Determines how the exchange rate must be entered. Specify one of the following values for this property:
- Blank = None
- 0 = Units
- 1 = Tens
- 2 = Hundreds
- 3 = Thousands
- 4 = Ten thousands
- 5 = Hundred thousands
- 6 = Millions
- 7 = Ten millions
- 8 = Hundred millions
- 9 = Billions

### Translation Operator

Specifies the conversion calculation for intercompany transactions.

The default is blank.

Specify one of the following values:
- D to calculate the local currency by dividing the transaction currency by the rate
- M to calculate the local currency by multiplying the transaction currency by the rate
- <blank> to default the value to D

---

The system member list [Currencies] is available for the Custom1 and Custom2 dimensions. Currencies that you add to the application are added to the [Currencies] member list. The [Currencies] list enables the entry of currency translation rates for pairs of currencies and provides a way of filtering out non-currency members.

---

## System-Generated Accounts

When you create an application, system accounts for consolidation and ownership are automatically created for the application.

**Note:** You can change only the description, security class, and decimal location for system accounts. All other properties for system accounts are predefined and cannot be modified.

## Consolidation Accounts

The following system accounts are required for each parent in the Account dimension and are used in the consolidation process.
Note: All system accounts that are used for consolidation, except for the Active account, are BALANCE accounts. The Active account is a BALANCERECURRING account.

### Table 52 System Accounts for Consolidation

<table>
<thead>
<tr>
<th>System Accounts for Consolidation</th>
<th>Value Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Consolidation status of a child into its parent. Yes if the child is consolidated into its parent. No if the child is not consolidated into its parent.</td>
</tr>
</tbody>
</table>
| [PCON]                           | Percent consolidation. The percentage of the value of an entity that consolidates to the parent of the entity. Positive or negative numbers between -100 and 100, including 0. Default value is 100. 
  **Note:** For subsequent periods, derived as 0. Therefore, you must enter the percentage in all subsequent periods. |
| [POWN]                           | Percent ownership based on the shares of the entity that are owned by other entities. A positive number between 0 and 100. Default value is 100. |
| [DOWN]                           | Percent of direct ownership. A positive number between 0 and 100. Default value is 100. |
| [PCTRL]                          | Percent control based on the voting shares of the entity that are owned by other entities. A positive number between 0 and 100. Default value is 100. |
| Method                           | Consolidation method assigned to the entity. <None> or a selection from the list of available methods. |
| Consol1, Consol2, Consol3        | Consolidation methods. A number between 0 and 255. |

### Ownership Accounts

The following system accounts are used for ownership calculations.

Note: All system accounts that are used for ownership calculations are BALANCE accounts.

### Table 53 System Accounts for Ownership

<table>
<thead>
<tr>
<th>System Account for Ownership</th>
<th>Value Description</th>
</tr>
</thead>
</table>
| SharesOwned                  | Total number of shares owned. Positive number or 0. Default is 0. 
  **Note:** Total shares owned must be less than or equal to the total shares outstanding. |
| VotingOwned                   | Number of voting shares owned. Positive number or 0. Default value is 0. 
  **Note:** Total voting shares owned must be less than or equal to the total voting shares outstanding. |
| SharesOutstanding            | Total number of shares outstanding or the percentage of shares outstanding. Positive number or 0. Default value is 0. 
  **Note:** Enter the number of shares outstanding, or enter shares outstanding as a percentage. Enter 100 for percentage. |
### System Account for Ownership

<table>
<thead>
<tr>
<th>System Account for Ownership</th>
<th>Value Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VotingOutstanding</td>
<td>Number of voting shares outstanding. A positive number or 0. Default value is 0.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Enter the number of voting shares outstanding, or enter voting shares</td>
</tr>
<tr>
<td></td>
<td>outstanding as a percentage. Enter 100 for percentage.</td>
</tr>
<tr>
<td>Shares%Owned</td>
<td>Calculated by system.</td>
</tr>
<tr>
<td>Voting%Owned</td>
<td>Calculated by system.</td>
</tr>
</tbody>
</table>

### Setting Up Intercompany Partners

Intercompany transactions are managed across the Intercompany Partner (ICP) dimension. The ICP dimension represents a container for all intercompany balances that exist for an account. ICP is a reserved dimension used in combination with the Account dimension and custom dimensions to track and eliminate intercompany transaction details.

To set up an application for intercompany transactions, you must perform the following actions:

- Indicate the accounts that perform intercompany transactions and indicate a plug account for each intercompany account (Is ICP and Plug Account properties in account metadata)
- Indicate the entities that perform intercompany transactions (Is ICP property in entity metadata)

When you create intercompany transactions, each group must have at least one intercompany account and one plug account. You designate an account as intercompany by selecting the Is ICP property for the account. When an account is designated as intercompany and intercompany transactions are entered, eliminating or reversing entries are generated in the [Elimination] value dimension member through the consolidation process.

A plug account is an account that, when eliminations are completed, stores the difference between two intercompany accounts. A plug account can be set up as an ICP account. For a plug account to be detailed by ICP, set the Is ICP property to Y or R so that the system writes eliminations to the corresponding ICP member. If you do not want a plug account to be detailed by ICP, set the Is ICP property to N so that the system writes eliminations to [ICP None]. During consolidation, transactions between valid intercompany entities are eliminated.

### Table 54  System-Generated ICP Elements

<table>
<thead>
<tr>
<th>System-Generated ICP Element</th>
<th>Value Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ICP Top]</td>
<td>Specifies the top intercompany member</td>
</tr>
<tr>
<td>[ICP None]</td>
<td>Specifies that no intercompany member is used</td>
</tr>
<tr>
<td>[ICP Entities]</td>
<td>Specifies the entities that are designated for intercompany transactions</td>
</tr>
</tbody>
</table>
Table 55  ICP Properties

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Value Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Member description (maximum of 80 characters)</td>
<td>Alias</td>
</tr>
<tr>
<td></td>
<td>To use the Alias property, you create an Alias dimension, define properties, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>associate the Alias dimension with another dimension. For example, you can create</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an Alias dimension with the values English, French, and Italian and then associate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Alias dimension with the ICP dimension.</td>
<td></td>
</tr>
<tr>
<td>Default Parent</td>
<td>The default parent for the ICP. The default parent value is a derived value and</td>
<td>DefaultParent</td>
</tr>
<tr>
<td></td>
<td>you cannot enter a value.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Name for the ICP (required)</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>Names are defined and cannot be changed.</td>
<td></td>
</tr>
<tr>
<td>Security Class</td>
<td>Name of the security class that defines the users who can access the ICP data</td>
<td>SecurityClass</td>
</tr>
<tr>
<td></td>
<td>(can contain up to 80 characters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To enter a value for this property, you must associate the ICP and Security Class</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dimensions.</td>
<td></td>
</tr>
<tr>
<td>Submission Group</td>
<td>The Submission group (0 to 99).</td>
<td>SubmissionGroup</td>
</tr>
<tr>
<td></td>
<td>The default, blank, defaults to 1. If the submission group is set to zero (0), the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICP is not included in the review process.</td>
<td></td>
</tr>
</tbody>
</table>

Editing System-Generated Value Members

When you create an application, Value members are automatically created for the application.

**Note:** You can modify only the description for Value members. All other properties are predefined and cannot be modified.

After you load metadata, Financial Management automatically creates three Value dimension members for each currency in your application: `CurrencyName`, `CurrencyName Adjs`, and `CurrencyName Total`, where `CurrencyName` is the currency label. For example, for a currency of USD, Financial Management creates the following Value dimension members: USD, USD Adjs, and USD Total.

Metadata Filtering Based on Security

When you filter metadata based on security, users see only the elements of the Scenario, Entity, ICP, Account, and Custom1 through Custom4 dimensions to which they have access. You set up metadata filtering at the application level by setting the `EnableMetadataSecurityFiltering` property to Y. For elements a user can view in a hierarchy, assign a security class and give the user metadata access to the security class.

Users have implied access to the parents and ancestors of members to which they have access. With implied access, users see ancestors and parents in a hierarchical tree structure but cannot access them. For example, in the following tree structure, the user has access to only Connecticut.
even though the parents (UnitedStates and Imbler) and the ancestors (Management and Regional) are displayed in the tree.

```
- Entity
  - [None]
  - Regional
    - UnitedStates
    - Connecticut
  - Management
    - Imbler
    - Connecticut
```

## Metadata Referential Integrity

To prevent a referential integrity problem from occurring in the application, Financial Management verifies that metadata changes are valid to the application in its current state before accepting the changes.

When you load metadata, the system compares the metadata load file with the metadata elements in the application. All changes are recorded, and some changes are checked against existing data. Modifications that cause referential integrity problems are not allowed.

**Note:** When you load metadata, make sure that the Check Integrity option is selected.

### Metadata Property Changes That Affect Referential Integrity

The following table provides information about specific changes in metadata properties that require the system to check existing data in regard to the metadata file that you are loading. Only metadata properties that have an effect on referential integrity are listed in the table.

#### Table 56  Metadata Referential Integrity Checks

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Metadata Property Change</th>
<th>Condition That Prevents Metadata From Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account</td>
<td>Is Calculated (from N to Y)</td>
<td>Checks to see if a journal or template exists for the account, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Is ICP (from Y to R)</td>
<td>Checks to see if a journal or template exists for the account and ICP=&lt;Entity&gt;, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Is ICP (from Y to N or from R to N)</td>
<td>Checks to see if a journal or template exists for the account and ICP &lt;&gt; [ICP None] (because the account is not an intercompany account and ICP members other than [ICP None] is invalid), and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Uses Line Items (from Y to N or from N to Y)</td>
<td>Checks to see if regular data exists for the scenario and account, and, if found, prevents the metadata from loading.</td>
</tr>
</tbody>
</table>

**Note:** From Y to N, the system does not allow access to line-item detail.

| Custom    | Is Calculated (from N to Y) | Checks to see if a journal or template exists for this custom dimension, and, if found, prevents the metadata from loading. |

---

Metadata Referential Integrity  513
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Metadata Property Change</th>
<th>Condition That Prevents Metadata From Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity</td>
<td>Currency</td>
<td>Checks to see if a journal exists for &lt;Entity Currency Adjs&gt; or &lt;Parent Currency Adjs&gt;, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Allow Adjustments (from Y to N)</td>
<td>For Allow Adjustments, checks to see if a journal with &lt;Entity Curr Adjs&gt; or &lt;Parent Currency Adjs&gt; exists for the entity, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Allow Adjustments From Children (from Y to N)</td>
<td>For Allow Adjustments From Children, checks to see if a journal with [Parent Adjs] or [Contribution Adjs] exists for the entity, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Is ICP (from Y to N)</td>
<td>Checks to see if a journal in which the entity is used in the ICP dimension exists, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td>Scenario</td>
<td>Zero View For Adjustments</td>
<td>Checks to see if a journal exists for the scenario, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td></td>
<td>Uses Line Items</td>
<td>Checks to see if regular data exists for an account with this property turned on for the specified scenario, and, if found, prevents the metadata from loading.</td>
</tr>
<tr>
<td>Application</td>
<td>Default Value For Active</td>
<td>Checks to see if a journal or recurring template exists for [Parent Adjs] or [Contribution Adjs], and, if found, prevents the metadata from loading.</td>
</tr>
</tbody>
</table>

The system also checks for invalid points of view between the load file and the metadata in the application. If a dimension member is not in the load file but exists in a journal in the application, the metadata load is prevented.

**Metadata Log File Referential Integrity Errors**

In the metadata log file, referential integrity errors are displayed under the following section:

**Metadata referential integrity check started at**

Each line in the referential integrity check section refers to a metadata integrity error in the load file. Errors found during the integrity check are displayed in the following format:

- **Journals::SINGLECA1 Scenario::Actual Year::1999 Value::[Contribution Adjs] Period::January has 1 occurrences of Changed::[SCENARIO::Actual::ZeroViewForAdj: Periodic -> YTD]**

This example shows that the metadata integrity error occurs in the SINGLECA1 journal with the following point of view: Scenario Actual, Year 1999, Value [Contribution Adjs], Period January. The error is that the ZeroViewForAdj property for the Actual scenario was changed from Periodic to YTD. This change is not allowed because a journal exists for the Actual scenario.

**Dimension Naming Restrictions**

When naming Consolidation dimensions, follow these rules:

- Names can include up to 80 characters.
Names cannot start with an underscore, any whitespace character, or any non-alphanumeric character. After the first character, names can have any whitespace character, any non-alphanumeric character, and any alphanumeric character including the underscore.

Do not include these words in dimension names:

- ALL
- AND
- ASSIGN
- AVERAGE
- CALC
- CALCMBR
- COPYFORWARD
- CROSSDIM
- CURMBRNAME
- DIM
- DIMNAME
- DIV
- DYNAMIC
- EMPTYPARAM
- EQ
- EQOP
- EXCEPT
- EXP
- EXPERROR
- FLOAT
- FUNCTION
- GE
- GEN
- GENRANGE
- GROUP
- GT
- ID
- IDERROR
- INTEGER
- LE
- LEVELRANGE
- LOOPBLOCK
- LOOPPARAMS
- LT
- MBR
- MBRNAME
- MBRONLY
- MINUS
- MISSING
- MUL
- MULOP
- NE
- NON
- NONINPUT
- NOT
- OR
- PAREN
- PARENPARAM
- PERCENT
- PLUS
- RELOP
- SET
- SKIPBOTH
- SKIPMISSING
- SKIPNONE
- SKIPZERO
- TOLOCALRATE
- TRAILMISSING
- TRAILSUM
- UMINUS
- UPPER
- VARORXMBR
- XMBRONLY
- $UNIVERSE$
- #MISSING
- #MI

Using Consolidation Flat Files Created in 9.3.1

If you are using .ads flat files created in previous releases, you must make manual updates before using them in the current release. In your flat file, make these updates:

- You must add PhasedSubStartYear to the scenario dimension in the .ads file
- You must remove the DefaultParent from the .ads file

Working with Financial Management 9.3.1 and Performance Management Architect

If you are using Financial Management 9.3.1 with the current release of Performance Management Architect, you can use all of the features available in this release. Follow the standard process for upgrading Performance Management Architect, EPM Workspace, and Shared Services. No additional steps are necessary.
## Properties Applicable to All Planning Dimensions

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Plan Name      | Up to eight characters. You can have up to five plan types for Planning applications. Plan1, Plan2, and Plan3 are the standard Planning plan types. (The other plan types pertain to separate modules. See the Oracle Hyperion Workforce Planning Administrator's Guide and Oracle Hyperion Capital Asset Planning Administrator's Guide.)  
*Default Value:* Plan1: True, Plan2: True, Plan3: True, Workforce: False, Capital Asset: False | Plan1Name, Plan2Name, Plan3Name, PlanWorkforceName, PlanCapexName                                  |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid For Plan</td>
<td>The standard Planning application has up to three plan types. (For information on other plan types, see the Oracle Hyperion Workforce Planning Administrator's Guide and Oracle Hyperion Capital Asset Planning Administrator's Guide.) An Essbase database is created for each plan type. As you create accounts, entities, and other dimensions, you associate them with plan types, so the database for each plan type contains only the dimensions, members, and data values relevant to that plan type. This allows for optimal application design, size, and performance. You must set up at least one plan type. (The number of plan types depends on the needs of your organization.) You cannot reduce the number of plan types or change the plan type names after you create the application. <strong>Caution!</strong> Deselecting a plan type for dimension members after data is entered into applications may result in loss of data when applications are refreshed. For Account members, data is lost if the deselected plan type is the source plan type. Plan types are inherited from parents to child members. If you select a different plan type for a parent member, all descendant members in that hierarchy are also updated. To set a different plan type for certain members, select them individually and set a different property. <strong>Note:</strong> When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. This property value is a relationship value. If you make changes to this value, it is not automatically changed for the members in other hierarchies. <em>Default Value:</em> Plan1: True, Plan2: True, Plan3: True, Workforce: False, Capital Asset: False</td>
<td>AppValidForPlan1, AppValidForPlan2, AppValidForPlan3, AppValidForWorkforce, AppValidForCapex</td>
</tr>
<tr>
<td>Date Format</td>
<td>Set the date format as MM-DD-YYYY or DD-MM-YYYY. <em>Default Value:</em> MM-DD-YYYY</td>
<td>DateFormat</td>
</tr>
<tr>
<td>Default Currency</td>
<td>This is the default currency for the application and application entities. <em>Default Value:</em> N/A</td>
<td>DefaultCurrency</td>
</tr>
<tr>
<td>Multiple Currencies</td>
<td>Indicates that the application supports multiple currencies. Once specified, this cannot be changed. A Currency dimension is required. Multiple currency support is available for level 0 members, regardless of base currency. Performance Management Architect does not create Currency dimensions automatically. HSP_Rates is created during Planning application creation for multi-currency applications; it is not defined in Performance Management Architect. HSP_Rates is available in the Performance Settings dialog box to tune Planning application performance. <em>Default Value:</em> True</td>
<td>MultiCurrency</td>
</tr>
</tbody>
</table>
| Base Time Period | Defines the bottom-level time period in the application to set how calendars roll up. Select the appropriate value for the Period dimension structure:  
  - 12 Months (months roll up into quarters, and quarters into years)  
  - Quarters  
  - Custom (such as weeks or days)  
*Default Value:* 12 months | BaseTimePeriod |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks</td>
<td>Pattern for fiscal weeks in a month: Even, 445, 454, or 544. Sets how data entered into a summary time period spreads among base time periods. If you select a weekly pattern other than Even, Planning treats quarterly values as if they were divided into 13 weeks, and distributes the weeks according to the selected pattern. Weekly patterns are available only after selecting the base time period option 12 Months. Default Value: Even</td>
<td>WeeksDistribution, WeeksDistributionMember</td>
</tr>
<tr>
<td>Start Year</td>
<td>The fiscal start year for the application. Start Year uses a four digit year format, such as 2008 or 2009. Do not change this setting after creating the application. Default Value: N/A</td>
<td>AppStartYear</td>
</tr>
<tr>
<td>Start Month</td>
<td>The fiscal start month for an application that has a Base Time Period set to 12 Months. For other Base Time Period types, this field is not relevant. Do not change the Start Month for the application after it has been deployed. Default Value: N/A</td>
<td>StartMonth</td>
</tr>
<tr>
<td>Default Alias Table</td>
<td>Required for each application. If other alias tables are not created, aliases are stored in the Default table (which cannot be deleted). You can create up to nine additional alias tables. To create alias tables in Performance Management Architect, create a dimension of type Alias, and create a child member named Default. This member is the default alias table required by Planning and Essbase. You can create additional alias tables by adding child members to the Alias dimension. Create dimension associations to associate the Alias dimension to the main or base dimension, such as Account, Entity, or a user-defined dimension. You can change the default alias table by selecting the Alias dimension and changing the Default Member property in the System category. Default Value: default</td>
<td>DefaultAliasTable</td>
</tr>
</tbody>
</table>

**Properties Common to Multiple Planning Dimensions**

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid for Plan</td>
<td>Plan1, Plan2, Plan 3, Workforce, Capital Asset. (The other plan types pertain to separate modules. See the Oracle Hyperion Workforce Planning Administrator’s Guide and Oracle Hyperion Capital Asset Planning Administrator’s Guide.) Assign plan type access for members. Not assigning a plan type to a member prevents its children from accessing that plan type. For Custom dimensions, deselecting makes all dimension members invalid for the deselected plan type. When moving members, if the new parent is valid for different plan types, members remain valid only for the plan types they have in common with the new parent. When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value.</td>
<td>AppValidForPlan1, AppValidForPlan2, AppValidForPlan3, AppValidForWorkforce, AppValidForCapex</td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
| Data Storage  | Determines how data is stored in the database and enables optimization of performance and disk usage:  
- StoreData: Stores data values of members. Do not set a parent member to Store if its children are set to Dynamic Calc; when users save and refresh data forms, the new total for the parent is not calculated.  
- NeverShare: Use for parent members that have only one child member aggregating to that parent, to apply security to the child member.  
- DynamicCalc: Use for members of dense dimensions or for data values that are being accessed concurrently by many users. In most cases, use for calculating members of sparse dimensions. Do not use for base-level members for which users enter data. Data values are not saved for Dynamic Calc members. Do not use for a parent member if data is entered for the member in target versions. Parent members set to Dynamic Calc are read-only in target versions. The Essbase limit is 100 children under a dynamic calc parent.  
  **Caution!** Changing the member storage to Dynamic Calc may result in loss of data, depending on how the data was derived. You may need to update outlines, calculations, or both to get the dynamically calculated value.  
- DynamicCalcAndStore: Calculates the data values of the member, then stores the values. In most cases, you can optimize calculations and lower disk usage by using Dynamic Calc instead of Dynamic Calc and Store when calculating members of sparse dimensions with complex formulas or members that users retrieve frequently.  
- LabelOnly: Use for virtual members to aid navigation or minimize database space, not for data. Members can display values. In multi-currency applications, you cannot apply LabelOnly data storage to the top members in these dimensions because this is where the exchange rates are stored: Entity, Versions, Currencies, and user-defined custom dimensions, which must use Never Share. Do not use for level 0 members. For data forms, do not use a label-only parent following its first child member.  
- ShareData: Allow members in the same dimension to share data values, enabling alternate rollup structures in the application. For shared members, you must set Data Storage to Share Data. Otherwise, the shared member is not added when the application is deployed to Planning.  
  When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value.  
  This property value is a relationship value. If you make changes to this value, it is not automatically changed for the members in other hierarchies.  
  **Default Value:** NeverShare | DataStorage |
| Two Pass Calculation | Recalculate data values of members that are based on data values of the parent member or other members. Available for Account and Entity members with Dynamic Calc or Dynamic Calc and Store properties  
  **Default Value:** False | TwoPassCalc |
| UDA | Defines any UDA (user-defined attribute) associated with the member. To enter multiple UDAs for a member, place a comma between the UDA members. For additional information on UDAs, see the Oracle Essbase Database Administrator's Guide.  
  The default UDA members are HSP_NOLINK and HSP_UDF.  
  **Default Value:** N/A | UDA |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Member Formula | An outline formula that is made up of a combination of operators, calculation functions, dimension and member names, and numeric constants to calculate values for individual members.  
*Default Value: N/A* | MemberFormula |
| Alias | Defines the alias table in which to store the alias name or an alternate member name. Use naming rules defined in "Naming Restrictions for Dimensions, Members, and Aliases" on page 537.  
*Default Value: N/A* | Alias |
| Aggregation | For Plan1, Plan2, Plan3, Workforce, or Capital Asset, determine how children roll up into parents during consolidation:  
- + (addition)  
- - (subtraction)  
- * (multiplication)  
- / (division)  
- % (percent)  
- ~ (ignore during consolidation)  
- Never (do not aggregate, regardless of hierarchy)  
When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value.  
This property value is a relationship value. If you make changes to this value, it is not automatically changed for the members in other hierarchies.  
*Default Value: Plan1: +, Plan2: +, Plan3: +, Workforce: ~, Capital Asset: ~* | Plan1Aggregation, Plan2Aggregation, Plan3Aggregation, WorkforceAggregation, CapexAggregation |
| Data Type | How values are stored and displayed:  
- Currency  
- Non Currency  
- Percentage  
- Smart List  
- Date  
- Text  
- Unspecified  
For accounts, if Data Type is set to any value except Currency, you must set Exchange Rate Type to None.  
*Default Value: Unspecified* | DataType |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Type</td>
<td>Attribute values to associate with the selected member, of type Text, Boolean, Date, or Number. For Planning, attribute values can only be assigned to a single level within a dimension. Create attribute values for attributes assigned to dimension members. You can filter members by attribute values when creating data forms and reports. You can assign attributes only to sparse dimensions. You cannot assign attributes to label-only members. If you need to add an attribute to a dense dimension, you must change that dimension to sparse for all plan types. If you change a dimension from sparse to dense, all attributes and attribute values for the dimension are automatically deleted. When you delete attribute members, all associated attribute values are also deleted. The values are removed from any members to which they had been assigned, and the attribute is removed from any dimensions to which it had been assigned.</td>
<td>AttributeDataType</td>
</tr>
<tr>
<td>Smart List</td>
<td>A unique name containing alphanumeric and underscore characters, and no special characters or spaces. See &quot;Working with Smart Lists (Planning Only)&quot; on page 100. Default Value: Text</td>
<td>SmartList</td>
</tr>
</tbody>
</table>

### Account

In addition to the properties described in the table, Account dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Two Pass Calculation
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type

Accounts specify information needed from budget planners. You can define calculations in the account structure. Account dimensions must have an association with Attribute and Alias dimensions in order to assign attribute values and aliases to members of the dimension. If accounts are valid for multiple plan types, specify the source plan type to determine which database stores the account value. For accounts with Dynamic Calc or Dynamic Calc and Store properties, you can use Two Pass Calculation to recalculate data values of members that are based on data values of the parent member or other members.
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Balance</td>
<td>Set the method for calculating the value of summary time periods: None, Flow, First, Balance, Average, Fill, Weighted Average - Actual Actual, Weighted Average - Actual 365, Last. &lt;br&gt;&lt;br&gt;Default Value: N/A</td>
<td>TimeBalance</td>
</tr>
<tr>
<td>Skip Value</td>
<td>If the time balance property is First, Balance, or Average, specify how database calculations treat zeros and missing values when calculating parent values: &lt;br&gt;&lt;br&gt;• None: Zeros and #MISSING values are considered &lt;br&gt;• Missing: Excludes #MISSING values &lt;br&gt;• Zeros: Excludes zero values &lt;br&gt;• Missing and Zeros: Excludes #MISSING and zero values &lt;br&gt;&lt;br&gt;When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. &lt;br&gt;&lt;br&gt;Default Value: None</td>
<td>SkipValue</td>
</tr>
<tr>
<td>Expense Reporting</td>
<td>Set whether the account is treated as an expense for variance reporting: &lt;br&gt;&lt;br&gt;• Expense: Actual value is subtracted from budgeted value &lt;br&gt;• Non Expense: Budgeted value is subtracted from actual value &lt;br&gt;&lt;br&gt;When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. &lt;br&gt;&lt;br&gt;Default Value: Non-Expense</td>
<td>VarianceReporting</td>
</tr>
<tr>
<td>Account Type</td>
<td>Define account time balance (how values flow over time) and sign behavior for variance reporting: Expense, Revenue, Asset, Liability, Equity, and Saved Assumption. &lt;br&gt;&lt;br&gt;When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. &lt;br&gt;&lt;br&gt;Default Value: Average (for multi-currency applications when Data Type is not set to Currency), or None (for single-currency applications, and when Data Type is set to Currency).</td>
<td>AccountType</td>
</tr>
<tr>
<td>Exchange Rate Type</td>
<td>Set how numeric values are stored in Account members and used to calculate values. This setting determines which exchange rate is used during calculations to calculate reporting currency values. For accounts with Currency data type, these options are valid for any time period: &lt;br&gt;&lt;br&gt;• None &lt;br&gt;• Average: Average exchange rate &lt;br&gt;• Ending: Ending exchange rate &lt;br&gt;• Historical: Exchange rate in effect at some point &lt;br&gt;&lt;br&gt;For accounts, if Data Type is set to any value except Currency, Exchange Rate Type must be set to None. &lt;br&gt;&lt;br&gt;When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. &lt;br&gt;&lt;br&gt;Default Value: Average (or None if Data Type is not set to Currency)</td>
<td>ExchangeRateType</td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Source Plan Type</td>
<td>If an account is used in multiple plan types, the plan type database that stores the account value. When an Account member is moved, valid plan types are determined by what is common to the member and its new parents. If the new parent has a different source plan type, the source plan type of the member is set to the first new valid plan type of that member. When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. If the new parent of an Account member has another source plan type, the source plan type is set to the first new valid plan type of that member. Default Value: Plan1</td>
<td>SourcePlanType</td>
</tr>
</tbody>
</table>

### Valid Combinations of Account Types and Dependent Properties

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Time Balance</th>
<th>Variance Reporting</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Flow</td>
<td>Non-Expense</td>
<td>Source of income</td>
</tr>
<tr>
<td>Expense</td>
<td>Flow</td>
<td>Expense</td>
<td>Cost of doing business</td>
</tr>
<tr>
<td>Asset</td>
<td>Balance</td>
<td>Non-Expense</td>
<td>Company resource</td>
</tr>
<tr>
<td>Liability and Equity</td>
<td>Balance</td>
<td>Non-Expense</td>
<td>Residual interest or obligation to creditors</td>
</tr>
<tr>
<td>Saved Assumption</td>
<td>User-defined</td>
<td>User-defined</td>
<td>Centralized planning assumptions to ensure consistency across an application</td>
</tr>
</tbody>
</table>

### Time Balance Property Examples

Time balance and variance reporting settings are system-defined.

<table>
<thead>
<tr>
<th>Time Balance Property</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>Aggregate of values for a summary time period as the period total.</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 45</td>
</tr>
<tr>
<td>First</td>
<td>Beginning value in a summary time period as the period total.</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 10</td>
</tr>
<tr>
<td>Balance</td>
<td>Ending value in a summary time period as the period total.</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 20</td>
</tr>
<tr>
<td>Average</td>
<td>Average</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 15</td>
</tr>
<tr>
<td>Fill</td>
<td>The value for the parent time period is filled into its descendents. If a child value changes, the default aggregation logic applies up to its parent.</td>
<td>Jan = 20, Feb = 20, Mar = 20, Q1 = 20</td>
</tr>
</tbody>
</table>
### Time Balance Properties

<table>
<thead>
<tr>
<th>Time Balance Property</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighted Average - Actual_Actual</td>
<td>Weighted daily average, based on the actual number of days in a year. Accounts for leap year, in which February has 29 days. In the example, the average for Q1 is calculated: (1) Multiply each value in Q1 by the number of days in the month, (2) Sum these values, (3) Divide the total by the number of days in Q1. Assuming it is a leap year, the result is calculated: [(10 \times 31 + 15 \times 29 + 20 \times 31) / 91 = 15]</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 5</td>
</tr>
<tr>
<td>Weighted Average - Actual_365</td>
<td>A weighted daily average, based on 365 days in a year, assuming that February has 28 days. Does not account for leap years. In the example, the average for Q1 is calculated: (1) Multiply each value in Q1 by the number of days in the month, (2) Sum these values, (3) Divide the total by the number of days in Q1. Assuming it is not a leap year, the result is calculated: [(10 \times 31 + 15 \times 28 + 20 \times 31) / 90 = 15]</td>
<td>Jan = 10, Feb = 15, Mar = 20, Q1 = 15</td>
</tr>
</tbody>
</table>

You can use the Weighted Average - Actual_Actual and Weighted Average - Actual_365 properties only with standard monthly calendars that roll up to four quarters. For information on how Planning calculates and spreads data, see the Oracle Hyperion Planning User's Guide.

### Examples of Account Calculation for Zeros and Missing Values

These examples assume that Time Balance is set to First.

<table>
<thead>
<tr>
<th>Skip Option</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Jan = 0, Feb = 20, Mar = 25, Q1 = 0</td>
</tr>
<tr>
<td></td>
<td>The value of the first child (Jan) is 0, and zero values are considered when calculating the parent value.</td>
</tr>
<tr>
<td>Missing</td>
<td>Jan = #MISSING, Feb = 20, Mar = 25, Q1 = 20</td>
</tr>
<tr>
<td></td>
<td>The value of the first child (Jan) is #MISSING, and #MISSING values are not considered when calculating parent values, so Q1 = second child (Feb), or 20.</td>
</tr>
<tr>
<td>Zeros</td>
<td>Jan = 0, Feb = 20, Mar = 25, Q1 = 20</td>
</tr>
<tr>
<td></td>
<td>The value of the first child (Jan) is 0, and zero values are not considered when calculating parent values, so Q1 = second child (Feb), or 20.</td>
</tr>
<tr>
<td>Missing and Zeros</td>
<td>Jan = 0, Feb = #MISSING, Mar = 25, Q1 = 25</td>
</tr>
<tr>
<td></td>
<td>The value of the first child (Jan) is zero, and second child (Feb) is #MISSING. Because #MISSING and zero values are not considered when calculating parent values, Q1 = third child (Mar), or 25.</td>
</tr>
</tbody>
</table>

### Currency

In addition to the properties described in the table, Currency dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Two Pass Calculation
You can plan, forecast, and analyze financial information in multiple currencies. You can set:

- Which currencies are used by applications for reporting
- How currencies display in reports and data forms
- How currencies are translated into other currencies
- Whether a third currency is used (triangulation currency)
- When currency conversions occur

For information on managing exchange rates, currency conversion, and exchange rate tables, see the Oracle Hyperion Planning Administrator’s Guide.

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thousands Separator</td>
<td>- None: 1000</td>
<td>ThousandSep</td>
</tr>
<tr>
<td></td>
<td>- Comma: 1,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Dot: 1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Space: 1 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Currency Setting: Setting for the currency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: Comma</td>
<td></td>
</tr>
<tr>
<td>Decimal Separator</td>
<td>- Dot: 1.00</td>
<td>DecimalSep</td>
</tr>
<tr>
<td></td>
<td>- Comma: 1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Currency Setting: Setting for the currency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: Dot</td>
<td></td>
</tr>
<tr>
<td>Negative Sign</td>
<td>- Prefixed Minus: -1000</td>
<td>NegativeSign</td>
</tr>
<tr>
<td></td>
<td>- Suffixed Minus: 1000-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Parentheses: (1000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Currency Setting: Setting for the currency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: Prefixed Minus</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Negative Color</td>
<td>• Black: Negative numbers in black</td>
<td>NegativeColor</td>
</tr>
<tr>
<td></td>
<td>• Red: Negative numbers in red</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Currency Setting: Setting for the currency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: Red</td>
<td></td>
</tr>
<tr>
<td>Scale</td>
<td>Scaling determines the display of values in whole numbers, tens, hundreds,</td>
<td>Scale</td>
</tr>
<tr>
<td></td>
<td>thousands, millions, and so on. Set how to enter and display the currency.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For example, 3 yen represents 3000 yen if scaling is set to Thousands.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Whole</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Tens</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hundreds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Thousands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TThousands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• HThousands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Millions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• TMillions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• HMillions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Billions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: Whole</td>
<td></td>
</tr>
<tr>
<td>Currency Code</td>
<td>Market-established abbreviation for the currency name, or custom currency</td>
<td>CurrencyCode</td>
</tr>
<tr>
<td></td>
<td>code that you create.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: N/A</td>
<td></td>
</tr>
<tr>
<td>Symbol</td>
<td>Market-established currency symbol for the currency name, for example, $ for</td>
<td>Symbol</td>
</tr>
<tr>
<td></td>
<td>US Dollars.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: N/A</td>
<td></td>
</tr>
<tr>
<td>Triangulation Currency</td>
<td>Interim currency for currency conversion. If you modify a triangulation</td>
<td>Triangulation</td>
</tr>
<tr>
<td></td>
<td>currency, you must re-enter exchange rates for the triangulation currency</td>
<td>Currency</td>
</tr>
<tr>
<td></td>
<td>property and refresh the application to transfer and store the exchange</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rates. You cannot select the default currency as a triangulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>currency.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When you define the value for this property at the parent level, all</td>
<td></td>
</tr>
<tr>
<td></td>
<td>descendants automatically inherit the value. If the value is overridden for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a descendant member of the original parent, its own descendants inherit the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>new value.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: N/A</td>
<td></td>
</tr>
<tr>
<td>Reporting Currency</td>
<td>Currency used to prepare financial statements. Converted reporting currency</td>
<td>ReptCurrency</td>
</tr>
<tr>
<td></td>
<td>values are stored and read-only for all users.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Default Value: N/A</td>
<td></td>
</tr>
</tbody>
</table>
Entity

In addition to the properties described in the table, Entity dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type
- Attribute Values

You can create Entity members for groups that submit plans for approval, such as regions, countries, and departments. Data forms support multiple currencies per entity, enabling data entry for multiple currencies and reporting against one currency. You can set the currency for entered values, which are converted to other currencies with defined exchange rates.

The Entity dimension requires an association with the Currency dimension in order to enter a value for Base Currency. For multi-currency applications, the Currency dimension must be associated with the base entity dimension. Entity dimensions require an association with Attribute and Alias dimensions to be able to assign attribute values and aliases to members of the dimension. You can activate associations for applications in the Shared Library by right-clicking the name and selecting Activate all Associations.

Typically, Entity members prepare different plans. When defining Entity members, specify plan types for which they are valid. Because data forms are associated with plan types, you can control which entity members can enter data for each plan type.

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency</td>
<td>Enter the three-letter currency code, for example, USD (for US dollars). For multi-currency applications, specify the base currency for each Entity member. Not applicable for aggregate storage outlines. When you define the value for this property at the parent level, all descendants automatically inherit the value. If the value is overridden for a descendant member of the original parent, its own descendants inherit the new value. <em>Default Value: Application’s default currency</em></td>
<td>Currency</td>
</tr>
</tbody>
</table>
Period

In addition to the properties described in the table, Period dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type
- Attribute Values

Use the Period dimension to view and change the yearly rollup structure. You can specify base time periods and the number of weeks.

After the calendar is created, you cannot change the base time period. An application can have up to 500 time periods. Actual limits are defined by a combination of calendar years and time periods. The number of time periods and years also depends on whether your application uses multiple currencies. These practical limits are recommended: 400 time periods per year and 27 years, or 360 time periods per year and 30 years.

You can add and change summary time periods or the BegBalance member, including updating the name, description, alias, starting period, and ending period. You cannot skip or change the order of base time periods. The range cannot extend beyond the current fiscal year. To enforce a balanced hierarchy for 12 Month and Quarterly base Time Periods, all base members must be the same number of levels from the root.

For successful deployment, Planning applications must include the required members BegBalance and YearTotal. YearTotal is the summary time period that aggregates Quarters or Weeks (for custom time periods).

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Beginning Balance</td>
<td>Whether to use the BegBalance time period.</td>
<td>UseBegBalance</td>
</tr>
<tr>
<td></td>
<td><em>Default Value: N/A</em></td>
<td></td>
</tr>
<tr>
<td>Period Type</td>
<td>The type of Period: Base Time Period, Summary Time Period, Year Time Period,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Alternate Time Period.</td>
<td></td>
</tr>
</tbody>
</table>

Period 529
Considerations for Alternate Hierarchies in Period Dimensions

When using alternate hierarchies, note these considerations:

- The Period type **Alternate Time Period** must be set on all alternate hierarchy members.
- The parent for an alternate hierarchy member can be either the root member of the Period dimension (such as Period) or another alternate hierarchy member.

Scenario

In addition to the properties described in the table, Scenario dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type

You can create Scenario dimensions to group data. Each Scenario contains data for accounts and other dimensions of each entity. After users enter Entity and Version data, they can submit or promote the data to other users for review and approval. The intersection of Entity, Scenario, and Version is called a planning unit. Planning tracks planning unit status through the review process. Scenarios can cover different time spans. The Scenario dimension requires an association with Period and Year dimensions to enter start and end time period values.

Use scenarios to:

- Apply different planning methods.
- Create forecasts and budgets.
- Store historical actuals.

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Process Management</td>
<td>Whether the Scenario is enabled for process management. This allows managing a planning unit that contains this member.</td>
<td>EnableProcessManagement</td>
</tr>
<tr>
<td><strong>Default Value:</strong> True</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
You can specify access permissions for Scenario members to determine whether groups or users can view or modify data. For information about setting access permissions for Planning, see the *Oracle Hyperion Planning Administrator’s Guide*.

When you delete a Scenario, all planning units that use the Scenario (including data) are deleted. You cannot delete a Scenario that is used in a planning unit that is started or assigned to an axis (row or column) on a data form. You must first remove references to the Scenario from data forms and assign a different Scenario.

**Version**

In addition to the properties described in the table, Version dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type

Use the Version dimension to:

- Provide multiple iterations of a plan, such as preliminary and final
- Model possible outcomes based on assumptions such as best case and worst case
- Control plan data, such as internal and external
- Facilitate target setting
Versions are independent of Scenarios. You can change Version names and access permissions. The application must have at least one Version. For information on setting access permissions, see the Oracle Hyperion Planning Administrator’s Guide.

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Process Management</td>
<td>Select whether the Version is enabled for process management. This allows for managing a planning unit that contains this Version member. Not available for target versions. Default Value: N/A</td>
<td>EnableProcessManagement</td>
</tr>
<tr>
<td>Version Type</td>
<td>Target: Users enter data for members at any level, and use business rules to distribute values from parent members to descendants. Use target versions to set high-level targets for plans. Planners working with bottom-up versions can reference targets when entering plan data. Target versions use top-down budgeting. Workflow tasks are not allowed, and children of target members must be blank (for example, #MISSING) to enable data input at the top level. Target members must be set to Store (Dynamic Calc overrides data input with the sum of children). Bottom Up: Users enter data into bottom-level members. Parent-level members are read-only. Values for parent members are aggregated from bottom level members. Default Value: Bottom Up</td>
<td>VersionType</td>
</tr>
</tbody>
</table>

**Year**

Year dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type
- Attribute Values

Use the Year dimension to add years to the calendar. Year dimension names must start with FY, followed by a two-digit year, such as FY08. Start Year is based on the first Year member in the Year dimension structure. You cannot modify the Start Year of an application after it is deployed. However, you can add years on to the end of the initial year range identified.

The first year member in the Year dimension and Start Year property must describe the same year. For example, if the Start Year is 2008, the first year in the Year dimension must be FY08.
If there is a discrepancy between the years, such as 2008 and FY07, an error displays and the application cannot be deployed.

You can add, change, or assign aliases to years. You cannot reduce the number of calendar years unless you create a new database. Performance Management Architect adds No Year as a system member, as the first member in the Year dimension. In Performance Management Architect, No Year is saved as the first member in the Year dimension, but it is saved as the last year in the Planning repository.

**Custom Dimensions**

In addition to the properties described in the table, Account dimension members use most of the common properties described in “Properties Applicable to All Planning Dimensions” on page 517, such as:

- Valid for Plan
- Two Pass Calculation
- Aggregation
- UDA
- Member Formula
- Alias
- Data Storage
- Smart List
- Data Type

Use the Apply Security property to apply security to the custom dimension. Custom dimensions must follow the naming conventions in “Naming Restrictions for Dimensions, Members, and Aliases” on page 537. Ensure that dimension names and aliases are unique. They can contain up to 80 characters, including spaces. Descriptions have up to 255 characters.

**Planning Aliases**

Aliases are alternate names, descriptions, languages, or other items that help define dimensions. You can assign aliases to accounts, currencies, entities, scenarios, periods, versions, years, and user-defined dimension members. For detailed information about creating and updating aliases, see the topic on Alias Dimensions.

If a base dimension, such as Entity, has an active association with the Alias dimension, and an entity member has an alias defined for the selected alias table, the alias is displayed in the Alias field in the Planning category. When applications are deployed to Planning, child members of the Alias dimension become Alias Tables, and must include a member named Default. Alias names must follow naming requirements described in “Naming Restrictions for Dimensions, Members, and Aliases” on page 537.
Planning Attributes

You can use attributes to facilitate grouping, selecting, or calculating data by creating hierarchies and assigning aliases. Attribute names must be unique, and must follow the naming conventions in “Naming Restrictions for Dimensions, Members, and Aliases” on page 537. Attribute data type can include Text, Boolean, Date, Numeric. For detailed information about attributes and attribute values, see the Oracle Essbase Database Administrator’s Guide.

You can assign attributes only to sparse dimensions. When sparse dimensions are changed to dense, all attributes and attribute values for the dimension are automatically deleted. You cannot assign attributes to label-only members. Dimensions such as Entity and Product must be associated with Attribute and Alias dimensions to enable assigning attribute values and aliases. Before upgrading Classic Planning applications to Performance Management Architect, you must remove any spaces in the names of attribute dimensions.

If you change or delete attributes, you must update and validate business rules, reports, and data forms. When you delete attributes, all associated attribute values are deleted and removed from custom dimension members to which they are assigned. When using Import Profiles to load attribute values, you must create attribute dimensions before loading. Note, before upgrading applications, you must remove spaces in attribute dimension names.

Planning UDAs

UDAs are words or phrases used to describe characteristics of members—within calculation scripts, member formulas, and reports so that they return lists of members associated with the specified UDA. You can use user-defined attribute (UDA) dimensions for UDAs that you create for members in multiple dimensions. For information on UDAs, see “Working with User-Defined Attributes” on page 132.

Working with Planning 9.3.1 and Performance Management Architect

If you are using Planning 9.3.1 with the current release of Performance Management Architect, you can use most of the current Performance Management Architect features. However, some features are not available with Planning 9.3.1, such as creating data sources and using the new attribute types, Boolean, Date, and Number. For compatibility information, see the Oracle Hyperion Enterprise Performance Management System Installation Start Here guide.

Considerations for Working with Essbase

Creating and refreshing on the Planning Manage Database page affects data in the Essbase database. When you click Create, data is erased and Planning plan types are rebuilt. When you click Refresh, data might be replaced. For important information, see the Oracle Hyperion Planning Administrator's Guide.
If you upgrade an application created in Classic application administration to Performance Management Architect, you cannot return to working with that application in Classic application administration. Modifying Essbase outlines directly through Oracle Essbase Administration Services is not supported.

When you refresh Planning applications, the Essbase database makes these changes:

- If a member does not exist in the Planning relational database, the member and its properties, attributes, and User-Defined Attributes (UDAs) are not retained in Essbase on Refresh.
- Planning first retrieves member properties from any existing member in Essbase, then sets and overrides any member property definable in Planning.

This behavior is different from prior releases, where the refresh process was incremental and retained modifications made directly to the outline in Essbase, even where those members, attributes, and UDAs did not exist in Planning.

The `HSP_UDF` UDA preserves member formulas defined outside of Performance Management Architect. Unassigning them through Performance Management Architect refresh does not unassign the UDAs from members in the Essbase outline. If a member with the `HSP_UDF` UDA is added directly in Essbase, refreshing the database preserves any formula on this member in Essbase, and does not generate a formula placeholder (;) on members that are level zero and dynamic calc. Other UDAs, such as custom UDAs and the `HSP_NOLINK` UDA, are retained only if defined in Performance Management Architect or in Planning (for Classic applications).

Because member formula support is available in Performance Management Architect and Planning (for Classic applications) there is less need for the `HSP_UDF` UDA. Every effort should be made to define UDAs in Performance Management Architect or in Planning (for Classic applications).

The `@XREF` function looks up a data value from another database to calculate a value from the current database. You can add the `HSP_NOLINK` UDA to members to prevent the `@XREF` function from being created on all plan types that are not the source plan type selected for that member. For more information on UDAs and functions, see the *Oracle Essbase Database Administrator’s Guide*.

It is not necessary to modify Essbase outlines directly for the most commonly used Essbase member properties. Performance Management Architect and Planning support Dynamic Time Series in the Period dimension, alternate hierarchy in the Period dimension, hierarchies in Scenario and Version dimensions, and hierarchy and aliases for attribute dimensions.

Use these guidelines for working in Essbase while logged on as a supervisor or application administrator:

- Do not change dense/sparse dimension settings or the order of dimensions in Essbase.
- You can use any attribute dimension type, including text, Boolean, numeric, and date.
- Do not use Link Reporting Objects (LRO).
- Do not change the Time Balance default settings. The defaults are Ending for Balance and None for Flow.
Do not change the Variance Reporting settings. These are preset for all account types except Saved Assumptions. For Saved Assumptions account types, Expense and Non-Expense are valid settings.

Back up the database before refreshing.

**Naming Restrictions for Applications (Essbase)**

For detailed information on creating Essbase applications and databases, see the Essbase product documentation.

When naming Planning or Essbase reporting applications, follow these rules:

- For non-Unicode mode applications and databases, use no more than 8 bytes; for Unicode-mode applications and databases, use no more than 30 characters.
- Do not use spaces.
- Do not use these special characters:
  - asterisks
  - backslashes
  - brackets
  - colons
  - commas
  - equal signs
  - greater than signs
  - less than signs
  - periods
  - plus signs
  - question marks
  - quotation marks (double and single)
  - semicolons
  - slashes
  - tabs
  - vertical bars
- For Planning application names in relational database environments, do not use extended characters (except for underscores).
- For aggregate storage databases, do not use DEFAULT, LOG, METADATA, or TEMP as application names.

Enter names in the preferred case. Application names are created exactly as entered.
Naming Restrictions for Dimensions, Members, and Aliases

When naming dimensions, members, and aliases, follow these rules:

- For non-Unicode mode dimensions, members, or aliases, use no more than 80 bytes. For Unicode-mode dimensions, members, or aliases, use no more than 80 characters.
- Distinguish between upper and lower case only if case sensitivity is enabled.
- Do not use HTML tags in member names, dimension names, aliases, and descriptions.
- Do not use quotation marks, brackets, backslashes, or tabs. Brackets are permitted but not recommended in block storage outlines. They cause errors when converting to aggregate storage outlines.
- To begin dimension or member names, do not use these characters:
  - at signs
  - backslashes
  - brackets
  - commas
  - dashes, hyphens, or minus signs
  - equal signs
  - less than signs
  - parentheses
  - periods
  - plus signs
  - quotation marks
  - underscores
  - vertical bars
- Do not place spaces at the beginning or end of names. Essbase ignores such spaces.
- Do not use forward slashes in member names.
- For time periods in custom calendars, do not use spaces in prefixes.
- Do not use these words as dimension or member names:
  - Calculation script commands, operators, and keywords; for a list of commands, see the Essbase product documentation.
  - Report writer commands.
  - Function names and function arguments.
  - Names of other dimensions and members (unless the member is shared), and generation names, level names, and aliases in the database.
  - These words:
If Dynamic Time Series is enabled, do not use History, Year, Season, Period, Quarter, Month, Week, or Day.

Working with Planning Flat Files

If you are using .ads flat files created in previous releases, you must make manual updates before using them in the current release. You can use regular or simple flat files.

Using Flat Files Created in Release 9.3.1

If you are using .ads flat files created in release 9.3.1, you must update the .ads files before using them in the current release for the features described in this section. Make the updates described in the following sections, depending on the contents of your flat files.

If you are using flat files created in 9.3.1 with Performance Management Architect release 11.1.1.x, you must make these updates:

- Replace the WeeksDistributionMember property in the Account Hierarchies section with True if the original value is Even.
- Move the PeriodType property from the Period Members section to the Period Hierarchies section.

Updating Member Formulas with Quotation Marks

If your flat files contain member formulas, you must clear Remove double quotes on strings in the New Profile dialog box to keep quotation marks intact in member formulas.

Updating AttributeDataType

To define attribute data types, add AttributeDataType to the Dimensions section to specify the type of attribute dimension being defined, Text, Boolean, Numeric, or Date. If left blank, the attribute dimension type defaults to Text.

Example:

!Section=Dimensions  
'Name|DimensionClass|DimensionAlias|DimDataStorage|DimTwoPassCalc|Plan1Density|Plan2Density|Plan3Density|WorkforceDensity|CapexDensity|AttributeDataType|EnumOrder1|EnumOrder2|EnumOrder3|EnumOrderWF|EnumOrderCapex|DimValidForPlan1|DimValidForPlan2|DimValidForPlan3|DimValidForWorkforce|DimValidForCapex|Plan1PerfOrder|Plan2PerfOrder|Plan3PerfOrder|WorkforcePerfOrder|CapexPerfOrder|MissingLabel|DisplayOrder|GridMissingLabelType|AutoGenId|SmartListLabel
Updating Account Properties

For Account, delete the ExchangeRateType property from the Members=Account section, and add it to the Hierarchies=Account section, as shown in this example:

```
!Members=Account
 'Name|DataType|SourcePlanType|AccountType|VarianceReporting|TimeBalance|SmartList|UDA|
 TwoPassCalc|SkipValue|Description|MemberFormula
 100|Currency|Plan1|Revenue|NonExpense|Flow

!Hierarchies=Account
 'Parent|Child|DataStorage|ExchangeRateType|MemberValidForPlan1|MemberValidForPlan2|MemberValidForPlan3|MemberValidForWorkforce|MemberValidForCapex|Plan1Aggregation|Plan2Aggregation|Plan3Aggregation|WorkforceAggregation
 #root|100|NeverShare|Average|Y|Y|N|+|+|+|+
```

Updating Dynamic Time Series (DTS)

In the current release, DTS members are not required in flat files because these members can be added using the DTS Manager dialog box. In addition, DTS members are treated differently than in previous releases. If an .ads flat file was generated in a prior release and contains DTS members, you must delete the DTS member rows from these sections: Members=Period, !Hierarchies=Period, and PropertyArray=Period.

Example:

```
!Members=Period
 'Name|DataType|SmartList|TwoPassCalc|DTSGlobal|DTSEnabled|UDA|Description|MemberFormula
 Y-T-D|Unspecified|0|N||
 H-T-D|Unspecified|0|N||
 S-T-D|Unspecified|1|Y||
 Q-T-D|Unspecified|3|Y||
 P-T-D|Unspecified|0|N||
 M-T-D|Unspecified|0|N||
```
Updating UDAs

In the current release, UDAs are treated as dimensions in Performance Management Architect. In 9.3.1, UDA was a property in the Members section of the flat file.

To update UDAs in flat files for the current release:

1. **Add a row for the UDA dimension to** `Section=Dimensions`. For example:
   
   ```
   UDA|UDA|UDA|UDA
   1  2  3  4
   ```

2. **For each dimension where members might have UDAs, add a row to associate the UDA dimension with a base dimension in** `Section=DimensionAssociations`. For example:
   
   ```
   Scenario|UDA|UDA
   1  2
   ```

3. **Add a row to the PropertyArray section of each dimension that has a UDA assigned to a member. Specify the member and the UDA value assigned to the member. In this example, Current is the Scenario member referenced in the PropertyArray=Scenario section, and CURRENT_UDA is the member in the UDA dimension that is associated with the Current member in the Scenario dimension:**

   ```
   !PropertyArray=Scenario
   UDA|Current|CURRENT_UDA
   ```

4. **At the end of the .ads flat file, add a Members section for the UDA dimension. For example:**

   ```
   !Members=UDA
   'Name
   CURRENT_UDA
   ```

5. **At the end of the .ads flat file, add a Hierarchies section for the UDA dimension. For example:**

   ```
   !Hierarchies=UDA
   'Parent|Child
   #root|CURRENT_UDA
   ```
If a flat file was generated prior to the current release, and a UDA property exists in the Members section of a dimension, you do not need to remove the property or update the members by deleting | characters to match the new property count. This property is ignored when the profile is created, and the file is imported into Performance Management Architect.

Example:

!Members=Scenario
'Name|DataType|StartYear|EndYear|StartPeriod|EndPeriod|UseBegBalance|
EnableProcessManagement|SmartList|ExchangeRateTable|UDA|Description

Using Flat Files Created in Planning 9.3.0.1

For flat files created in Planning 9.3.0.1 that include DTS members, update files for the current release. For flat files created in the current release, no modifications are necessary for DTS members.

Updating the Period Type

To use DTS with flat files created in Planning 9.3.0.1, you must update the files as described in this procedure.

To update the period type:

1. Back up the original .ads flat file by saving it with a different name.
2. Open the original .ads flat file in a text editor.
3. Using cut and paste, move the Period Type property from the Member section to the Hierarchies section.
4. Save the updated .ads flat file with the same name as the original file, and in the same location.

Sample Planning Flat Files (Regular)

This example shows a regular flat file that can be used for Planning.

!FILE_FORMAT=ADS
!VERSION=1.0

!Section=Dimensions
(Name|DimensionClass|DimensionAlias|DimDataStorage|Plan1Density|Plan2Density|
Plan3Density|WorkforceDensity|CapexDensity|EnumOrder1|EnumOrder2|EnumOrder3|EnumOrderWF|
EnumOrderCapex|DimValidForPlan1|DimValidForPlan2|DimValidForPlan3|DimValidForWorkforce|
DimValidForCapex|
Colors|Attribute|Colors|Account|Account|Account|NeverShare|Dense|Dense|NeverShare|Dense|Dense|0|0|0|0|Y|Y|N|
Currency|Currency|Currency|NeverShare|Sparse|Sparse|Sparse|Sparse|0|0|0|0|Y|Y|Y|N|
Entity|Entity|Entity|NeverShare|Sparse|Sparse|Sparse|Sparse|0|0|0|0|Y|Y|Y|N|
NewCustomDimension|Generic|NewCustomDimension|NeverShare|Sparse|Sparse|Sparse|Sparse|0|0|0|0|Y|Y|Y|N|
Period|Period|Period|NeverShare|Dense|Dense|Dense|Dense|0|0|0|0|Y|Y|Y|N|
Scenario|Scenario|Scenario|NeverShare|Sparse|Sparse|Sparse|Sparse|0|0|0|0|Y|Y|Y|N|
Version|Version|Version|NeverShare|Sparse|Sparse|Sparse|Sparse|0|0|0|0|Y|Y|Y|N|

Working with Planning Flat Files 541
Working with Planning Dimensions
Local|Unspecified|null|Whole|None|Dot||Black|N|||Local currency
USD|Unspecified|$|Whole|None|Dot||Black|Y|||United States of America dollar
DEM|Unspecified|DM|Whole|None|Dot||Black|Y|||Germany deutsche mark
EUR|Unspecified|€|Whole|None|Dot||Black|Y|||European Union Euro
FRF|Unspecified|F|Whole|None|Dot||Black|Y|EUR|||France franc
IEP|Unspecified|IR£|Whole|None|Dot||Black|Y|||Ireland punt

!Hierarchies=Currency
'Parent|Child|DataStorage|MemberValidForPlan1|MemberValidForPlan2|MemberValidForPlan3|
MemberValidForWorkforce|MemberValidForCapex
#root|Local|StoreData|Y|Y|Y|N|
#root|USD|StoreData|Y|Y|Y|N|
#root|DEM|StoreData|Y|Y|Y|N|
#root|EUR|StoreData|Y|Y|Y|N|
#root|FRF|StoreData|Y|Y|Y|N|
#root|IEP|StoreData|Y|Y|Y|N|

!PropertyArray=Currency
'Property|Name|Key|Value
Alias|DEM|Default|Alias_DEM
Alias|FRF|Default|Alias_FRF

!Members=Entity
'Name|DataType|Currency|SmartList|UDA|Colors|Description
ParentMMM|Unspecified|USD||||
Mem_3|Unspecified|USD||| |
Mem_2|Unspecified|USD||| |
Mem_1|Unspecified|USD||| |
ParentMMM_Shared|Unspecified|USD||| |
Canada|Unspecified|USD||| |
United States|Unspecified|USD||| blue |
Oregon|Unspecified|USD||| |
California|Unspecified|USD||| |
San Francisco|Unspecified|USD||| |
Washington|Unspecified|USD||| |
East|Unspecified|USD||| |
NY|Unspecified|USD||| |
West|Unspecified|USD||| |
CA|Unspecified|USD||| |
WA|Unspecified|USD||| |
NJ|Unspecified|USD||| |

!Hierarchies=Entity
'Parent|Child|DataStorage|MemberValidForPlan1|MemberValidForPlan2|MemberValidForPlan3|
MemberValidForWorkforce|MemberValidForCapex|Plan1Aggregation|Plan2Aggregation|Plan3Aggregation|WorkforceAggregation
#root|ParentMMM|NeverShare|Y|Y|Y|N|+|+|+|+
ParentMMM|Mem_3|NeverShare|Y|Y|Y|N|+|+|+|+
ParentMMM|Mem_2|NeverShare|Y|Y|Y|N|+|+|+|+
ParentMMM|Mem_1|NeverShare|Y|Y|Y|N|+|+|+|+
#root|ParentMMM_Shared|NeverShare|Y|Y|Y|N|+||+|+
ParentMMM_Shared|Mem_3|ShareData|Y|Y|Y|N|+|+|+|+
ParentMMM_Shared|Mem_2|ShareData|Y|Y|Y|N|+|+|+|+
ParentMMM_Shared|Mem_1|ShareData|Y|Y|Y|N|+|+|+|+
#root|Canada|NeverShare|Y|Y|Y|N|+|+|+|+
#root|United States|NeverShare|Y|Y|Y|N|+|+|+|+
United States|Oregon|NeverShare|Y|Y|Y|N|+|+|+|+

Working with Planning Flat Files 543
Working with Planning Dimensions
<table>
<thead>
<tr>
<th>#root</th>
<th>BegBalance</th>
<th>StoreData</th>
<th>Y</th>
<th>Y</th>
<th>N</th>
<th>N</th>
<th>Base Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>#root</td>
<td>YearTotal</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Year Time Period</td>
</tr>
<tr>
<td>YearTotal</td>
<td>Q1</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q1</td>
<td>Jan</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q1</td>
<td>Feb</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q1</td>
<td>Mar</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>YearTotal</td>
<td>Q2</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q2</td>
<td>Apr</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q2</td>
<td>May</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q2</td>
<td>Jun</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>YearTotal</td>
<td>Q3</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q3</td>
<td>Jul</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q3</td>
<td>Aug</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q3</td>
<td>Sep</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>YearTotal</td>
<td>Q4</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Q4</td>
<td>Oct</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q4</td>
<td>Nov</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
<tr>
<td>Q4</td>
<td>Dec</td>
<td>StoreData</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Base Time Period</td>
</tr>
</tbody>
</table>

![PropertyArray=Period

* Property|Name|Key|Value
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Aug</td>
<td>Default</td>
<td>Alias_Aug_New</td>
</tr>
</tbody>
</table>

![Members=Scenario

* Name|DataType|StartYear|EndYear|StartPeriod|EndPeriod|UseBegBalance|EnableProcessManagement|SmartList|ExchangeRateTable|UDA|Description
| Current | Unspecified | FY06 | FY09 | Jan | Dec | N | Y | || |
| A_Scenario | Unspecified | FY06 | FY06 | Jan | Jan | N | Y | A_FXRate |
| B,_Scenario | Unspecified | FY06 | FY06 | Jan | Dec | N | Y | A_FXRate |

![Hierarchies=Scenario

* Parent|Child|DataStorage|MemberValidForPlan1|MemberValidForPlan2|MemberValidForPlan3|MemberValidForWorkforce|MemberValidForCapex
| #root | Current | StoreData | Y | Y | N |
| #root | A_Scenario | StoreData | Y | Y | N |
| #root | B,_Scenario | StoreData | Y | Y | N |

![PropertyArray=Scenario

* Property|Name|Key|Value
| Alias | A_Scenario | Default | Alias_A_Scenario |
| Alias | B,_Scenario | Default | Alias_B,_Scenario |

![Members=Version

* Name|DataType|VersionType|EnableProcessManagement|SmartList|UDA|Description
| BU Version_1 | Unspecified | BottomUp | Y | |
| A_Version | Unspecified | BottomUp | Y | |
| B,_Version | Unspecified | BottomUp | Y | |
| C,_Version | Unspecified | Target | N | |
| D_Version | Unspecified | Target | N | |

![Hierarchies=Version

* Parent|Child|DataStorage|MemberValidForPlan1|MemberValidForPlan2|MemberValidForPlan3|MemberValidForWorkforce|MemberValidForCapex
| #root | BU Version_1 | StoreData | Y | Y | N |
| #root | A-Version | StoreData | Y | Y | N |
| #root | B,_Version | StoreData | Y | Y | N |
| #root | C,_Version | StoreData | Y | Y | N |
Sample Planning Flat Files (Simple)

This example shows a simple flat file that can be used for Planning. With simple flat files, the Members and Property Array sections are not included, and the information from those sections is moved to the Hierarchies section.

!FILE_FORMAT=ADS
!VERSION=1.0
Working with Planning Flat Files
MemberValidForWorkforce | MemberValidForCapex | DataType | Symbol | Scale | ThousandSep |
DecimalSep | NegativeSign | NegativeColor | ReptCurrency | TriangulationCurrency | CurrencyCode |
SmartList | UDA | Description | Alias=Default |
#root | Local | StoreData | Y | Y | N | Unspecified | null | Whole | None | Dot | Prefixed Minus | Black | N | | Local currency |
#root | USD | StoreData | Y | Y | N | Unspecified | $ | Whole | None | Dot | Prefixed Minus | Black | N | | United States of America dollar |
#root | DEM | StoreData | Y | Y | N | Unspecified | DM | Whole | None | Dot | Prefixed Minus | Black | Y | | Germany deutsche mark | Alias=DEM |
#root | EUR | StoreData | Y | Y | N | Unspecified | € | Whole | None | Dot | Prefixed Minus | Black | Y | | European Union Euro |
#root | FRF | StoreData | Y | Y | N | Unspecified | IR£ | Whole | None | Dot | Prefixed Minus | Black | Y | | France franc | Alias_FRF |
#root | IEP | StoreData | Y | Y | N | Unspecified | IR£ | Whole | None | Dot | Prefixed Minus | Black | Y | | Ireland punt |

Hierarchies=Entity
'Parent | Child | DataStorage | MemberValidForPlan1 | MemberValidForPlan2 | MemberValidForPlan3 |
MemberValidForWorkforce | MemberValidForCapex | Plan1Aggregation | Plan2Aggregation |
Plan3Aggregation | WorkforceAggregation | DataType | Currency | SmartList | UDA | Description | Alias=Default |
#root | ParentMMM | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM | Mem_3 | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM | Mem_2 | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM | Mem_1 | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
#root | ParentMMM_Shared | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM_Shared | Mem_3 | ShareData | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM_Shared | Mem_2 | ShareData | Y | Y | N | + | + | + | + | Unspecified | USD | |
ParentMMM_Shared | Mem_1 | ShareData | Y | Y | N | + | + | + | + | Unspecified | USD | |
#root | Canada | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
#root | United States | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
United States | Oregon | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
United States | California | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
California | San Francisco | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |
United States | Washington | NeverShare | Y | Y | N | + | + | + | + | Unspecified | USD | |

Hierarchies=NewCustomDimension
'Parent | Child | DataStorage | MemberValidForPlan1 | MemberValidForPlan2 | MemberValidForPlan3 |
MemberValidForWorkforce | MemberValidForCapex | Plan1Aggregation | Plan2Aggregation |
Plan3Aggregation | WorkforceAggregation | DataType | SmartList | UDA | Description | Alias=Default |
#root | One | NeverShare | Y | Y | N | + | + | + | + | Unspecified | |

Hierarchies=Period
'Parent | Child | DataStorage | MemberValidForPlan1 | MemberValidForPlan2 | MemberValidForPlan3 |
MemberValidForWorkforce | MemberValidForCapex | DataType | SmartList | UDA | Description | Alias=Default |
#root | BegBalance | StoreData | Y | Y | N | Unspecified | || | Base Time Period |
#root | YearTotal | StoreData | Y | Y | N | Unspecified | || | Year Time Period |
YearTotal | Q1 | StoreData | Y | Y | N | Unspecified | || | Summary Time Period |
Q1 | Jan | StoreData | Y | Y | N | Unspecified | || | Base Time Period |
Q1 | Feb | StoreData | Y | Y | N | Unspecified | || | Base Time Period |
Q1 | Mar | StoreData | Y | Y | N | Unspecified | || | Base Time Period |

548 Working with Planning Dimensions
| Year/Quarter | Month | Store Data | Member Valid For Plan 1 | Member Valid For Plan 2 | Member Valid For Plan 3 | Member Valid For Workforce | Member Valid For Capex | Data Type | Start Year | End Year | Start Period | End Period | Use Beg Balance | Enable Process Management | Smart List | Exchange Rate Table | UDA | Description | Alias  |
|--------------|-------|------------|--------------------------|------------------------|------------------------|----------------------------|------------------------|-------------|------------|-----------|-----------|-------------|-----------|-------------------|------------------------|-----------|---------------------|------|-----------|-------|
| Year Total   |       |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q2           | Apr   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q2           | May   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q2           | Jun   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Year Total   | Q3    |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q3           | Jul   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q3           | Aug   | Alias Aug New |                        |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q3           | Sep   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Year Total   | Q4    |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q4           | Oct   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q4           | Nov   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|
| Q4           | Dec   |            |                          |                        |                        |                            |                        |             |            |           |            |             |           |                   |                        |          |                     |      |-----------|-------|

Hierarchies: Scenario

- **Parent:** Store Data | **Child:** Year
- **Member Valid For Plan 1:** Y | **Member Valid For Plan 2:** Y | **Member Valid For Plan 3:** N
- **Member Valid For Workforce:** Y | **Member Valid For Capex:** N
- **Data Type:** Store Data | **Start Year:** FY06 | **End Year:** FY09 | **Start Period:** Jan | **End Period:** Dec | **Use Beg Balance:** N | **Enable Process Management:** Y | **Smart List:** | **Exchange Rate Table:** | **UDA:** | **Description:** Alias

Hierarchies: Version

- **Parent:** Store Data | **Child:** Year
- **Member Valid For Plan 1:** Y | **Member Valid For Plan 2:** Y | **Member Valid For Plan 3:** N
- **Member Valid For Workforce:** Bottom Up | **Member Valid For Capex:** Bottom Up | **DataType:** Version | **Version Type:** Bottom Up | **Enable Process Management:** Y | **Smart List:** | **UDA:** | **Description:** Alias

Hierarchies: Year

- **Parent:** Store Data | **Child:** Alias
- **Member Valid For Plan 1:** Y | **Member Valid For Plan 2:** Y | **Member Valid For Plan 3:** N
- **Member Valid For Workforce:** Bottom Up | **Member Valid For Capex:** Bottom Up | **DataType:** Target | **Smart List:** | **UDA:** | **Description:** Alias

Hierarchies: Alias

- **Parent:** Store Data | **Child:** Default
- **Member Valid For Plan 1:** Y | **Member Valid For Plan 2:** Y | **Member Valid For Plan 3:** N
- **Member Valid For Workforce:** Bottom Up | **Member Valid For Capex:** Bottom Up | **DataType:** Target | **Smart List:** | **UDA:** | **Description:** Alias
In This Appendix

Dimension and Member Properties ................................................................. 551

**Dimension and Member Properties**

The properties for Profitability and Cost Management dimensions and members are displayed in alphabetical order in Table 58, which displays the following information:

- The Property Label, which provides a more readable display name for the property. If applicable, the associated cube type is appended to the name (ASO or BSO). If no cube type is specified, the property applies to both types.
- A Description of each property
- The Property Name, which provides a unique identifier for the property that is used when updating data in the import and batch client.

You can modify any property that presents a drop-down list or data entry text box when you select the property in the Dimension Library.

**Table 58  Profitability and Cost Management Dimension and Member Properties**

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Enter the alias for the selected dimension or member. The alias is the dimension name that displays in a deployed application.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● To assign or change the default alias name for the current dimension or member, click the existing alias name and enter the new one. Follow the proper naming rules. All databases have an alias table named Default.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● To assign or change an alias name for the current dimension or member, click the existing alias name next to the alias table and enter the new name. Follow the proper naming rules.</td>
<td></td>
</tr>
<tr>
<td>Attributes</td>
<td>Enter the characteristics of a dimension member.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For example, Employee dimension members may have attributes of Name, Age, or Address. Product dimension members may have several attributes, such as a size and flavor.</td>
<td></td>
</tr>
</tbody>
</table>

| Alias          | Attributes |

Dimension and Member Properties  551
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Type</td>
<td>Enter the type of attribute for the selected dimension or member:</td>
<td>AttributeDataType</td>
</tr>
<tr>
<td></td>
<td>• Text</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Boolean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Date</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Numeric</td>
<td></td>
</tr>
<tr>
<td>Comment</td>
<td>Enter a comment for the dimension or member. Comments can contain up to 255</td>
<td>Comment</td>
</tr>
<tr>
<td></td>
<td>characters. By default, this text box displays the current comment, if one</td>
<td></td>
</tr>
<tr>
<td></td>
<td>exists. You cannot assign a comment to an attribute dimension or member.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> For Unicode-enabled databases, a maximum of 80 characters is allowed.</td>
<td></td>
</tr>
<tr>
<td>Consolidation</td>
<td>Select the type of consolidation for the selected dimension member:</td>
<td>Consolidation</td>
</tr>
<tr>
<td></td>
<td>• + (addition) - Default</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• - (subtraction)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• * (multiplication)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• / (division)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• % (percent)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ~ (ignore during consolidation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ^ (never consolidate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NotUsed</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> There are some restrictions with use of consolidation operators in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>aggregate storage outlines. Refer to the Oracle Essbase Database Administrator's</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guide for additional information.</td>
<td></td>
</tr>
<tr>
<td>Data Storage(ASO)</td>
<td>Select the ASO storage options for dimensions and members:</td>
<td>ASODimensionDataStorage</td>
</tr>
<tr>
<td></td>
<td>• StoreData – Data is stored with the dimension.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ShareData – Data associated with this member can be shared. The ShareData</td>
<td></td>
</tr>
<tr>
<td></td>
<td>property applies to the member Only. The Dimension Root Member cannot be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shared.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NeverShare – Data associated with this dimension cannot be shared, even if</td>
<td></td>
</tr>
<tr>
<td></td>
<td>there is an implied share relationship, such as with a parent with one child.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In this case, the data is duplicated in the parent and child.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This option does not apply to stored hierarchies in aggregate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>storage outlines.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• LabelOnly – No data is associated with this dimension.</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Data Storage(BSO)</td>
<td>Select the BSO storage options for dimensions and members:</td>
<td>DataStorage</td>
</tr>
<tr>
<td></td>
<td>- StoreData – Data is stored with the dimension.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- ShareData – Data associated with this member can be shared. The ShareData property applies to the member Only. The Dimension Root Member cannot be shared.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- NeverShare – Data associated with this dimension cannot be shared, even if there is an implied share relationship, such as with a parent with one child. In this case, the data is duplicated in the parent and child.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- LabelOnly – No data is associated with this dimension.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DynamicCalcAndStore – Data associated with this dimension is not calculated until requested by a user. Once calculated, the data is stored.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DynamicCalc – Data associated with this dimension is not calculated until requested by a user. The data is not stored but is discarded after the request is completed.</td>
<td></td>
</tr>
<tr>
<td>Dimension Formula(ASO)</td>
<td>Double-click the cell and click the Selector button to open the Memo Editor. Enter the formula, then click OK.</td>
<td>ASODimensionFormula</td>
</tr>
<tr>
<td></td>
<td>Use the appropriate ASO MDX syntax.</td>
<td></td>
</tr>
<tr>
<td>Dimension Formula(BSO)</td>
<td>Double-click the cell and click the Selector button to open the Memo Editor. Enter the formula, then click OK.</td>
<td>BSODimensionFormula</td>
</tr>
<tr>
<td></td>
<td>Use the appropriate BSO CALCULATOR syntax.</td>
<td></td>
</tr>
<tr>
<td>Dimension Solve Order</td>
<td>Enter the numeric value in the solution sequence for selected dimensions. For example, if this dimension is to be solved second, enter “2.”</td>
<td>DimensionSolveOrder</td>
</tr>
<tr>
<td>Dimension Sort Order</td>
<td>Enter the numeric value in the sequence to set the order of dimensions in the Essbase outline that is generated by Profitability and Cost Management. For example, if this dimension is to be the second in the Essbase outline, enter “2.”</td>
<td>DimensionSortOrder</td>
</tr>
<tr>
<td></td>
<td>For example, if you have four attribute dimensions in a sequence of 12 dimensions, the attribute dimensions must be set as 9, 10, 11, and 12.</td>
<td></td>
</tr>
<tr>
<td>Dimension Storage Type</td>
<td>Select the type of storage required for the dimension:</td>
<td>DimensionStorageType</td>
</tr>
<tr>
<td></td>
<td>- Dense</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sparse</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
| Hierarchy Type (Dimensions Only) | Set the type of hierarchy for the dimension:  
  - Enabled  
  - Disabled  
  - Stored  
  - Dynamic | DimensionHierarchyType |
| Hierarchy Type (Members Only) | Set the type of hierarchy for the member:  
  - Stored (For first Gen2 child)  
  - Dynamic (For Second Gen2 child onwards. The Second Gen2 member can host the alternate hierarchies)  
  - None (Do Not Use)  
  **Note:** The last Gen2 child must always be 'NoMember'. | HierarchyType |
<p>| Member Formula (ASO) | Double-click the cell and click the Selector button to open the Memo Editor. Enter the formula, then click OK. Use the appropriate ASO MDX syntax. | ASOMemberFormula |
| Member Formula (BSO) | Double-click the cell and click the Selector button to open the Memo Editor. Enter the formula, then click OK. Use the appropriate BSO (BSO CALCULATOR syntax. | BSOMemberFormula |
| Member Solve Order (Dimensions Only) | Enter the numeric value in the solution sequence for selected member. For example, if this member is to be solved second, enter “2.” This property applies to ASO databases only. | MemberSolveOrder |
| Member Solve Order (Members Only) | Enter the numeric value in the solution sequence for selected member. For example, if this member is to be solved second, enter “2.” This property applies to ASO databases only. | MemberSolveOrder |
| POV Dimension | Click the checkbox to set this dimension as a POV dimension for the selected model. | IsPOVDimension |
| POV Display Order | If there are multiple POV dimensions, enter the numeric value (such as 1, 2, 3, and so on) to set the display order for each POV dimension. | POVDisplayOrder |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Primary Level Weighting        | Primary level weighting restricts the levels which can be selected by the view selection engine during aggregation operations. These settings only apply to Essbase (ASO) applications. Select one of the following options:  
  - Default – The view selection engine is free to decide which levels to pick. This is the initial value for new hierarchies.  
  - AllLevels - The view selection engine considers all levels of the hierarchy for aggregation.  
  - NoAggregation – The view selection engine cannot select any levels for aggregation.  
  - TopLevelOnly – The view selection engine considers only the highest level of the dimension for aggregation.  
  - BottomaTop - The view selection engine considers only the highest level and the lowest level of the dimension for aggregation.  
  - BottomLevelOnly – The view selection engine considers only the bottom level of the dimension for aggregation. | PrimaryLevelWeighting       |
| Two Pass Calc(BSO) (Dimensions Only) | Select the checkbox to enable two pass calculations on dimensions.                                                                                                                                                                                                                       | TwoPassCalc(BSO)            |
| Two Pass Calc(BSO) (Members Only) | Select the checkbox to enable two pass calculations on members.                                                                                                                                                                                                                           | TwoPassCalc(BSO)            |
| UDA                            | Enter the UDA name for the selected member. A UDA dimension must exist in Performance Management Architect, and be associated to the base to which the UDA is being added. See "Viewing Dimension Associations". You can enter up to 256 alphanumeric characters. Multiple UDAs must be comma separated. For example: Small Market,New Market.  
  **Note:** For Unicode-enabled databases, a maximum of 80 characters is allowed. | UDA                         |
In This Appendix

Application Properties .......................................................... 557
Dimension and Member Properties ........................................... 561

Application Properties

Performance Management Architect supports deployment to Essbase by creating Essbase (ASO) and Essbase (BSO) applications.

Following are the properties for Essbase (ASO) and Essbase (BSO) applications in alphabetical order. The Property Label column shows the label displayed for the property in the Performance Management Architect Property Grid. You can use the name, displayed in the Property Name column, to modify property values in a lights-out fashion using the Performance Management Architect Batch Client. See the Oracle Hyperion Enterprise Performance Management Batch Client User’s Guide for additional information on running scripts.

Note: Unless otherwise noted, the properties apply to both Essbase (ASO) and Essbase (BSO) applications.

Table 59  Essbase (ASO) and Essbase (BSO) Application Properties

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow Duplicates in Outline</td>
<td>Select to allow duplicate member names in an outline. By default, Essbase outlines require that member names are unique. If you want to allow duplicate member names in an existing unique outline, you can select this option to convert the application to allow duplicate members. Once an application is converted, it cannot be changed back to unique. By default, all dimensions in a duplicate member name application allow duplicate member names. You can clear the “Allow Duplicates in Dimension” option for one or more dimensions in a duplicate member name outline to require unique member names in the dimension. Default Value: False</td>
<td>AllowDuplicatesInOutline</td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Attribute Calculations Avg Name</td>
<td>To avoid duplicating names in an outline, you may need to change the name of the Attribute Calculations dimension or its members. If desired, specify a new name for the Attribute Calculations dimension or a new name for any of the members. The names specified are used in reports and spreadsheets. The function of the member is not affected by the member name. For example, the second member of the dimension counts, regardless of what the name is. Optional: Specify a new name for the Attribute Calculations Avg member. Note: This option only applies to Essbase (BSO) applications. Default Value: Avg</td>
<td>AttributeCalculationsAvgName</td>
</tr>
<tr>
<td>Attribute Calculations Boolean False Name</td>
<td>Optional: Enter the name for all False members of Boolean attribute dimensions; for example, all members with a False value might be named No. Default Value: False</td>
<td>AttributeCalculationsBooleanFalseName</td>
</tr>
<tr>
<td>Attribute Calculations Boolean True Name</td>
<td>Optional: Enter the name for all True members of Boolean attribute dimensions; for example, all members with a True value might be named Yes. Default Value: True</td>
<td>AttributeCalculationsBooleanTrueName</td>
</tr>
<tr>
<td>Attribute Calculations Count Name</td>
<td>Optional: Specify a new name for the Attribute Calculations Count member. Note: This option only applies to Essbase (BSO) applications. Default Value: Count</td>
<td>AttributeCalculationsCountName</td>
</tr>
<tr>
<td>Attribute Calculations Date Name</td>
<td>Select the format for names of members of date attribute dimensions: ● Month First (mm-dd-yyyy) ● Day First (dd-mm-yyyy) Default Value: MonthFirst</td>
<td>AttributeCalculationsDateName</td>
</tr>
<tr>
<td>Attribute Calculations Dimension Name</td>
<td>Optional: Specify a new name for the Attribute Calculations dimension. Default Value: Attribute Calculations</td>
<td>AttributeCalculationsDimensionName</td>
</tr>
<tr>
<td>Attribute Calculations Max Name</td>
<td>Optional: Specify a new name for the Attribute Calculations Max member. Note: This option only applies to Essbase (BSO) applications. Default Value: Max</td>
<td>AttributeCalculationsMaxName</td>
</tr>
<tr>
<td>Attribute Calculations Min Name</td>
<td>Optional: Specify a new name for the Attribute Calculations Min member. Note: This option only applies to Essbase (BSO) applications. Default Value: Min</td>
<td>AttributeCalculationsMinName</td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
</tbody>
</table>
| Attribute Calculations Range Name    | Specify whether the attribute value is the top or bottom value of a numeric range. For example, if Tops of Ranges is selected, with attributes named 1000, 100000, and 1000000, the ranges are 0-1000, 1001-100000, and 100001-1000000. Select one of the following options:  
  ● Bottoms of ranges  
  ● Tops of ranges  
  Default Value: Tops of Ranges                                                      | AttributeCalculationsRangeName                     |
| Attribute Calculations Sum Name      | Optional: Specify a new name for the Attribute Calculations dimension.  
  Default Value: Sum                                                                   | AttributeCalculationsSumName                       |
| Auto Configure                      | Indicates whether or not Essbase automatically determines whether dimensions have a dense or sparse data configuration.  
  ● True: Essbase automatically sets each dimension as dense or sparse. You cannot manually change the dimension storage type.  
  ● False: The dense or sparse data configuration can be manually changed.  
  Note: This setting only applies to Essbase (BSO) applications.  
  Default Value: False                                                              | AutoConfigure                                      |
|                                       | Note: In some cases, if you make changes to the “Auto Configure” property in Performance Management Architect it does not overwrite in Essbase. If you set the “Dimension Storage Type” property in Essbase applications, you must set the “Auto configure” property value to False before you deploy or redeploy the application to Essbase.                                                      |                                                   |
| Case Sensitive                      | Indicates whether or not members are treated as case sensitive.  
  ● If the check box is selected:  
    Member names are case-sensitive; for example, Product is different from product. Members whose names differ only by case are treated as separate members in all member comparison and search operations. This is the default.  
  ● If the check box is cleared:  
    Member names are case-insensitive.  
  Default Value: True                                                               | CaseSensitive                                      |
| Comment                              | Optional: Type a descriptive comment for this application.                                                                                          | Comment                                            |
| Conversion Method                   | Select the conversion method to be used during the conversion calculation:  
  ● Multiply: Multiplies local data values in the main database by exchange rates in the currency database.  
  ● Divide (the default): Divides local data values in the main database by exchange rates in the currency database.  
  Note: This setting only applies to Essbase (BSO) applications.                   | ConversionMethod                                   |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency Database</td>
<td>Select a currency database to link to for currency conversion calculations. If no currency database is linked to the current database, the currency database is None. <strong>Note:</strong> This setting only applies to Essbase (BSO) applications.</td>
<td>CurrencyDatabase</td>
</tr>
<tr>
<td>Database Name</td>
<td>Type the name of the multidimensional database to be created when this application is deployed.</td>
<td>DatabaseName</td>
</tr>
</tbody>
</table>
| Prefix/Suffix Format | Select the source of the value that Essbase attaches to the names of members of Boolean, date, and numeric attribute dimensions:   * None: Uses the complete member name with no prefix or suffix attached; for example, 6000000.  
  * Dimension: Attaches the name of the attribute dimension as prefix or suffix to the complete member name; for example, Population_6000000.  
  * Parent: Attaches the name of the immediate parent as prefix or suffix to the complete member name; for example, Small_6000000.  
  * Grandparent: Attaches the name of the grandparent as prefix or suffix to the complete member name; for example, Population_Grandparent_6000000.  
  * Ancestors: Attaches the name of all higher-level generations as the prefix or suffix to the complete member name; for example, Population_Grandparent_Anscestors_6000000.  
  **Default Value:** None | PrefixSuffixFormat    |
| Prefix/Suffix        | Separator: Select one of the following separators to insert between the prefix or suffix and the attribute member name:  * _ Underscore: For example, Population_Small_6000000.  
  * | Pipe: For example, Population|Small|6000000.  
  * ^ Caret: For example, Population^Small^6000000.  
  **Default Value:** _ (underscore) | PrefixSuffixSeparator |
| Prefix/Suffix        | Value: Select prefix or suffix.  * Prefix: Attaches the specified prefix before the names of members of Boolean, date, and numeric attribute dimensions; for example, Population_Prefix_6000000. Prefix is the default value.  
  * Suffix: Attaches the specified suffix after the names of members of Boolean, date, and numeric attribute dimensions; for example, 6000000_Suffix_Population.  
  **Default Value:** Prefix | PrefixSuffixValue     |
| Unicode              | Select this check box to migrate an application to Unicode mode. **Caution!** Setting an application to Unicode mode cannot be undone. See the Oracle Essbase Database Administrator’s Guide for information on migrating applications to Unicode Mode. | Unicode               |
# Dimension and Member Properties

Following are the properties for Essbase (ASO) and Essbase (BSO) dimensions and members in alphabetical order.

**Note:** Unless otherwise noted, the properties apply to dimensions and members in both Essbase (ASO) and Essbase (BSO) applications.

## Table 60  Essbase (ASO) and Essbase (BSO) Dimension and Member Properties

<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alias</td>
<td>Enter the alias in the text box. Displays all alias tables defined for the database and all aliases defined for the current member.</td>
<td>Alias</td>
</tr>
<tr>
<td>Allow Duplicates In Dimension</td>
<td>In an outline that allows duplicate member names, select one of the following options to specify member name uniqueness at a granular level:</td>
<td>AllowDuplicatesInDimension</td>
</tr>
<tr>
<td>Comment</td>
<td>Enter a comment for the dimension or member. Comments can contain up to 255 characters. By default, this text box displays the current comment, if one exists. You cannot assign a comment to an attribute dimension or member.</td>
<td>Comment</td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
| Consolidation | Member consolidation properties determine how children roll up into their parents. If the current member is not a dimension or an attribute, select the consolidation operator to assign to the member:  
  - + (addition)  
  - - (subtraction)  
  - * (multiplication)  
  - / (division)  
  - % (percent)  
  - ~ (ignore during consolidation)  
  - ^ (never consolidate)  
  - NotUsed  
  Default Value: + (addition)  
  See also “Calculating Attribute Data” in the Essbase Administration Services Online Help.  
  Note: There are some restrictions with use of consolidation operators in aggregate storage outlines. | Consolidation |
| Currency      | Shown if the selected item is a dimension, and if the dimension is tagged as country. Enter the currency name, for example USD (for US dollars). When preparing a main database outline for currency conversion, you need to assign currency names to the country dimension and its members (for example, assigning dollars to the U.S., Euro to Germany, and so forth).  
  Note: This setting only applies to Essbase (BSO) applications. | Currency |
| Currency Conversion | If the current member is a member of the accounts dimension and within a currency application, complete the following options.  
  Note: This setting only applies to Essbase (BSO) applications.  
  Currency conversion drop-down list box. Select one of the following currency conversion options to define categories of currency exchange rates.  
  - None: The member has no relationship to currency conversion. This is the default setting.  
  - No Conversion: The member is not converted because it is not a currency value. It can be a value such as a quantity or percentage.  
  - Category: The member requires currency conversion to the Category you specify.  
  See “Preparing the Main Database Outline for Currency Conversion” in the Essbase Administration Services Online Help. | CurrencyConversion |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency Category</td>
<td>If the current member is a member of the accounts dimension and the member requires currency conversion, enter the type of currency conversion required. Currency category types are the names of members of the accounts dimension of the currency database. See also “Assigning Currency Categories to Accounts Members” in the Essbase Administration Services Online Help. Note: This setting only applies to Essbase (BSO) applications.</td>
<td>CurrencyCategory</td>
</tr>
</tbody>
</table>
| Data Storage | Select one of the following storage options:  
- StoreData: Select to specify that the data is stored with the dimension.  
- DynamicCalcAndStore: Select to specify that the data associated with this dimension is not calculated until requested by a user. Once calculated, the data is stored. This option does not apply to aggregate storage outlines.  
- DynamicCalc: Select to specify that the data associated with this dimension is not calculated until requested by a user. The data is not stored but is discarded after the request is completed. This option does not apply to aggregate storage outlines.  
- NeverShare: Select to specify that the data associated with this dimension cannot shared, even if there is an implied share relationship, such as with a parent with one child. In this case, the data is duplicated in the parent and child. This option does not apply to stored hierarchies in aggregate storage outlines.  
- LabelOnly: Select to specify that no data be associated with this dimension. This option has restrictions for aggregate storage outlines.  
- Share Data: For shared members. The member shares storage space with another member of the same name. In outlines enabled for duplicate member names, if the outline contains multiple members that have the same name as the member you are tagging as shared, the Duplicate Shared Member dialog box is displayed. This dialog box displays all member names in the outline that match the shared member name. Select the duplicate member that you want to be the basis for the shared member. For more information about using shared members with aggregate storage databases, see “Alternate Hierarchies” in the Oracle Essbase Database Administrator’s Guide. Default Value: NeverShare Note: You cannot use Performance Management Architect to create Hybrid Analysis or Advanced Relational Access cubes. | DataStorage |
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
</table>
| Dimension Solve Order | Select one of the following solve order options:  
  - Existing value or 0: Select to use the solve order setting that is specified in the outline. If there is no existing setting, Essbase sets the solve order value to 0.  
  - New value: Select to specify a number to represent the priority with which Essbase calculates the formulas. The formula on the member that has the highest solve order takes precedence. You can specify a solve order between 0 and 127. Values less than 0 or greater than 127 are reset to 0 and 127 respectively. No warning message is displayed. The default value is 0.  

You can also specify solve order at the member level. Members that do not have a solve order inherit the solve order of their dimension.  

For complete information about solve order, see “Calculation Order” in the Essbase Administration Services Online Help.  

**Note:** These settings only apply to Essbase (ASO) applications. | DimensionSolveOrder |
| Fully Qualified Shared Member | In outlines enabled for duplicate member names, displays the qualified name for members with duplicate (non-unique) names. A qualified member name is constructed by prefixing ancestor names to the member name, up to the ancestor that makes the name unique.  

For example, if the outline has two members named New York, one under State and one under City, the qualified member names include the first ancestor name that differentiates the members from each other:  

[State].[New York]  
[City].[New York] | FullyQualifiedSharedMember |
| Hierarchy Type | Select one of the following hierarchy options:  
  - Enabled: Multiple hierarchies are enabled. Select to use both stored and dynamic hierarchies in the dimension.  
  - Disabled: Multiple hierarchies are disabled.  
  - Stored: Select to set the dimension as a stored hierarchy. This is the default.  
  - Dynamic: Select to set the dimension as a dynamic hierarchy.  

The dimension tagged as accounts is automatically considered a dynamic hierarchy. You cannot specify the accounts dimension as a stored hierarchy.  

For important information about restrictions with using dynamic and stored hierarchies, see “Hierarchies” in the Essbase Administration Services Online Help.  

**Note:** These settings only apply to Essbase (ASO) applications. | HierarchyType |
<p>| Member Formula | Displays any formulas associated with the member. | MemberFormula |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Solve Order</td>
<td>Specify a number to represent the priority with which Essbase calculates the formulas. The formula on the member that has the highest solve order takes precedence. You can specify a solve order between 0 and 127. Values less than 0 or greater than 127 are reset to 0 and 127 respectively. No warning message is displayed.</td>
<td>MemberSolveOrder</td>
</tr>
<tr>
<td></td>
<td><em>Default Value:</em> 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Members that have a solve order of 0 inherit the solve order of their dimension. Members with the same solve order are evaluated in the order in which their dimensions appear in the database outline. Members with no solve order are evaluated after members with a solve order.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For complete information about solve order, see “Calculation Order” in the Essbase Administration Services Online Help.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Note:</em> This setting only applies to Essbase (ASO) applications.</td>
<td></td>
</tr>
<tr>
<td>Primary Level Weighting</td>
<td>Primary level weighting restricts the levels which can be selected by the view selection engine during aggregation operations.</td>
<td>PrimaryLevelWeighting</td>
</tr>
<tr>
<td></td>
<td><em>Note:</em> These settings only apply to Essbase (ASO) applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following options:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Default: The view selection engine is free to decide which levels to pick. This is the initial value for new hierarchies.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● ConsiderAllLevels: The view selection engine considers all levels of the hierarchy for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● DoNotAggregate: The view selection engine cannot select any levels for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● ConsiderTopLevelOnly: The view selection engine considers only the highest level of the dimension for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● NeverAggregateToIntermediateLevels: The view selection engine considers only the highest level and the lowest level of the dimension for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Default Value:</em> Default</td>
<td></td>
</tr>
<tr>
<td>Secondary Level Weighting</td>
<td>Restricts the levels for attributes which can be selected by the view selection engine during aggregation operation.</td>
<td>SecondaryLevelWeighting</td>
</tr>
<tr>
<td></td>
<td>Select one of the following options:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Default: The view selection engine is free to decide which levels to pick. This is the initial value for new hierarchies.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● ConsiderAllLevels: The view selection engine considers all levels of the hierarchy for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● DoNotAggregate: The view selection engine cannot select any levels for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● ConsiderTopLevelOnly: The view selection engine considers only the highest level of the dimension for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● NeverAggregateToIntermediateLevels: The view selection engine considers only the highest level and the lowest level of the dimension for aggregation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Default Value:</em> Default</td>
<td></td>
</tr>
<tr>
<td>Property Label</td>
<td>Description</td>
<td>Property Name</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
| Skip Value     | Select one of the following options to determine what Essbase skips, or ignores, during a time balance calculation. You can only specify skip settings if you set the time balance properties as first, last, or average.  
- None: Select to include zeros and missing values when calculating parent values.  
- Missing: Select to exclude #MISSING values when calculating parent values.  
- Zeros: Select to exclude zeros when calculating parent values.  
- Missing and zeros: Select to exclude #MISSING values and zeros when calculating parent values.  
  Note: If Essbase encounters #MISSING values when calculating, the #MISSING values are not divided by the total number of members. Instead, the #MISSING values are divided by the number of members with actual values.  
  Default Value: None | SkipValue |
| Time Balance   | Select one of the following options to set time balance properties.  
- Existing definition or none: Select to use the setting specified in the outline. If there is no existing setting, Administration Services sets the time balance property to none. This is the default.  
- None: Select to use no time balance properties. Member values are calculated in the default manner.  
- First: Select as the time balance property when the parent value represents the value at the beginning of a time period.  
- Average: Select as the time balance property, when the parent value represents the average value of a time period.  
- Skip node: Select one of the following options to determine what Essbase skips, or ignores, during a time balance calculation. You can only specify skip settings if you set the time balance properties as first, last, or average.  
  - None: Select to include zeros and missing values when calculating parent values.  
  - Missing: Select to exclude #MISSING values when calculating parent values.  
  - Zeros: Select to exclude zeros when calculating parent values.  
  - Missing and zeros: Select to exclude #MISSING values and zeros when calculating parent values.  
  Note: When you define the value for this property at the parent level, all children automatically inherit the value.  
  Default Value: Flow | TimeBalance |
| Two Pass Calc  | Select this check box to calculate a dimension on the second pass through the outline.  
  Note: This setting only applies to Essbase (BSO) applications. | TwoPassCalc |
<p>| UDA            | Enter the UDA name for the selected member. Multiple UDAs must be comma separated; for example: Small Market, New Market. | UDA |</p>
<table>
<thead>
<tr>
<th>Property Label</th>
<th>Description</th>
<th>Property Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance Reporting</td>
<td>Select one of the following options to determine how to calculate the difference between actual and budget data.</td>
<td>VarianceReporting</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When you define the value for this property at the parent level, all children automatically inherit the value.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Existing definition or non-expense: Select to use the setting specified in the outline to calculate the difference between actual and budget data. If there is no existing setting, Essbase stores the dimension as non-expense. This is the default.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Non-expense: Select to set the member as non-expense. When you budget non-expense items, such as sales, you want the actual sales to be greater than the budget. When the actual sales is lower than the budget, the variance is negative.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Expense: Select to set the member as an expense. When you budget expenses for a period, you want the actual expenses to be lower than the budget. When actual expenses are greater than the budget, the variance is negative.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> These options only apply to Essbase (BSO) applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Default Value: NonExpense</em></td>
<td></td>
</tr>
</tbody>
</table>
Working with Statistical and System Properties

There are statistical and system properties that apply to dimension members regardless of the category selected. The following tables describe these properties.

**Note:** For statistical properties, properties are defined for members only.

<table>
<thead>
<tr>
<th>Statistical Property</th>
<th>Information Provided about a Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hidden Member</td>
<td>Indicates whether the member is hidden.</td>
</tr>
<tr>
<td></td>
<td>Default value: False</td>
</tr>
<tr>
<td>Reference Count</td>
<td>Number of parents</td>
</tr>
<tr>
<td>Sibling Count</td>
<td>Number of siblings</td>
</tr>
<tr>
<td>Child Count</td>
<td>Number of children</td>
</tr>
<tr>
<td>Descendant Count</td>
<td>Number of descendants</td>
</tr>
</tbody>
</table>

System properties are defined for members and dimensions.

System properties for members:

- Name
- Description
- Parent
- Sort Order
- Parent Description
- Display String (not for use at this time)
- Member Class (not for use at this time)
System properties for dimensions:

- Dimension Name
- Dimension Description
- Display Properties—(not for use at this time)
- Default Member—The default top member
- Dimension Type—The type of dimension
- Dimension Alias—The dimension name that displays in a deployed application.
- Dimension Owner—Users and group who can modify and delete the dimension. For information on setting dimension access permissions see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.
- Dimension Readers—Users and group who can view the dimension. For information on setting dimension access permissions see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.
- Dimension Writers—Users and group who can modify the dimension. For information on setting dimension access permissions see the Oracle Hyperion Enterprise Performance Management System Security Administration Guide.

**Note:** The system property, IsPrimary, does not display in the Property Grid, but is used in the import source. This property is a boolean property that indicates whether the parent/child relationship in the Hierarchies section refers to the primary member. When this property is not used, the system makes the first parent/child relationship created for a member the location of the primary member in the dimension hierarchy. When this property is used, a value of True defines that the primary member relationship, which allows a primary member to be located as the second or later occurrence of that member in the dimension. This property is handled like the Name, Parent, or Child system properties via the import. When importing metadata, the Hierarchies section header row in the import source must refer to the name of the property (IsPrimary) for the system to recognize it during import. For additional information, see “Hierarchies Section” on page 51.
The following tables describe the validations performed by Performance Management Architect for each application type.

### Table 61  Consolidation Validations

<table>
<thead>
<tr>
<th>Validation Level</th>
<th>Validations</th>
</tr>
</thead>
</table>
| **Dimension**    | ● Verify that there are not UDA dimensions in the application, since they are not supported in Consolidation applications.  
● Determine if there are any dimensions that use an invalid dimension class in the application  
● Verify that period dimensions are local  
● Verify that the dimension instance has more than the maximum allowed levels of dimensional depth  
● Verify that the dimension supports shared members  
● Verify that the dimension supports non-unique members  
● Verify that the dimension has required associations  
● Validate the custom dimension id  
● Check for static dimensions |
| **Application**   | ● There must be at least one dimension in this application  
● Validates the allowed number of dimension instances of a dimension class that have been added to the application  
● Enforce rules on application name  
● Checks for invalid characters  
● Verifies that there is a valid value for the currency property  
● Verifies that there is a valid value for the application property |
| **Member**        | ● Verifies that there is a valid account type for member  
● Verifies that there is a valid default member property |
### Table 62  Planning Validations

<table>
<thead>
<tr>
<th>Validation Level</th>
<th>Validations</th>
</tr>
</thead>
</table>
| Dimension        | ● Attribute dimensions can only be associated with sparse dimensions.  
                   ● Allowed values for Boolean members are either True or False  
                   ● Level-0 date members should conform to the date format property set in application settings  
                   ● Level-0 numeric members should be a valid number  
                   ● View dimension types are not supported in Planning applications  
                   ● Empty Attribute dimensions of type Boolean, Date, or Numeric cannot be associated with a base dimension  
                   ● A base dimension can be associated with only one Boolean Attribute dimension  
                   ● Verify that the Year, Currency, and Alias dimension have limited dimension depth  
                   ● Verify that the Year, Currency, and Alias dimensions do not have shared members  
                   ● Dimensions do not support non-unique members within the dimension  
                   ● Verify that each Alias dimension has a Default alias member  
                   ● Dimension plan types selected must be the same as or a subset of the plan types selected for the application  
                   ● Verify that the Alias dimension does not have disallowed name  
                   ● Check duplication of Alias in Alias table  
                   ● Check all members of the Version dimension to ensure that the Enable Process Management property is not set to True if the Version Type property is set to Target  
                   ● Member names and aliases must be unique  
| Period and Year Validations: |  
                   ● Year members must be sequential  
                   ● The first year member must be the Start Year for the current application  
                   ● Each level under the Year Total member in the Period tree must have the same number of children  
                   ● The number of leaf members under the Year Total member is incorrect for the base time period of this application  
                   ● The maximum number of periods is 500  
                   ● The maximum number of Year members has been exceeded  
                   ● Verify that there are no more than 100 years in Year dimensions  
                   ● Get first year in Year dimensions  
                   ● For deployed applications, cannot add year to the beginning of a range  
                   ● Verify that the PerfOrder property (for example, RatesPlan1PerfOrder) has a unique value for plan types  
| Application        | ● No dimension associations exist within the application  
                   ● Check minimum required dimensions in the application as described in “Creating Planning Applications” on page 153  
                   ● Verify that the Scenario, Year, Period, Entity, Account, and Alias dimensions do not have more instances than specified in the application  
                   ● Check all required dimensions are present based on selected plan types at the application level  
                   ● Verify that the Account Type property contains only valid values for Planning  
                   ● Enforce rules on the application name  
                   ● Verify that the PerfOrder property (for example, RatesPlan1PerfOrder) has a unique value for plan types |
### Validation Level

<table>
<thead>
<tr>
<th>Member</th>
<th>Validations</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Source Plan Type value is not valid for the member</td>
<td></td>
</tr>
<tr>
<td>- Expense Reporting value for this member is not valid</td>
<td></td>
</tr>
<tr>
<td>- Time Balance can only be set to Last in Essbase applications</td>
<td></td>
</tr>
<tr>
<td>- Plan types for a member must be the same as or a subset of its parent. For top level members, the parent plan types are the dimension plan types</td>
<td></td>
</tr>
<tr>
<td>- Check for valid DTS based on Period Type selected</td>
<td></td>
</tr>
<tr>
<td>- Check all members of all dimensions of a particular dimension class have a non-null value for a particular property, and that the property value is one the allowed values</td>
<td></td>
</tr>
<tr>
<td>- Check Exchange Rate type property value based on Data Type Property</td>
<td></td>
</tr>
<tr>
<td>- Check Two Pass Calculation property based on DataStorage Property</td>
<td></td>
</tr>
<tr>
<td>- If more than one member uses an Attribute property, those members are required to be at the same level in their respective hierarchies</td>
<td></td>
</tr>
</tbody>
</table>

**Member name validations:**
- Smart List member names cannot have special characters or blank spaces
- Year member names must be of the format FY08
- No leading or trailing white space is allowed in member names
- Must be between 1 and 80 characters
- Cannot contain special characters or reserved words
- Cannot start with special characters
- Cannot be reserved words
- Cannot match dimension names
- If Attribute Type is Boolean, the allowed values for member names are either True or False.

### Table 63 Profitability Validations

<table>
<thead>
<tr>
<th>Validation Level</th>
<th>Validations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>- Business dimensions must have the ASO and BSO data storage set to LabelOnly.</td>
</tr>
<tr>
<td></td>
<td>- Dimension Sort Order has been set for the model, and satisfies the following conditions:</td>
</tr>
<tr>
<td></td>
<td>- A dimension sort order must be set for every dimension in the model, except Alias and UDA dimensions.</td>
</tr>
<tr>
<td></td>
<td>- <strong>Note:</strong> The Alias and UDA dimensions are ignored for Dimension Sort Order.</td>
</tr>
<tr>
<td></td>
<td>- The dimension sort order must be sequential.</td>
</tr>
<tr>
<td></td>
<td>- Measures dimension is set to 1, by default.</td>
</tr>
<tr>
<td></td>
<td>- AllocationType dimension is set to 2, by default.</td>
</tr>
<tr>
<td></td>
<td>- POV and business dimensions are set to 3 or higher.</td>
</tr>
<tr>
<td></td>
<td>- Attribute dimensions are sorted as the last dimensions.</td>
</tr>
<tr>
<td></td>
<td>For example, if you have four attribute dimensions in a sequence of 12 dimensions, the attribute dimensions must be set as 9, 10, 11, and 12.</td>
</tr>
<tr>
<td>Validation Level</td>
<td>Validations</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| **Application**  | - The name of the application is 7 characters or less, and contains no special characters.  
- At least one dimension has been set to POV type.  
- The number of Dimensions with POV flag must be between 1 and 4  
- Must have at least one business dimension defined  
- Must have one Measures dimension  
- Must have one AllocationType dimension  
- Only one dimension of type “Account” is allowed  
- Only one dimension of type “Entity” is allowed |
| **Member**       | - Allow only ASO and BSO data storage to be defined  
- NoMember must be set as the last generation 2 member for all business dimensions.  
  **Note:** This requirement does not apply to POV, Measures, AllocationType, Alias, UDA or Attribute dimensions.  
- Ensure that duplicate members are not present under the same parent. |

**Table 64 Essbase (BSO) Validations**

<table>
<thead>
<tr>
<th>Validation Level</th>
<th>Validations</th>
</tr>
</thead>
</table>
| **Application**  | - Must be at least one dimension in this application  
- Validates the allowed number of dimension instances of a dimension class that have been added to the application  
- Verifies that the dimension is not set to allow duplicates and non-unique members  
- Must set Skip property when Time Balance is set for Account dimension |

**Note:** For Essbase (ASO) and Essbase (BSO), the majority of validations are performed at deployment.

**Table 65 Essbase (ASO) Validations**

<table>
<thead>
<tr>
<th>Validation Level</th>
<th>Validations</th>
</tr>
</thead>
</table>
| **Application**  | - Must be at least one dimension in this application  
- Validates the allowed number of dimension instances of a dimension class that have been added to the application  
- Hierarchies with more than 10 levels of depth receive a performance warning  
- Check multiple rules of hierarchy |
| **Member**       | - The only consolidation operator supported is +  
- Formulas are valid only in dynamic hierarchies  
- Shared members in stored hierarchies are only valid in multiple hierarchy dimensions  
- Label only members in stored hierarchies must have label-only siblings |
Member Query Functions Used by the Data Synchronizer

In This Appendix

Using Member Query Functions ................................................................. 575

Using Member Query Functions

Subtopics

- Special Considerations
- Syntax
- Examples
- Parent
- Children
- Ancestors
- Descendants
- Siblings
- Member
- Match
- AllMembers
- BottomOfHierarchy
- TopOfHierarchy
- Level0

The Performance Management Architect Data Synchronizer supports these member query functions:

- Parent() — Returns the member one level above the member-name in the same branch. See “Parent” on page 578.
- Children() — Returns the members one level below the specified parent.
- Ancestors() — Returns the members at all levels above the specified member in the same branch. See “Ancestors” on page 579.
- Descendants() — Returns the members all levels below the specified parent.
- Siblings() — Returns the members with the same parent on the same level as the member-name parameter. See “Siblings” on page 580.
- Member() — Returns the specified member. See “Member” on page 581.
● Match() — Returns the members that match a specified pattern. See “Match” on page 582.

● Level0() — Returns the members at the bottom of the hierarchy that do not have children.

Note: Financial Management does not support the Level0 function.

● IParent() — Returns the member one level above the member-name in the same branch including parent. See “Parent” on page 578.

● IChildren() — Returns the members including the specified parent.

● IAncestors() — Returns the members at all levels above the specified member in the same branch including specified ancestor. See “Ancestors” on page 579.

● IDescendants() — Returns the members all levels including the specified parent.

● ISiblings() — Returns the members with the same parent on the same level as the member-name parameter including specified sibling. See “siblings” on page 580.

Performance Management Architect uses these technologies to retrieve and load data for Essbase and Planning:

<table>
<thead>
<tr>
<th>Load Data</th>
<th>Retrieve Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning, Essbase BSO, and Essbase ASO use Essbase Java API methods on IESSCube object, namely, begindataload, sendString, and endDataLoad.</td>
<td>Planning and Essbase BSO use calculation scripts. Essbase ASO uses report scripts.</td>
</tr>
</tbody>
</table>

Special Considerations

Keep in mind these considerations:

● Financial Management does not support the Level0() function.

● Even though the Match() function is not available from the context-menu of the Member Selector dialog box, you can manually enter the function directly in the Create Filter dialog box.

● The AllMembers(), BottomOfHierarchy(), and TopOfHierarchy() functions are not available from the context-menu of the Member Selector dialog box and are specific to Financial Management. However, you can manually enter these functions in the Create Filter dialog box. See “AllMembers” on page 582, “BottomOfHierarchy” on page 583, and “TopOfHierarchy” on page 583.

● Profitability and Cost Management uses the same syntax and code as Essbase BSO.

● When the source is Oracle Hyperion Planning, Fusion Edition, Essbase BSO, Essbase ASO, or Oracle Hyperion Profitability and Cost Management, Fusion Edition, follow standard Essbase qualification conventions if any of the arguments to a filter is a duplicate. In addition, if any of the argument passed to any of the function is a duplicate then you must qualify the member as required by Essbase.

● In Essbase ASO applications, the function Siblings() functions the same as ISiblings().
You can manually enter the following functions: IParent, IChildren, IAncestors, IDescendants, and ISiblings in the Create Filter dialog box using the following syntax: function-name(member-name).

Syntax

To use multiple functions, use a semi-colon to separate each function. For example:

Children(Quarter1); Children (Quarter2); ISiblings(Jan);

Quotes are not allowed in function syntax. For example:

siblings ("operating expenses global", Account, true)

returns an error at extraction in the data synchronization log

The correct syntax is:

siblings (operating expenses global, Account, true)

Some of the strings in the following code examples display on two or more text lines. However, strings must be defined on only one line in your code.

Examples

All of the examples are based on the following Year dimension:

Figure 1 Year Dimension

![Year Dimension Diagram]
**Parent**

Subtopics

- Syntax
- Example

Returns the member one level above the `member-name` in the same branch.

**Syntax**

**Parent** *(member-name, hierarchy, inclusive)*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>member-name</code></td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td><code>hierarchy</code></td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
<tr>
<td><code>inclusive</code></td>
<td>Set this to True or False.</td>
</tr>
<tr>
<td></td>
<td>If True, the parameter <code>member-name</code> is also returned.</td>
</tr>
<tr>
<td></td>
<td>If False, the parameter <code>member-name</code> is not returned.</td>
</tr>
</tbody>
</table>

**Example**

`parent ("Jun", "Year", "True")`

returns Jun, Q2

**Children**

Subtopics

- Syntax
- Example

Returns the members one level below the specified parent, which is the `member-name`.

**Syntax**

**Children** *(member-name, hierarchy, inclusive)*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>member-name</code></td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>hierarchy</td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
<tr>
<td>inclusive</td>
<td>If True, the parameter <code>member-name</code> is also returned. If False, the parameter <code>member-name</code> is not returned.</td>
</tr>
</tbody>
</table>

**Example**

`Children ("Qtr1", "Year", "False")`

returns Jan, Feb, Mar

**Ancestors**

**Subtopics**

- Syntax
- Example

Returns the members at all levels above the specified member in the same branch.

**Syntax**

Example 1:

`Ancestors (member-name)`

Example 2:

`Ancestors (member-name, hierarchy, inclusive)`

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>member-name</td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td>hierarchy</td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
<tr>
<td>inclusive</td>
<td>If True, the parameter <code>member-name</code> is also returned. If False, the parameter <code>member-name</code> is not returned.</td>
</tr>
</tbody>
</table>

**Example**

`Ancestors ("Jan", "Year", "True")`

returns Q1
## Descendants

### Subtopics
- Syntax
- Example

Returns the members at all levels below the specified parent, which is the `member-name`.

### Syntax

**Descendants** \( (\text{member-name}, \text{hierarchy}, \text{inclusive}) \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>member-name</td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td>hierarchy</td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
<tr>
<td>inclusive</td>
<td>If True, the parameter <code>member-name</code> is also returned.</td>
</tr>
<tr>
<td></td>
<td>If False, the parameter <code>member-name</code> is not returned.</td>
</tr>
</tbody>
</table>

### Example

Descendants \( ("Qtr1", "Year", "False") \)

returns Jan, Feb, Mar

## Siblings

### Subtopics
- Syntax
- Example

Returns the members with the same parent on the same level as the `member-name` parameter.

### Syntax

**Siblings** \( (\text{member-name}, \text{hierarchy}, \text{inclusive}) \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>member-name</td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td>hierarchy</td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
</tbody>
</table>

580 Member Query Functions Used by the Data Synchronizer
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| inclusive | Set this to **True** or **False**.  
If True, the parameter `member-name` is also returned.  
If False, the parameter `member-name` is not returned. |

### Example

**siblings** (*"Jan", "Year", "False"*)

returns Feb, Mar

**Note:** For Essbase ASO applications, the inclusive parameter is invalid and returns the member as well as members with the same parent on the same level as the `member-name` parameter. Therefore, Siblings and ISiblings function the same.

### Member

### Subtopics

- **Syntax**
- **Example**

Returns the member with the name that is provided as a character string.

#### Syntax

**Member** (*member-name*, *hierarchy*)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>member-name</code></td>
<td>The member name for the dimension.</td>
</tr>
<tr>
<td><code>hierarchy</code></td>
<td>The hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.</td>
</tr>
</tbody>
</table>

#### Example

**member** (*"Q1", "Year"*)

returns Q1
**Match**

*Subtopics*

- Syntax
- Example

Returns the members that match a specified pattern.

**Syntax**

`Match (pattern)`

where `pattern` is text string. You can use any of the following wildcard characters:

- `?` - Matches one occurrence of any character
- `*` - Matches zero or more characters. You can use the `*` at the end of string only.

**Example**

`Match ("Q?")`

returns Q1, Q2, Q3, and Q4

**AllMembers**

*Subtopics*

- Syntax
- Example

Returns all members in the hierarchy.

**Note:** AllMembers() is supported in Financial Management applications only.

**Syntax**

`AllMembers (hierarchy)`

where `hierarchy` is the hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.

**Example**

`AllMembers ("Year")`

returns all members of the Year dimension
**BottomOfHierarchy**

Subtopics

- Syntax
- Example

Returns the members that do not have children.

**Note:** BottomOfHierarchy() is supported in Financial Management applications only.

**Syntax**

BottomOfHierarchy (hierarchy)

where hierarchy is the hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.

**Example**

BottomOfHierarchy ("Year")

returns Jan, Feb, Mar, Apr, May, Jun, Q3, Q4

**Note:** Level0 and BottomOfHierarchy functions result in the same behavior. If you enter Level0, Performance Management Architect automatically converts the function to BottomOfHierarchy.

**TopOfHierarchy**

Subtopics

- Syntax
- Example

Returns the members at the top of the hierarchy that have no parent members.

**Note:** TopOfHierarchy() is supported in Financial Management applications only.

**Syntax**

TopOfHierarchy (hierarchy)

where hierarchy is the hierarchy of the dimension. In Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.
Example
TopOfHierarchy ("Year")
returns Year

Level0

Subtopics
- Syntax
- Example

Returns the members at the bottom of the hierarchy that do not have children.

Note: Oracle Hyperion Financial Management, Fusion Edition does not support the Level0 function.

Syntax
Level0 (hierarchy)

where hierarchy is the hierarchy of the dimension. In Oracle Essbase, hierarchy is the dimension name, because you cannot have different hierarchies.

Example
Level0 (Qtr1)

returns Jan, Feb, Mar
Configuration Settings in the BPMA_Server_Config.xml File

The BPMA_Server_Config.xml file has two main elements, DimensionServer and log4net. The DimensionServer section contains settings that are specific to internal workings of the Dimension Server and other related processes. The log4net section contains settings that are used by the log4net module which is used to log warnings, errors, and so on. You can find the BPMA_Server_Config.xml file in: <Hyperion_Home>\products\Foundation\BPMA\AppServer\DimensionServer\ServerEngine\bin. The following is an excerpt of the BPMA_Config_Server.xml file.

```xml
<?xml version="1.0" encoding="utf-8" ?>
<Config>
    <DimensionServer>
        <Data_Access_Layer>
            <SqlVendor>SqlServer</SqlVendor>
            <Server>localhost</Server>
            <Database>EPMA</Database>
            <Port>1433</Port>
            <LogonID>epma_db</LogonID>
            <Password>MONRJQOR</Password>
            <ConnectRetries>3</ConnectRetries>
            <ConnectRetryTimeout>2</ConnectRetryTimeout>
            <CommandTimeout>900</CommandTimeout>
        </Data_Access_Layer>
        <SessionManager>
            <JvmPath>%HYPERION_HOME%\common\JRE\Sun\1.5.0\bin\client\jvm.dll</JvmPath>
        </SessionManager>
    </DimensionServer>
</Config>
```

Note: Some descriptions in the following table indicate a default value, which are automatically pre-populated when you install Performance Management Architect. You should not leave settings blank unless noted in the following table.

The following table shows the parameter, description, and default setting for settings in the BPMA_Server_Config.xml file.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DimensionServer</td>
<td>Contains settings specific to internal workings of the Dimension Server and other related processes, such as Session Manager, Process Manager, Event Manager, Job Manager, and so on.</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Data_Access_Layer</td>
<td>Contains values that are used to create a connection to a database if the connection details cannot be retrieved from Shared Services.</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default Setting</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
<td>----------------</td>
</tr>
<tr>
<td>SqlVendor</td>
<td>The type or brand of relational database being used to store the data. Possible values are: SqlServer, Oracle, and DB2.</td>
<td></td>
</tr>
<tr>
<td><strong>SQL Server settings:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Server—name of the physical machine where the database resides. This could be localhost if the database resides on the same machine as the Dimension Server.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Database—name of the database.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Port — port number that the database accepts connections on (1433 is the default for SQL Server). (This setting can be left blank.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oracle settings:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- OracleRAC—Set to &quot;True&quot; to indicate that the database being connected to is an Oracle Real Application Cluster configuration. Set to &quot;False&quot; or the complete absence of the OracleRAC element indicates a non-OracleRAC database configuration.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Server—name of the physical machine where the database resides. This value can be localhost if the database resides on the same machine as the Dimension Server. This parameter can be left blank when desiring to connect via a Net Service Name that has been defined on the client (Dimension Server) machine in the tnsnames.ora file.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Database</td>
<td>For an OracleRAC database configuration this value contains the database SERVICE_NAME.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For a non-OracleRAC database configuration, without a Net Service Name defined in the tnsnames.ora file on the client (Dimension Server) machine, would contain the database SID.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For a non-OracleRAC database configuration, with a Net Service Name defined in the tnsnames.ora file on the client (Dimension Server) machine, would contain the Net Service Name that is defined in the tnsnames.ora file on the client (Dimension Server) machine.</td>
<td></td>
</tr>
<tr>
<td>- Port</td>
<td>For an OracleRAC database configuration, the port number that the database accepts connections on (1521 is the default for Oracle).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For a non-OracleRAC database configuration without a Net Service Name defined in the tnsnames.ora file on the client (Dimension Server) machine, the port number that the database accepts connections on (1521 is the default for Oracle).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If a Net Service Name is defined in the tnsnames.ora file on the client (Dimension Server) machine, the port number that the database accepts connections on (1521 is the default for Oracle).</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default Setting</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>SessionManager</td>
<td>Contains values that are used by the Session Manager service to connect to Shared Services via the NetJNIBridge Service. Oracle's Hyperion® Shared Services is used by the Session Manager to retrieve user authentication, group, role, rights information as well as database connection information, and so on.</td>
<td></td>
</tr>
<tr>
<td>EnableNestedGroups</td>
<td>Set to &quot;True&quot; to indicate that when group memberships are requested for a particular user, any nested groups will be returned along with top-level groups. You can set this to &quot;False&quot; to indicate that when group memberships are requested for a particular user, only top-level groups will be returned (no nested groups will be included).</td>
<td>True</td>
</tr>
<tr>
<td>NetJNIBridgePort</td>
<td>Port number used by the NetJNIBridge service to communicate with the SessionManager service.</td>
<td>5255</td>
</tr>
<tr>
<td>NetJNIBridgeHost</td>
<td>Name of the physical machine where the NetJNIBridge service is running. The name can be localhost if NetJNIBridge is running on the same machine as the Dimension Server.</td>
<td></td>
</tr>
<tr>
<td>ProcessManager</td>
<td>Contains values used by the Process Manager service to manage one or more engine instances, an event subscription, and time allotted to start.</td>
<td></td>
</tr>
<tr>
<td>ServerManagerPort</td>
<td>Port number used by Engine Manager service(s) to communicate with the Process Manager service.</td>
<td>5255</td>
</tr>
<tr>
<td>Port</td>
<td>Port number used by other services to communicate with the Process Manager service.</td>
<td>5251</td>
</tr>
<tr>
<td>EventSubscriptionPort</td>
<td>Port number used by the Event Manager service to communicate with the Process Manager service. When an event occurs that the Process Manager service has subscribed to, the Event Manager service notifies the Process Manager service over that port.</td>
<td>5252</td>
</tr>
<tr>
<td>HostName</td>
<td>Name of the physical machine where the Process Manager service is running.</td>
<td>localhost</td>
</tr>
<tr>
<td>MinEnginePort</td>
<td>Lower end of the range of possible port numbers that a started Dimension Server engine can listen on.</td>
<td>5100</td>
</tr>
<tr>
<td>MaxEnginePort</td>
<td>Upper end of the range of possible port numbers that a started Dimension Server engine can listen on.</td>
<td>5140</td>
</tr>
<tr>
<td>DimensionServerStartupTimeout</td>
<td>The number of seconds to wait for an instance of the dimension server to start before throwing an exception.</td>
<td>300</td>
</tr>
<tr>
<td>ExportCompressionThreshold</td>
<td>The maximum number of bytes in size for an exported application before the export is compressed.</td>
<td>102400</td>
</tr>
<tr>
<td>ExportXSLPath</td>
<td>The path to the .xslt files that are used to format application exports.</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default Setting</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>OutputExportDocuments</td>
<td>Enables or disables the creation of files in the file system during an application export (which is part of deployment). By default it is disabled and set to false. To enable it, set the value to true.</td>
<td>False</td>
</tr>
<tr>
<td>ProductMetadataPath</td>
<td>The path to the .xml files that define the product metadata. This is used by the Dimension Server to load property definitions, and so on.</td>
<td></td>
</tr>
<tr>
<td>CustomMetadataPath</td>
<td>(Deprecated)</td>
<td></td>
</tr>
<tr>
<td>Validations</td>
<td>Contains values that are used to control validations. Contains the following settings: Application, MaxReportedErrors, MaxReportedWarnings, and DefaultMessages.</td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Contains values to are used to control application validations.</td>
<td></td>
</tr>
<tr>
<td>MaxReportedErrors</td>
<td>The maximum number of errors that will be recorded when an application is validated.</td>
<td>5000</td>
</tr>
<tr>
<td>MaxReportedWarnings</td>
<td>The maximum number of warnings that will be recorded when an application is validated.</td>
<td>5000</td>
</tr>
<tr>
<td>DefaultMessages</td>
<td>The maximum number of combined errors and warnings that will be reported to the user when an application is validated.</td>
<td>25</td>
</tr>
<tr>
<td>AutoCleanupTemporaryApplicationsStartTime</td>
<td>Control how the server automatically cleans up temporary applications. Temporary applications are used by the Application Creation Wizard, and if a temporary application is not properly cleaned up, there is a chance it will never get removed. By default, the server will automatically remove any applications marked as &quot;temporary,&quot; at 4:00:00 (4 am). <strong>Note:</strong> The time is in local time, military format. For example, the format for 2:30 p.m. is entered as 14:30:00. You can adjust the time by modifying the AutoCleanupTemporaryApplicationsStartTime setting. By default, applications that are older than 24 hours will be included for cleanup. The minimum age of an application can be modified by setting the AutoCleanupTemporaryApplicationsMinimumAge value in number of minutes.</td>
<td>AutoCleanupTemporaryApplicationsStartTime default is 4:00:00. AutoCleanupTemporaryApplicationsMinimumAge default is 1440.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Default Setting</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>PurgeBaselineStartTime</td>
<td>Sets the time when the automatic purging of baselines that are no longer needed will begin. By default, it is at 3:00 a.m. local time (entered as 3:00:00). Note: The time is in local time, military format. For example, the format for 2:30 p.m. is entered as 14:30:00.</td>
<td>3:00:00</td>
</tr>
<tr>
<td>ImportErrorThreshold</td>
<td>Maximum number of combined errors and warnings that can occur before a running import shuts down.</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>Minimum value: 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No maximum value defined</td>
<td></td>
</tr>
<tr>
<td>ImportMaxLockTime</td>
<td>The minimum, not maximum, number of milliseconds a running import must run before reacquiring an engine write lock.</td>
<td>1000</td>
</tr>
<tr>
<td>ExcludedMemberLimit</td>
<td>Limits the number of members returned by the EnumExcludedMembers() API call.</td>
<td>5000</td>
</tr>
<tr>
<td></td>
<td>Minimum value: 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum value: 5000</td>
<td></td>
</tr>
<tr>
<td>EventManager</td>
<td>Contains settings used by other services (Process Manager, Engine Manager, Job Manager) to communicate with the Event Manager service. Host—the name of the machine where the Event Manager service is running. Port—port number that the Event Manager can be contacted.</td>
<td>Host default is localhost. Port default is 5253.</td>
</tr>
<tr>
<td>JobManager</td>
<td>Contains settings used by other services (i.e. Process Manager) to communicate with the Job Manager service. Host—the name of the machine where the Job Manager service is running. Port—port number that the Job Manager can be contacted. AttachmentFolder—the local path to the folder where job attachments are stored.</td>
<td>Host default is localhost. Port default is 5254. AttachmentFolder default is C:\Temp \JobManagerAttachments.</td>
</tr>
<tr>
<td>log4net</td>
<td>Contains settings used by the log4net module to log errors, debug information, and so on. Caution! You should not change values in this section unless specifically directed by Oracle Customer Support.</td>
<td></td>
</tr>
</tbody>
</table>
This appendix describes Calculation Manager accessibility and compatibility features. For information on the recommended screen reader and magnifier to use with Calculation Manager, refer to the *Oracle Hyperion Planning Readme* or the *Oracle Hyperion Financial Management Readme*.

### Screen Reader and Magnifier Standards

For Calculation Manager, Oracle supports the JAWS 8 screen reader and the MAGiC 10.5 screen magnifier. For additional information, refer to the documentation included with these products.

**Note:** Oracle does not recommend using JAWS and MAGiC simultaneously or using MAGiC as a screen reader.

#### Setting Preferences for JAWS

Preferences for JAWS should be set to allow JAWS to read the page properly and react to user interface updates. MAGiC does not require any configuration changes to work with Calculation Manager.

Following is a list of the preferences that you need to customize in JAWS.

- You should disable Forms Mode Auto Off in JAWS.
To disable Forms Mode Auto Off in JAWS, select **Utilities**, then **Configuration Manager**, then **Set Options**, then **HTML Options**, then **Misc**, then **Forms Mode Auto Off**.

You should disable Virtual PC Cursor when using Calculation Manager/DHTML applications, and enable it when reading regular documents.

To set the default state of the cursor, do either of these tasks:

- Use the shortcut key **Ctrl-Alt-NumPadPlus** to toggle Virtual PC Cursor.
- Select **Utilities**, then **Configuration Manager**, then **Set Options**, then **Advanced Options**, and then **Use Virtual PC Cursor**.
- You should disable the Control Group Name preference in JAWS Verbosity Options. This prevents redundant reading of controls caused by the way the user interface is laid out.

To disable the Control Group Name preference in JAWS Verbosity Options, select **Utilities**, then **Configuration Manager**, then **Set Options**, then **Verbosity Options**, then **Beginner Preferences** (or whichever verbosity level is selected), and then **Control Group Name**.

### Enabling Screen Reader Support for Calculation Manager

When you enable screen reader support for Calculation Manager, preference screen readers, magnifiers, and other tools work with Calculation Manager. If screen reader support is not enabled, accessibility tools cannot use most of Calculation Manager. If you change this setting during a session, you must restart your browser to enable the changes.

**Note:** The Enable Screen Reader Support option is displayed in the EPM Workspace user preferences General tab when using Internet Explorer 6 and 7.

To enable accessibility in Calculation Manager:

1. In EPM Workspace, select **File**, then **Preferences**.
2. From **Accessibility Mode**, select **Enable Screen Reader Support**.
3. Click **OK**.

### Setting High-Contrast Mode

A high-contrast color mode is available for accessibility. This option is supported only on the same platforms on which screen readers are supported.

To set high-contrast mode:

1. Do one of these tasks:
Select File, then Preferences. From Accessibility Mode, select High Contrast from the Select Theme menu.

Select Ctrl-Shift-H to toggle between regular and high-contrast mode. You are prompted to either restart Oracle Enterprise Performance Management Workspace, Fusion Edition or continue working. If you restart, you are reauthenticated transparently.

2. Click OK.

**Using the Tab Key in the Calculation Manager User Interface**

Default tab order in the Calculation Manager user interface flows from left to right and top to bottom. The component order is: toolbar, search control, object palette, content area, and content area (bottom) tab bar. The tab order loops in both directions so that tabbing from the last item focuses the first item, and reverse-tabbing from the first item focuses the last item. The following elements are not included in the tab order:

- The Navigate menu
- The main menu bar (Use shortcut keys to access menu items.)
- The “Welcome <username>” message and the accompanying logoff text link (Use the logoff or the exit icon in the toolbar or items from the File menu instead.)

**Note:** Accessibility Mode ensures that the toolbar can be navigated using tabs.

**Using Global Navigation Shortcuts**

Calculation Manager provides keyboard shortcuts for general navigation.

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>F10</td>
<td>Focus and activate Menu bar's first Menu Button (Individual Alt+letter accessors may also be used.)</td>
</tr>
<tr>
<td>Ctrl+0</td>
<td>Focus current object palette (An object palette cannot have focus itself, so this focuses the first valid child in the tab order.) If there is no object palette, nothing happens.</td>
</tr>
<tr>
<td>Ctrl+1,2...9</td>
<td>Select the first, second, through ninth object palette and move focus to its first focusable child.</td>
</tr>
<tr>
<td>Ctrl+R</td>
<td>Focus Related Content control</td>
</tr>
<tr>
<td>Ctrl+B</td>
<td>Focus Collaboration Area control</td>
</tr>
<tr>
<td>Ctrl+G</td>
<td>Focus bottom tab bar of Workspace (which lists open modules). Focus goes to current tab. If there are no open tabs, nothing happens.</td>
</tr>
</tbody>
</table>
### Keyboard Shortcut

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+F</td>
<td>Focus the Search text box</td>
</tr>
<tr>
<td>Ctrl+T</td>
<td>Focus the toolbar. Use the Tab key to select individual buttons.</td>
</tr>
<tr>
<td>Ctrl+Y</td>
<td>Focus the content area. As with object palette, this transfers focus to the first valid child in the tab order.</td>
</tr>
<tr>
<td>Ctrl+F4</td>
<td>Close current module. If no modules are open, nothing happens.</td>
</tr>
<tr>
<td>Ctrl+Shift+H</td>
<td>Toggle High-Contrast Mode</td>
</tr>
<tr>
<td>Ctrl+F6 followed by Tab</td>
<td>Opening document in focus moves focus into and out of an iframe</td>
</tr>
<tr>
<td>Ctrl+Shift+F6</td>
<td>Remove focus from an iframe</td>
</tr>
<tr>
<td>Arrow keys (left/right/bottom/top).</td>
<td>Move around Explore module and access different cells and rows in a grid or tree view</td>
</tr>
</tbody>
</table>

### Accessibility Behaviors for General User Interface Elements

Listed below are keystrokes that activate user interface elements and the expected behavior of screen readers when the user interface element is focused.

**Table 67  User Interface Element Types**

<table>
<thead>
<tr>
<th>User Interface Element</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Button</td>
<td>Either Enter or Space activates the button, causing the same action as a left click.</td>
</tr>
</tbody>
</table>
| ComboBox               | 1. Up or down arrow keys display the popup menu and allow selection of combobox values.  
2. Space or Enter selects a combobox item from the popup.  
3. If editable, alphanumeric keys make an edit. |
| Dialog                 | 1. If the dialog has an Accept button defined, the Enter key activates it.  
2. The dialog is modal and blocks all other keyboard events. |
| Content Area (IFrame)  | 1. Ctrl + F6 navigates into the content area (iframe), selecting the first element.  
2. Ctrl + Shift + F6 navigates out of the content area (iframe), returning focus to the content area. |
| List                   | 1. The up or down arrow keys move selection focus up or down through the list elements. The selection is continually updated. An arrow key press results in a selection event.  
2. The Ctrl + Up or Down key moves focus up or down without changing the current selection. The spacebar can be used to add the focused item to the selection.  
3. The Shift + Up or Down key moves focus up or down, and the newly focused item is added to the selection.  

**Note:** If the list supports only a single selection, the Ctrl and Shift modifiers have no effect.
User Interface Element | Action
--- | ---
Tab Bar | Left or right arrow keys move selection focus and select the new tab immediately. The selection focus wraps around the ends of the tab bar.

Text Field | 1. If editable, alphanumeric keys make an edit.
2. Tab proceeds in the tab order.
3. Tab cannot be entered as a character in the text field.

Tree | The left and right arrow keys collapse or expand the current node if it has children. If it has no children, there is no effect. The expansion is non-recursive. However, if the tree is capable of remembering the previous expansion state of any subnodes, it should do so.

### Accessibility for Calculation Manager

The following table provides keyboard shortcuts for Hyperion Calculation Manager.

**Table 68 Calculation Manager Shortcut Keys**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
<th>Mnemonic Shortcut(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global Menu</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File</td>
<td>Alt+F</td>
<td>Alt+F</td>
<td></td>
</tr>
<tr>
<td>File, New Rule</td>
<td>Ctrl+Shift+R</td>
<td>Alt+F, N, R</td>
<td></td>
</tr>
<tr>
<td>File, New Ruleset</td>
<td>Ctrl+Shift+L</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, New Template</td>
<td>Ctrl+Shift+M</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, Formula Component</td>
<td>Ctrl+Shift+F</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, Script Component</td>
<td>Ctrl+Shift+C</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, Print</td>
<td>No keyboard shortcut</td>
<td>Alt+F, P</td>
<td></td>
</tr>
<tr>
<td>Import</td>
<td>No keyboard shortcut</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Log Off</td>
<td>No keyboard shortcut</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Exit</td>
<td>No keyboard shortcut</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>Alt+E</td>
<td>Alt+E</td>
<td></td>
</tr>
<tr>
<td>Edit, Delete</td>
<td>No keyboard shortcut</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Edit, Remove</td>
<td>No keyboard shortcut</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Tools</td>
<td>Alt+T</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Tools, Variables</td>
<td>Ctrl+Shift+B</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>Alt+C</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Actions, Validate</td>
<td>No keyboard shortcut</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>Actions, Migrate</td>
<td>No keyboard shortcut</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>Close Module</td>
<td>Ctrl+F4</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td><strong>Variable Designer</strong></td>
<td></td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, New Variable</td>
<td>Ctrl+Shift+V</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>File, Save</td>
<td>Ctrl+S</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td><strong>Context Menu</strong></td>
<td></td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>No keyboard shortcut</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Delete</td>
<td>No keyboard shortcut</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Copy</td>
<td>No keyboard shortcut</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Paste</td>
<td>No keyboard shortcut</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Save</td>
<td>No keyboard shortcut</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td><strong>Variable Properties Grid</strong></td>
<td></td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Toggle Runtime Prompt</td>
<td>Alt+Shift+P</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Alt+Shift+U</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Limits</td>
<td>Alt+Shift+L</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td><strong>Rule Designer</strong></td>
<td></td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>File, Save</td>
<td>Ctrl+S</td>
<td>Alt+F, S</td>
<td></td>
</tr>
<tr>
<td>File, Save As</td>
<td>No keyboard shortcut</td>
<td>Alt+F, A</td>
<td></td>
</tr>
<tr>
<td>File, Save As Template</td>
<td>No keyboard shortcut</td>
<td>Alt+F, M</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td>Alt+E</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Edit, Copy</td>
<td>Ctrl+C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Edit, Paste</td>
<td>Ctrl+V</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Edit, Copy Group</td>
<td>No keyboard shortcut</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>------------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>Edit, Copy Reference</td>
<td>No keyboard shortcut</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Edit, Script</td>
<td>No keyboard shortcut</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Tools</td>
<td>Alt+T</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Tools, Quick Edit</td>
<td>No keyboard shortcut</td>
<td>Q</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>Alt+C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actions, Validate</td>
<td>Ctrl+M</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>Actions, Deploy</td>
<td>Ctrl+D</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td><strong>Context Menu</strong></td>
<td></td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Copy</td>
<td>No keyboard shortcut</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Remove</td>
<td>No keyboard shortcut</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Copy Group</td>
<td>No keyboard shortcut</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Collapse</td>
<td>No keyboard shortcut</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Expand</td>
<td>No keyboard shortcut</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Paste</td>
<td>No keyboard shortcut</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Save As Template</td>
<td>No keyboard shortcut</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Zoom In</td>
<td>Ctrl+Shift+2</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Zoom Out</td>
<td>Ctrl+Shift+1</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td><strong>Rule, Template Palette</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copy (from Palette)</td>
<td>D</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Paste by Reference (into rule)</td>
<td>R</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Paste by Copy</td>
<td>Ctrl+R</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td>Paste in Else part of condition</td>
<td>Shift+R</td>
<td>No mnemonic shortcut</td>
<td></td>
</tr>
<tr>
<td><strong>System View</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools, Filter</td>
<td>No keyboard shortcut</td>
<td>Alt+T, F</td>
<td></td>
</tr>
<tr>
<td>View, List View</td>
<td>No keyboard shortcut</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>View, System View</td>
<td>No keyboard shortcut</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut¹</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>View, Custom View</td>
<td>No keyboard shortcut</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>View, Deployment View</td>
<td>No keyboard shortcut</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

**Context Menu**

<table>
<thead>
<tr>
<th>Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
</tr>
<tr>
<td>Delete</td>
<td>No keyboard shortcut</td>
<td>D</td>
</tr>
<tr>
<td>New</td>
<td>No keyboard shortcut</td>
<td>N</td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
</tr>
<tr>
<td>Validate</td>
<td>No keyboard shortcut</td>
<td>V</td>
</tr>
<tr>
<td>Deploy</td>
<td>No keyboard shortcut</td>
<td>P</td>
</tr>
<tr>
<td>Deploy All</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Copy To</td>
<td>No keyboard shortcut</td>
<td>Y</td>
</tr>
<tr>
<td>Create Shortcut</td>
<td>No keyboard shortcut</td>
<td>S</td>
</tr>
<tr>
<td>Show Usages</td>
<td>No keyboard shortcut</td>
<td>U</td>
</tr>
<tr>
<td>Migrate</td>
<td>No keyboard shortcut</td>
<td>M</td>
</tr>
<tr>
<td>Change Owner</td>
<td>No keyboard shortcut</td>
<td>W</td>
</tr>
<tr>
<td>Set Logger</td>
<td>No keyboard shortcut</td>
<td>L</td>
</tr>
<tr>
<td>Set Comments</td>
<td>No keyboard shortcut</td>
<td>C</td>
</tr>
<tr>
<td>Set Timer</td>
<td>No keyboard shortcut</td>
<td>T</td>
</tr>
</tbody>
</table>

**Custom View**

<table>
<thead>
<tr>
<th>Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>File, Rename</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
</tbody>
</table>

**Context Menu**

<table>
<thead>
<tr>
<th>Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
</tr>
<tr>
<td>New</td>
<td>No keyboard shortcut</td>
<td>N</td>
</tr>
<tr>
<td>New Folder</td>
<td>No keyboard shortcut</td>
<td>F</td>
</tr>
<tr>
<td>New Rule</td>
<td>No keyboard shortcut</td>
<td>U</td>
</tr>
<tr>
<td>New Ruleset</td>
<td>No keyboard shortcut</td>
<td>L</td>
</tr>
<tr>
<td>New Formula</td>
<td>No keyboard shortcut</td>
<td>M</td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut¹</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>New Script</td>
<td>No keyboard shortcut</td>
<td>S</td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>H</td>
</tr>
<tr>
<td>Rename</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td>Remove</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
</tr>
<tr>
<td>Validate</td>
<td>No keyboard shortcut</td>
<td>V</td>
</tr>
<tr>
<td>Show Usages</td>
<td>No keyboard shortcut</td>
<td>U</td>
</tr>
<tr>
<td>Drag</td>
<td>Ctrl+C</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Drop</td>
<td>Ctrl+V</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

**Deployment View**

**Context Menu**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Export</td>
<td>No keyboard shortcut</td>
<td>E</td>
</tr>
<tr>
<td>Deploy</td>
<td>Alt+Shift+Y</td>
<td>P</td>
</tr>
<tr>
<td>Deploy All</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td>Validate</td>
<td>Alt+Shift+L</td>
<td>V</td>
</tr>
<tr>
<td>Mark Selected</td>
<td>No keyboard shortcut</td>
<td>K</td>
</tr>
<tr>
<td>Unmark Selected</td>
<td>No keyboard shortcut</td>
<td>M</td>
</tr>
<tr>
<td>Show Usages</td>
<td>No keyboard shortcut</td>
<td>U</td>
</tr>
<tr>
<td>Set Logger</td>
<td>No keyboard shortcut</td>
<td>L</td>
</tr>
<tr>
<td>Set Comments</td>
<td>No keyboard shortcut</td>
<td>C</td>
</tr>
<tr>
<td>Set Timer</td>
<td>No keyboard shortcut</td>
<td>T</td>
</tr>
<tr>
<td>Check/Uncheck checkbox</td>
<td>Space</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

**Template Designer**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Alt+F</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>File, Save</td>
<td>Ctrl+S</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>File, Save As</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Edit</td>
<td>Alt+E</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Edit, Copy</td>
<td>Ctrl+C</td>
<td>C</td>
</tr>
<tr>
<td>Edit, Paste</td>
<td>Ctrl+V</td>
<td>P</td>
</tr>
<tr>
<td>Edit, Copy Group</td>
<td>No keyboard shortcut</td>
<td>G</td>
</tr>
<tr>
<td>Tools</td>
<td>Alt+T</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Tools, Variables</td>
<td>Ctrl+Shift+V</td>
<td>V</td>
</tr>
<tr>
<td>Tools, Quick Edit</td>
<td>No keyboard shortcut</td>
<td>Q</td>
</tr>
</tbody>
</table>

**Template Grid**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density Dialog</td>
<td>Alt+Shift+S</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Dependency</td>
<td>Alt+Shift+N</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Range</td>
<td>Alt+Shift+I</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Design Time Prompt Selector</td>
<td>Alt+Shift+K</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Delete Row</td>
<td>Delete Key</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Insert Row</td>
<td>Insert Key</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Move Up</td>
<td>Alt+Shift+U</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Move Down</td>
<td>Alt+Shift+W</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Check/uncheck checkbox</td>
<td>Alt+Shift+O</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

**Context Menu**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert Row</td>
<td>No keyboard shortcut</td>
<td>I</td>
</tr>
<tr>
<td>Delete Row</td>
<td>No keyboard shortcut</td>
<td>D</td>
</tr>
<tr>
<td>Copy</td>
<td>No keyboard shortcut</td>
<td>C</td>
</tr>
<tr>
<td>Copy Grid</td>
<td>No keyboard shortcut</td>
<td>G</td>
</tr>
<tr>
<td>Paste</td>
<td>No keyboard shortcut</td>
<td>P</td>
</tr>
</tbody>
</table>

**Template Reference**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit a cell</td>
<td>F2</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Check/uncheck a check box</td>
<td>Space</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

**Formula Component**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Dialog</td>
<td>Alt+Shift+G</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut¹</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Comment Dialog</td>
<td>Alt+Shift+N</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Condition Dialog</td>
<td>Alt+Shift+I</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Enable Member Block</td>
<td>Tab key and Space</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Disable Member Block</td>
<td>Tab key and Space</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Member Block Action</td>
<td>Tab key and Space</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Change the drop down menu to inline edit mode</td>
<td>F2 (in Edit mode)</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

**Context Menu**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert Members</td>
<td>No keyboard shortcut</td>
<td>M</td>
</tr>
<tr>
<td>Edit Selection</td>
<td>No keyboard shortcut</td>
<td>S</td>
</tr>
<tr>
<td>Insert Condition</td>
<td>No keyboard shortcut</td>
<td>L</td>
</tr>
<tr>
<td>Delete Condition</td>
<td>No keyboard shortcut</td>
<td>T</td>
</tr>
<tr>
<td>Insert Row</td>
<td>No keyboard shortcut</td>
<td>I</td>
</tr>
<tr>
<td>Delete Row</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Add Grid Before</td>
<td>No keyboard shortcut</td>
<td>B</td>
</tr>
<tr>
<td>Add Grid After</td>
<td>No keyboard shortcut</td>
<td>F</td>
</tr>
<tr>
<td>Add Grid End</td>
<td>No keyboard shortcut</td>
<td>E</td>
</tr>
<tr>
<td>Delete Grid</td>
<td>No keyboard shortcut</td>
<td>D</td>
</tr>
<tr>
<td>Copy Row</td>
<td>No keyboard shortcut</td>
<td>C</td>
</tr>
<tr>
<td>Copy all rows</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td>Paste</td>
<td>No keyboard shortcut</td>
<td>P</td>
</tr>
</tbody>
</table>

**Script Component**

<table>
<thead>
<tr>
<th>Menu, Button, or Task</th>
<th>Keyboard Shortcut</th>
<th>Mnemonic Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find</td>
<td>Ctrl+F</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Replace</td>
<td>Ctrl+R</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Member Selector</td>
<td>Alt+Shift+B</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Function Selector</td>
<td>Alt+Shift+U</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Variable Selector</td>
<td>Alt+Shift+G</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Tabbing in Script Editor</td>
<td>Ctrl+B</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Menu, Button, or Task</td>
<td>Keyboard Shortcut</td>
<td>Mnemonic Shortcut¹</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>Component Designer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Move Up</td>
<td>Alt+Shift+U</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Move Down</td>
<td>Alt+Shift+W</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Group</td>
<td>G</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Ungroup</td>
<td>N</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Delete</td>
<td>Delete key</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Add Condition</td>
<td>Insert key</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Replace Condition</td>
<td>Alt+Shift+R</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td><strong>Ruleset Designer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>File, Save</td>
<td>Ctrl+S</td>
<td>S</td>
</tr>
<tr>
<td>File, Save As</td>
<td>No keyboard shortcut</td>
<td>A</td>
</tr>
<tr>
<td><strong>Context Menu</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
</tr>
<tr>
<td>Remove</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Move Up</td>
<td>Alt+Shift+U</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Move Down</td>
<td>Alt+Shift+D</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Drag</td>
<td>Ctrl+C</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td>Drop</td>
<td>Ctrl+V</td>
<td>No mnemonic shortcut</td>
</tr>
<tr>
<td><strong>Existing Objects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Context Menu</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refresh</td>
<td>No keyboard shortcut</td>
<td>R</td>
</tr>
<tr>
<td>Open</td>
<td>No keyboard shortcut</td>
<td>O</td>
</tr>
<tr>
<td><strong>Loop Builder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment dialog</td>
<td>Alt+Shift+N</td>
<td>No mnemonic shortcut</td>
</tr>
</tbody>
</table>

¹Any keys joined by a + sign must be pressed simultaneously.

²For templates and business rules, when you drag components from the Object Palette and drop them into a flow chart, use the keyboard shortcuts or the Tab key to set the focus on the correct component and shortcut.
### Accessibility for Online Help

This table lists the keyboard shortcuts for online help.

**Table 69  Online Help, Keyboard Shortcuts**

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl-Shift-1</td>
<td>Open and move focus to the Contents tab.</td>
</tr>
<tr>
<td>Ctrl-Shift-2</td>
<td>Open and move focus to the Index tab.</td>
</tr>
<tr>
<td>Ctrl-Shift-3</td>
<td>Open and move focus to the Search tab.</td>
</tr>
<tr>
<td>Ctrl-Shift-4</td>
<td>Move focus to the content frame, which is the frame that contains help topics.</td>
</tr>
</tbody>
</table>
In This Appendix

Keyboard Equivalents.................................................................................... 605
Application Upgrade Wizard ............................................................................ 615
Manage Planning Data Sources ........................................................................ 615
Job Console .............................................................................................. 615
Data Synchronization .................................................................................... 616

Keyboard Equivalents

The following tables describe keyboard equivalents available in Performance Management Architect. The keyboard equivalents are organized by Oracle Hyperion EPM Architect, Fusion Edition module.

Navigating through the User Interface

The following table describes keyboard equivalents to navigating the user interface.

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Right Arrow</td>
<td>Expands a dimension or member in the Dimension Library</td>
</tr>
<tr>
<td>Down Arrow and Up Arrow</td>
<td>Selects dimensions and members in the Dimension Library</td>
</tr>
<tr>
<td>Tab</td>
<td>Selects items on the screen (to the right)</td>
</tr>
<tr>
<td>Shift+Tab</td>
<td>Selects previous items on the screen (to the left)</td>
</tr>
</tbody>
</table>

Dimension Library

The following sections describe the keyboard shortcuts available in the Dimension Library.
Table 71  Dimension Library Keyboard Shortcuts

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Shift+N</td>
<td>Create a new dimension</td>
</tr>
<tr>
<td>Ctrl+Shift+Z</td>
<td>Launch the application wizard to create a new application</td>
</tr>
<tr>
<td>Ctrl+Shift+F</td>
<td>Create a new folder</td>
</tr>
<tr>
<td>Ctrl+Shift+E</td>
<td>Search for dimensions</td>
</tr>
<tr>
<td>Ctrl+Alt+C</td>
<td>Clear filter criteria</td>
</tr>
<tr>
<td>Ctrl+Shift+S</td>
<td>Clear sort criteria</td>
</tr>
<tr>
<td>Ctrl+Alt+1</td>
<td>Display the view pane. (The view pane must always display.)</td>
</tr>
<tr>
<td>Ctrl+Alt+V</td>
<td>If the Shared Library pane is closed, this shows Shared Library</td>
</tr>
<tr>
<td>Ctrl+Alt+E</td>
<td>If the application pane is closed, this shows the application pane</td>
</tr>
<tr>
<td>Ctrl+Alt+P</td>
<td>If the Property Grid is closed, this shows the Property Grid</td>
</tr>
<tr>
<td>Ctrl+Alt+L</td>
<td>If the member list is closed or not displayed, this shows the member list</td>
</tr>
<tr>
<td>Ctrl+Shift+R</td>
<td>Refresh</td>
</tr>
<tr>
<td>Ctrl+Alt+T</td>
<td>Download transaction logs.</td>
</tr>
<tr>
<td>Ctrl+Alt+O</td>
<td>Sort dimensions</td>
</tr>
<tr>
<td>Ctrl+Alt+F</td>
<td>Filter dimensions</td>
</tr>
<tr>
<td>Ctrl+Shift+M</td>
<td>Manage taskflows</td>
</tr>
<tr>
<td>Ctrl+Shift+T</td>
<td>View taskflow status</td>
</tr>
<tr>
<td>Ctrl+U</td>
<td>Migrate users</td>
</tr>
</tbody>
</table>

Dimension Library Panes

The following keyboard shortcuts are supported in the Dimension Library panes.

Table 72  Dimension Library – Panes Accessibility Keys

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects the Shared Library pane.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the Application pane.</td>
</tr>
<tr>
<td>Ctrl+3</td>
<td>Selects the Property Grid or Member Find pane.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Key</td>
<td>Action</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Shift+Left arrow</td>
<td>Moves the vertical split pane to the left for the Shared Library pane, Application pane, or Property Grid.</td>
</tr>
<tr>
<td>Shift+Right arrow</td>
<td>Moves the vertical split pane to the right for the Shared Library pane, Application pane, or Property Grid.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of selected item in the Shared Library, Application pane, Property Grid, or Find Member pane.</td>
</tr>
</tbody>
</table>

### Dimension Library Tree
The following keyboard shortcuts are supported in the Dimension Library dimension tree.

**Table 73** Dimension Library – Dimension Tree Accessibility Keys

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up arrow</td>
<td>Selects the next node above the current.</td>
</tr>
<tr>
<td>Down arrow</td>
<td>Selects the next node below the current.</td>
</tr>
<tr>
<td>Right arrow</td>
<td>Expands a node that displays the plus [+] sign.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Properties of a dimension display when you select a dimension in the Shared Library or application and press the right arrow key.</td>
</tr>
<tr>
<td>Left arrow</td>
<td>Collapses a node that displays the minus [-] sign.</td>
</tr>
</tbody>
</table>

**Note:** The keystrokes listed in the above table are the same if you are working in the Application tree.

### Grid Editor
The following keyboard shortcuts are supported in the Grid Editor.

**Table 74** Grid Editor – Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grid Editor Wizard</strong></td>
<td></td>
</tr>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Up arrow</td>
<td>Selects the next node above the current in the tree.</td>
</tr>
<tr>
<td>Down arrow</td>
<td>Selects the next node below the current in the tree.</td>
</tr>
<tr>
<td>Right arrow</td>
<td>Expands a node that displays the plus [+] sign.</td>
</tr>
<tr>
<td>Left arrow</td>
<td>Collapses a node that displays the minus [-] sign.</td>
</tr>
<tr>
<td><strong>Grid Editor</strong></td>
<td></td>
</tr>
<tr>
<td>Ctrl+1</td>
<td>Selects the Grid Editor pane.</td>
</tr>
<tr>
<td>Keys</td>
<td>Action</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses vertically in the grid.</td>
</tr>
<tr>
<td>Arrow right or left</td>
<td>Traverses horizontally in the grid.</td>
</tr>
<tr>
<td>Space bar</td>
<td>Selects or deselects a check box.</td>
</tr>
<tr>
<td>F2</td>
<td>Edits a cell in the grid. For example, you can press F2 when the focus is on the Member Formula cell to display the Member Formula dialog box. In addition, the F2 key also enables the drop-down list in properties such as Is ICP.</td>
</tr>
</tbody>
</table>

**Member Selector Dialog Box**

The following keyboard shortcuts are supported in the Member Selector dialog box.

**Table 75**  
**Member Selector — Accessibility Keys**

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Up arrow</td>
<td>Selects the next node above the current in the tree.</td>
</tr>
<tr>
<td>Down arrow</td>
<td>Selects the next node below the current in the tree.</td>
</tr>
<tr>
<td>Right arrow</td>
<td>Expands a node that displays the plus [+] sign.</td>
</tr>
<tr>
<td>Left arrow</td>
<td>Collapses a node that displays the minus [-] sign.</td>
</tr>
</tbody>
</table>

**Member Find Pane**

The following keyboard shortcuts are supported in the Member Find pane.

**Table 76**  
**Member Find Pane — Accessibility Keys**

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrow up or down</td>
<td>If the focus is in the Member Find pane, the up or down arrow traverses through the members.</td>
</tr>
</tbody>
</table>
### Plan Type Performance Settings Dialog Box

The following keyboard shortcuts are supported in the Plan Type Performance Settings dialog box.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrow up or down</td>
<td>Traverses through the dimension associations.</td>
</tr>
</tbody>
</table>

### Reorder Children Dialog Box

The following keyboard shortcuts are supported in the Reorder Children dialog box.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down the drop-down menu.</td>
</tr>
<tr>
<td>Enter</td>
<td>Selects an item in the drop-down menu.</td>
</tr>
<tr>
<td>Up arrow</td>
<td>Traverses up through the dimensions.</td>
</tr>
<tr>
<td>Down arrow</td>
<td>Traverses down through the dimensions.</td>
</tr>
</tbody>
</table>

### Edit Application Dialog Box

The following keyboard shortcuts are supported in the Edit Application dialog box.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses through the members.</td>
</tr>
</tbody>
</table>

### Property Grid

The following keyboard shortcuts are supported in the Property Grid.
Table 81  Property Grid — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses through the properties.</td>
</tr>
<tr>
<td>F2</td>
<td>Edits any property value.</td>
</tr>
<tr>
<td>Enter</td>
<td>Selects an item in the drop-down menu.</td>
</tr>
<tr>
<td>Space bar</td>
<td>Selects or deselects a check box.</td>
</tr>
</tbody>
</table>

Security Group/User Selection Dialog Box

The following keyboard shortcuts are supported in the Security Group/User Selection dialog box (accessed via the Property Grid—System category).

Table 82  Security Group/User Selection — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down in the drop-down menu or if there are multiple users/groups in the list, traverses up or down the user/group list.</td>
</tr>
<tr>
<td>Enter</td>
<td>Selects an item in the drop-down menu.</td>
</tr>
</tbody>
</table>

Alias Dialog Box

The following keyboard shortcuts are supported in the Alias dialog box (accessed via the Property Grid).

Table 83  Alias — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverse through the aliases.</td>
</tr>
<tr>
<td>F2</td>
<td>Edits the alias.</td>
</tr>
</tbody>
</table>

Import Dimensions Dialog Box

The following keyboard shortcuts are supported in the Import Dimensions dialog box.
Table 84  Import Dimensions — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down the import profiles list.</td>
</tr>
</tbody>
</table>

Create Import Profile — Map Dimensions Screen

The following keyboard shortcuts are supported in the Import Profile—Map Dimensions screen.

Table 85  Map Dimensions — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Space bar</td>
<td>Select or deselect a check box.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Navigates up or down drop-down lists.</td>
</tr>
</tbody>
</table>

Create Import Profile — Dimension Mapping Screen

The following keyboard shortcuts are supported in the Import Profile—Import Dimension Mapping screen.

Table 86  Import Dimension Mapping — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Navigates up or down the dimension mapping or mapping options (properties list).</td>
</tr>
<tr>
<td>Arrow right or left</td>
<td>Navigates left or right through the properties listed in the mapping options.</td>
</tr>
<tr>
<td>F2</td>
<td>Activates the drop-down list shown in the Mapping Options, Shared Library column.</td>
</tr>
<tr>
<td>Space bar</td>
<td>Selects or deselects a check box.</td>
</tr>
</tbody>
</table>

Application Library

The following keyboard shortcuts are supported in the Application Library.

Table 87  Application Library Keyboard Shortcuts

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Shift+Z</td>
<td>Launch the application wizard to create a new application</td>
</tr>
<tr>
<td>Ctrl+Shift+F</td>
<td>Create a new folder in the Application Library</td>
</tr>
</tbody>
</table>
### Application Library Panes

The following keyboard shortcuts are supported to view panes in the Application Library.

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Alt+1</td>
<td>Display the view pane. (The view pane must always display.)</td>
</tr>
<tr>
<td>Ctrl+Shift+1</td>
<td>View icons</td>
</tr>
<tr>
<td>Ctrl+Shift+L</td>
<td>View details</td>
</tr>
<tr>
<td>Ctrl+Alt+F</td>
<td>Filter applications</td>
</tr>
<tr>
<td>Ctrl+Alt+C</td>
<td>Clear filter criteria</td>
</tr>
<tr>
<td>Ctrl+Shift+R</td>
<td>Refresh</td>
</tr>
<tr>
<td>Ctrl+Alt+M</td>
<td>Manage Planning data sources</td>
</tr>
<tr>
<td>Ctrl+Shift+M</td>
<td>Manage taskflows</td>
</tr>
<tr>
<td>Ctrl+Shift+T</td>
<td>View taskflow status</td>
</tr>
</tbody>
</table>

### Find Applications Dialog Box

The following keyboard shortcuts are supported in the Find Applications dialog box.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down the drop-down menu or the applications list.</td>
</tr>
</tbody>
</table>
Application Creation Wizard

The following keyboard shortcuts are supported in the Application Creation Wizard.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom for all application types, except Planning.</td>
</tr>
<tr>
<td></td>
<td>For Planning applications, use the tab key to traverse from top to bottom. If the Auto Create Local Dimensions check box is selected, the Tab order traverses from top to bottom, moving to the Next button, and so on. Then, after traversing back to the top of the screen and through the application information, pressing the Tab key continues through the Planning and Calendar options.</td>
</tr>
<tr>
<td></td>
<td>Application Settings screen:</td>
</tr>
<tr>
<td></td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Space bar</td>
<td>Selects or deselects a check box.</td>
</tr>
</tbody>
</table>

**Application Type Page**

| Ctrl+1      | Selects the content pane, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User’s Guide. |
| Ctrl+2      | Selects Application Information area of the page.                      |
| Ctrl+3      | For Planning applications, selects the Planning area of the page.       |
| Ctrl+4      | For Planning applications, selects the Calendar area of the page.       |
| Ctrl+F7     | Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box. |

**Dimension Selection Page**

| Ctrl+1      | Selects the content pane, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User’s Guide. |
| Ctrl+F7     | Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box. |

**Application Settings Page**

| Ctrl+1      | Selects the content pane, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User’s Guide. |
| Ctrl+2      | Selects the Application pane.                                          |
| Ctrl+3      | Selects the Property Grid or Member Find pane.                         |
Comparing Applications

The following keyboard shortcuts are supported in the Application Compare feature.

Table 91  Application Compare — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+4</td>
<td>Selects the Validation area, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User's Guide.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+Up</td>
<td>Increases the lower (details) pane size and the split pane moves up.</td>
</tr>
<tr>
<td>Shift+Down</td>
<td>Decreases the lower (details) pane size and the split pane moves down.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of selected application, dimension, member, or property in the Property Grid.</td>
</tr>
</tbody>
</table>

Data Flow

The following keyboard shortcuts are supported in the Data Flow feature.

Table 92  Data Flow — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects the Dimension Compare Results pane.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the Application Compare Summary pane.</td>
</tr>
<tr>
<td>Ctrl+3</td>
<td>Selects the Property Compare Results pane.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of the selected item in the Dimension Compare Results list.</td>
</tr>
</tbody>
</table>
### Application Upgrade Wizard

The following keyboard shortcuts are supported in the Application Upgrade Wizard.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of the selected application or link.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses through the applications available for upgrade.</td>
</tr>
</tbody>
</table>

### Manage Planning Data Sources

The following keyboard shortcuts are supported on the Data Source page.

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects Data Sources in the upper pane, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User’s Guide.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the lower (details) pane.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+Up arrow</td>
<td>Increases the lower (details) pane size and the split pane moves up.</td>
</tr>
<tr>
<td>Shift+Down arrow</td>
<td>Decreases the lower (details) pane size and the split pane moves down.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of the selected data source.</td>
</tr>
</tbody>
</table>

### Job Console

The following keyboard shortcuts are supported in the Job Console.

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Shift+Z</td>
<td>Launch the application wizard to create a new application</td>
</tr>
<tr>
<td>Ctrl+Shift+L</td>
<td>View details</td>
</tr>
</tbody>
</table>
Table 96  Job Console — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects list of jobs in the upper pane.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the lower (job details) pane, starting with the Summary area.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+Up arrow</td>
<td>Increases the lower (job details) pane size and the split pane moves up.</td>
</tr>
<tr>
<td>Shift+Down arrow</td>
<td>Decreases the lower (job details) pane size and the split pane moves down.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of selected item in the Job Console.</td>
</tr>
<tr>
<td>Tab</td>
<td>Traverses from left to right and top and bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down the list of jobs.</td>
</tr>
<tr>
<td>Right Arrow</td>
<td>Navigates through the list of jobs.</td>
</tr>
<tr>
<td>Enter</td>
<td>Opens an attachment, after the focus is on the hyperlink.</td>
</tr>
</tbody>
</table>

Data Synchronization

The following keyboard shortcuts are supported in the Data Synchronization.

Table 97  Data Synchronization Keyboard Shortcuts

<table>
<thead>
<tr>
<th>Key</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+Shift+Z</td>
<td>Launch the application wizard to create a new application</td>
</tr>
<tr>
<td>Ctrl+Shift+G</td>
<td>Create new synchronization</td>
</tr>
<tr>
<td>Ctrl+Alt+T</td>
<td>Create new mapping table</td>
</tr>
<tr>
<td>Ctrl+Alt+X</td>
<td>Define an external file mapping</td>
</tr>
</tbody>
</table>
The following accessibility keys are available to navigate the Data Synchronizer.

**Table 98  Data Synchronization — Accessibility Keys**

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects list of synchronizations in the upper pane, and on selection, if Screen Reader Support is enabled, the screen reader reads the description of the page. For information on enabling screen reader support, see the Oracle Enterprise Performance Management Workspace, Fusion Edition User’s Guide.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the lower (property details) pane, starting with the Summary area.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+Up arrow</td>
<td>Increases the lower (synchronization details) pane size and the split pane moves up.</td>
</tr>
<tr>
<td>Shift+Down arrow</td>
<td>Decreases the lower (synchronization details) pane size and the split pane moves down.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of the selected item in the Data Synchronizer.</td>
</tr>
<tr>
<td>Tab</td>
<td>Traverses left to right and top to bottom.</td>
</tr>
</tbody>
</table>

**New Synchronization**

The following keyboard shortcuts are supported in the New Synchronization wizard.

**Table 99  New Synchronization Wizard — Accessibility Keys**

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Traverses left to right and top to bottom.</td>
</tr>
<tr>
<td>Arrow up or down</td>
<td>Traverses up or down the source types, available sources, or destinations.</td>
</tr>
</tbody>
</table>
Data Synchronization — Dimension Mapping

The following keyboard shortcuts are supported in the Data Synchronization—Dimension Mapping.

Table 100  Data Synchronization Dimension Mapping — Accessibility Keys

<table>
<thead>
<tr>
<th>Keys</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl+1</td>
<td>Selects Dimension Mappings in the upper pane.</td>
</tr>
<tr>
<td>Ctrl+2</td>
<td>Selects the lower (details) pane.</td>
</tr>
<tr>
<td>Ctrl+F7</td>
<td>Switches the focus to the topmost component. For example, if a dialog box is not in focus, this keyboard shortcut switches the focus to the dialog box.</td>
</tr>
<tr>
<td>Shift+Up arrow</td>
<td>Increases the lower (details) pane size and the split pane moves up.</td>
</tr>
<tr>
<td>Shift+Down arrow</td>
<td>Decreases the lower (details) pane size and the split pane moves down.</td>
</tr>
<tr>
<td>Shift+F10</td>
<td>Displays the shortcut menu of the selected item on the Dimension Mapping page.</td>
</tr>
</tbody>
</table>
Glossary

!  See bang character (!).

#MISSING  See missing data (#MISSING).

access permissions  A set of operations that a user can perform on a resource.

accessor  Input and output data specifications for data mining algorithms.

account blocking  The process by which accounts accept input data in the consolidated file. Blocked accounts do not receive their value through the additive consolidation process.

account eliminations  Accounts which have their values set to zero in the consolidated file during consolidation.

account type  How an account’s value flows over time, and its sign behavior. Account type options can include expense, income, asset, liability, and equity.

accountability map  A visual, hierarchical representation of the responsibility, reporting, and dependency structure of the accountability teams (also known as critical business areas) in an organization.

accounts dimension  A dimension type that makes accounting intelligence available. Only one dimension can be defined as Accounts.

active service  A service whose Run Type is set to Start rather than Hold.

activity-level authorization  Defines user access to applications and the types of activities they can perform on applications, independent of the data that will be operated on.

ad hoc report  An online analytical query created on-the-fly by an end user.

adapter  Software that enables a program to integrate with data and metadata from target and source systems.

adaptive states  Interactive Reporting Web Client level of permission.

adjustment  See journal entry (JE).

Advanced Relational Access  The integration of a relational database with an Essbase multidimensional database so that all data remains in the relational database and is mapped to summary-level data residing in the Essbase database.

agent  An Essbase server process that starts and stops applications and databases, manages connections from users, and handles user-access security. The agent is referred to as ESSBASE.EXE.

aggregate cell  A cell comprising several cells. For example, a data cell that uses Children(Year) expands to four cells containing Quarter 1, Quarter 2, Quarter 3, and Quarter 4 data.

aggregate function  A type of function, such as sum or calculation of an average, that summarizes or performs analysis on data.

aggregate limit  A limit placed on an aggregated request line item or aggregated metatopic item.

aggregate storage database  The database storage model designed to support large-scale, sparsely distributed data which is categorized into many, potentially large dimensions. Upper level members and formulas are dynamically calculated, and selected data values are aggregated and stored, typically with improvements in overall aggregation time.

aggregate view  A collection of aggregate cells based on the levels of the members within each dimension. To reduce calculation time, values are pre-aggregated and stored as aggregate views. Retrievals start from aggregate view totals and add up from there.
aggregation  The process of rolling up and storing values in an aggregate storage database; the stored result of the aggregation process.

aggregation script  In aggregate storage databases only, a file that defines a selection of aggregate views to be built into an aggregation.

alias  An alternative name. For example, for a more easily identifiable column descriptor you can display the alias instead of the member name.

alias table  A table that contains alternate names for members.

alternate hierarchy  A hierarchy of shared members. An alternate hierarchy is based upon an existing hierarchy in a database outline, but has alternate levels in the dimension. An alternate hierarchy allows the same data to be seen from different points of view.

ancestor  A branch member that has members below it. For example, the members Qtr2 and 2006 are ancestors of the member April.

appendor  A Log4j term for destination.

application  (1) A software program designed to run a specific task or group of tasks such as a spreadsheet program or database management system. (2) A related set of dimensions and dimension members that are used to meet a specific set of analytical and/or reporting requirements.

application currency  The default reporting currency for the application.

area  A predefined set of members and values that makes up a partition.

arithmetic data load  A data load that performs operations on values in the database, such as adding 10 to each value.

artifact  An individual application or repository item; for example, scripts, forms, rules files, Interactive Reporting documents, and financial reports. Also known as an object.

assemblies  Installation files for EPM System products or components.

asset account  An account type that stores values that represent a company’s assets.

assignment  The association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow within Profitability and Cost Management.

attribute  Characteristic of a dimension member. For example, Employee dimension members may have attributes of Name, Age, or Address. Product dimension members can have several attributes, such as a size and flavor.

attribute association  A relationship in a database outline whereby a member in an attribute dimension describes a characteristic of a member of its base dimension. For example, if product 100-10 has a grape flavor, the product 100-10 has the Flavor attribute association of grape. Thus, the 100-10 member of the Product dimension is associated with the Grape member of the Flavor attribute dimension.

Attribute Calculations dimension  A system-defined dimension that performs these calculation operations on groups of members: Sum, Count, Avg, Min, and Max. This dimension is calculated dynamically and is not visible in the database outline. For example, using the Avg member, you can calculate the average sales value for Red products in New York in January.

attribute dimension  A type of dimension that enables analysis based on the attributes or qualities of dimension members.

attribute reporting  A reporting process based on the attributes of the base dimension members. See also base dimension.

attribute type  A text, numeric, Boolean, date, or linked attribute type that enables different functions for grouping, selecting, or calculating data. For example, because the Ounces attribute dimension has the type numeric, the number of ounces specified as the attribute of each product can be used to calculate the profit per ounce for that product.

authentication  Verification of identity as a security measure. Authentication is typically based on a user name and password. Passwords and digital signatures are forms of authentication.

authentication service  A core service that manages one authentication system.

auto-reversing journal  A journal for entering adjustments that you want to reverse in the next period.
automated stage  A stage that does not require human intervention, for example, a data load.

axis  (1) A straight line that passes through a graphic used for measurement and categorization. (2) A report aspect used to arrange and relate multidimensional data, such as filters, pages, rows, and columns. For example, for a data query in Simple Basic, an axis can define columns for values for Qtr1, Qtr2, Qtr3, and Qtr4. Row data would be retrieved with totals in the following hierarchy: Market, Product.

backup  A duplicate copy of an application instance.

balance account  An account type that stores unsigned values that relate to a particular point in time.

balanced journal  A journal in which the total debits equal the total credits.

bang character (!)  A character that terminates a series of report commands and requests information from the database. A report script must be terminated with a bang character; several bang characters can be used within a report script.

bar chart  A chart that can consist of one to 50 data sets, with any number of values assigned to each data set. Data sets are displayed as groups of corresponding bars, stacked bars, or individual bars in separate rows.

base currency  The currency in which daily business transactions are performed.

base dimension  A standard dimension that is associated with one or more attribute dimensions. For example, assuming products have flavors, the Product dimension is the base dimension for the Flavors attribute dimension.

base entity  An entity at the bottom of the organization structure that does not own other entities.

batch calculation  Any calculation on a database that is done in batch; for example, a calculation script or a full database calculation. Dynamic calculations are not considered to be batch calculations.

batch file  An operating system file that can call multiple ESSCMD scripts and run multiple sessions of ESSCMD. On Windows-based systems, batch files have BAT file extensions. On UNIX, batch files are written as a shell script.

batch loader  An FDM component that enables the processing of multiple files.

batch POV  A collection of all dimensions on the user POV of every report and book in the batch. While scheduling the batch, you can set the members selected on the batch POV.

batch processing mode  A method of using ESSCMD to write a batch or script file that can be used to automate routine server maintenance and diagnostic tasks. ESSCMD script files can execute multiple commands and can be run from the operating system command line or from within operating system batch files. Batch files can be used to call multiple ESSCMD scripts or run multiple instances of ESSCMD.

block  The primary storage unit which is a multidimensional array representing the cells of all dense dimensions.

block storage database  The Essbase database storage model categorizing and storing data based on the sparsity of data values defined in sparse dimensions. Data values are stored in blocks, which exist only for sparse dimension members for which there are values.

Blocked Account  An account that you do not want calculated in the consolidated file because you want to enter it manually.

book  A container that holds a group of similar Financial Reporting documents. Books may specify dimension sections or dimension changes.

book POV  The dimension members for which a book is run.

bookmark  A link to a reporting document or a Web site, displayed on a personal page of a user. The two types of bookmarks are My Bookmarks and image bookmarks.

bounding rectangle  The required perimeter that encapsulates the Interactive Reporting document content when embedding Interactive Reporting document sections in a personal page, specified in pixels for height and width or row per page.

broadcast message  A simple text message sent by an administrator to a user who is logged on to a Planning application. The message displays information to the user such as system availability, notification of application refresh, or application backups.

budget administrator  A person responsible for setting up, configuring, maintaining, and controlling an application. Has all application privileges and data access permissions.
**build method** A method used to modify database outlines. Choice of a build method is based on the format of data in data source files.

**business process** A set of activities that collectively accomplish a business objective.

**business rules** Logical expressions or formulas that are created within an application to produce a desired set of resulting values.

**cache** A buffer in memory that holds data temporarily.

**calc script** A set of commands that define how a database is consolidated or aggregated. A calculation script may also contain commands that specify allocation and other calculation rules separate from the consolidation process.

**calculated member in MaxL DML** A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

**calculation** The process of aggregating data, or of running a calculation script on a database.

**Calculation Manager** A module of Performance Management Architect that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment.

**calculation status** A consolidation status that indicates that some values or formula calculations have changed. You must reconsolidate to get the correct values for the affected entity.

**calendar** User-defined time periods and their relationship to each other. Q1, Q2, Q3, and Q4 comprise a calendar or fiscal year.

**cascade** The process of creating multiple reports for a subset of member values.

**Catalog pane** Displays a list of elements available to the active section. If Query is the active section, a list of database tables is displayed. If Pivot is the active section, a list of results columns is displayed. If Dashboard is the active section, a list of embeddable sections, graphic tools, and control tools are displayed.

**categories** Groupings by which data is organized. For example, Month.

**cause and effect map** Depicts how the elements that form your corporate strategy relate and how they work together to meet your organization’s strategic goals. A Cause and Effect map tab is automatically created for each Strategy map.

**CDF** See custom-defined function (CDF).

**CDM** See custom-defined macro (CDM).

**cell** (1) The data value at the intersection of dimensions in a multidimensional database; the intersection of a row and a column in a worksheet. (2) A logical group of nodes belonging to one administrative domain.

**cell note** A text annotation for a cell in an Essbase database. Cell notes are a type of LRO.

**CHANGED status** Consolidation status that indicates data for an entity has changed.

**chart** A graphical representation of spreadsheet data. The visual nature expedites analysis, color-coding, and visual cues that aid comparisons.

**chart template** A template that defines the metrics to display in Workspace charts.

**child** A member with a parent above it in the database outline.

**choice list** A list of members that a report designer can specify for each dimension when defining the report’s point of view. A user who wants to change the point of view for a dimension that uses a choice list can select only the members specified in that defined member list or those members that meet the criteria defined in the function for the dynamic list.

**clean block** A data block that where the database is fully calculated, if a calculation script calculates all dimensions at once, or if the SET CLEARUPDATESTATUS command is used in a calculation script.

**cluster** An array of servers or databases that behave as a single resource which share task loads and provide failover support; eliminates one server or database as a single point of failure in a system.

**clustered bar charts** Charts in which categories are viewed side-by-side; useful for side-by-side category analysis; used only with vertical bar charts.
code page  A mapping of bit combinations to a set of text characters. Different code pages support different sets of characters. Each computer contains a code page setting for the character set requirements of the language of the computer user. In the context of this document, code pages map characters to bit combinations for non-Unicode encodings. See also encoding.

column  A vertical display of information in a grid or table. A column can contain data from one field, derived data from a calculation, or textual information.

committed access  An Essbase Kernel Isolation Level setting that affects how Essbase handles transactions. Under committed access, concurrent transactions hold long-term write locks and yield predictable results.

computed item  A virtual column (as opposed to a column that is physically stored in the database or cube) that can be calculated by the database during a query, or by Interactive Reporting Studio in the Results section. Computed items are calculations of data based on functions, data items, and operators provided in the dialog box and can be included in reports or reused to calculate other data.

configuration file  The security platform relies on XML documents to be configured by the product administrator or software installer. The XML document must be modified to indicate meaningful values for properties, specifying locations and attributes pertaining to the corporate authentication scenario.

connection file  See Interactive Reporting connection file (.oce).

consolidated file (Parent)  A file into which all of the business unit files are consolidated; contains the definition of the consolidation.

consolidation  The process of aggregating data from dependent entities to parent entities. For example, if the dimension Year consists of the members Qtr1, Qtr2, Qtr3, and Qtr4, its consolidation is Year.

consolidation file (*.cns)  The consolidation file is a graphical interface that enables you to add, delete or move Strategic Finance files in the consolidation process using either a Chart or Tree view. It also enables you to define and modify the consolidation.

consolidation rule  Identifies the rule that is executed during the consolidation of the node of the hierarchy. This rule can contain customer specific formulas appropriate for the correct consolidation of parent balances. Elimination processing can be controlled within these rules.

content  Information stored in the repository for any type of file.

content browser  A Component that allows users to Browse and select content to be placed in a Workspace Page.

context variable  A variable that is defined for a particular task flow to identify the context of the taskflow instance.

correlation  The value added to a parent from a child entity. Each child has a contribution to its parent.

correlation group  Used in FDM to maintain and organize certification and assessment information, especially helpful for meeting Sarbanes-Oxley requirements.

correlation rate  See exchange rate.

cookie  A segment of data placed on your computer by a Web site.

correlated subqueries  Subqueries that are evaluated once for every row in the parent query; created by joining a topic item in the subquery with a topic in the parent query.

critical business area (CBA)  An individual or a group organized into a division, region, plant, cost center, profit center, project team, or process; also called accountability team or business area.

critical success factor (CSF)  A capability that must be established and sustained to achieve a strategic objective; owned by a strategic objective or a critical process and is a parent to one or more actions.

crosstab reporting  Categorizes and summarizes data in table format. The table cells contain summaries of the data that fit within the intersecting categories. For example, a crosstab report of product sales information could show size attributes, such as Small and Large, as column headings and color attributes, such as Blue and Yellow, as row headings. The cell in the table where Large and Blue intersect could contain the total sales of all Blue products that are sized Large.

cube  A block of data that contains three or more dimensions. An Essbase database is a cube.
cube deployment  In Essbase Studio, the process of setting load options for a model to build an outline and load data into an Essbase application and database.

cube schema  In Essbase Studio, the metadata elements, such as measures and hierarchies, representing the logical model of a cube.

currency conversion  A process that converts currency values in a database from one currency into another. For example, to convert one U.S. dollar into the European euro, the exchange rate (for example, 0.923702) is multiplied with the dollar (1 * 0.923702). After conversion, the European euro amount is .92.

Currency Overrides  In any input period, the selected input method can be overridden to enable input of that period’s value as Default Currency/Items. To override the input method, enter a pound sign (#) either before or after the number.

currency partition  A dimension type that separates local currency members from a base currency, as defined in an application. Identifies currency types, such as Actual, Budget, and Forecast.

custom calendar  Any calendar created by an administrator.

custom dimension  A dimension created and defined by users. Channel, product, department, project, or region could be custom dimensions.

custom property  A property of a dimension or dimension member that is created by a user.

custom report  A complex report from the Design Report module, composed of any combination of components.

custom-defined function (CDF)  Essbase calculation functions developed in Java and added to the standard Essbase calculation scripting language using MaxL. See also custom-defined macro (CDM).

custom-defined macro (CDM)  Essbase macros written with Essbase calculator functions and special macro functions. Custom-defined macros use an internal Essbase macro language that enables the combination of calculation functions and they operate on multiple input parameters. See also custom-defined function (CDF).

cycle through  To perform multiple passes through a database while calculating it.

dashboard  A collection of metrics and indicators that provide an interactive summary of your business. Dashboards enable you to build and deploy analytic applications.

data cache  A buffer in memory that holds uncompressed data blocks.

data cell  See cell.

data file cache  A buffer in memory that holds compressed data (PAG) files.

data form  A grid display that enables users to enter data into the database from an interface such as a Web browser, and to view and analyze data or related text. Certain dimension member values are fixed, giving users a specific view into the data.

data function  That computes aggregate values, including averages, maximums, counts, and other statistics, that summarize groupings of data.

data load location  In FDM, a reporting unit responsible for submitting source data into the target system. Typically, there is one FDM data load location for each source file loaded to the target system.

data load rules  A set of criteria that determines how to load data from a text-based file, a spreadsheet, or a relational data set into a database.

data lock  Prevents changes to data according to specified criteria, such as period or scenario.

data mining  The process of searching through an Essbase database for hidden relationships and patterns in a large amount of data.

data model  A representation of a subset of database tables.

data value  See cell.

database connection  File that stores definitions and properties used to connect to data sources and enables database references to be portable and widely used.
**date measure** In Essbase, a member tagged as “Date” in the dimension where measures are represented. The cell values are displayed as formatted dates. Dates as measures can be useful for types of analysis that are difficult to represent using the Time dimension. For example, an application may need to track acquisition dates for a series of capital assets, but the acquisition dates span too large a period to allow for feasible Time dimension modeling. See also typed measure.

**Default Currency Units** Define the unit scale of data. For example, if you select to define your analysis in Thousands, and enter “10”, this is interpreted as “10,000”.

**dense dimension** In block storage databases, a dimension likely to contain data for every combination of dimension members. For example, time dimensions are often dense because they can contain all combinations of all members. Contrast with sparse dimension.

**dependent entity** An entity that is owned by another entity in the organization.

**derived text measure** In Essbase Studio, a text measure whose values are governed by a predefined rule expressed as a range. For example, a derived text measure, called "Sales Performance Index," based on a measure Sales, could consist of the values "High," "Medium," and "Low." This derived text measure is defined to display "High," "Medium," and "Low" depending on the range in which the corresponding sales values fall. See also text measure.

**descendant** Any member below a parent in the database outline. In a dimension that includes years, quarters, and months, the members Qtr2 and April are descendants of the member Year.

**Design Report** An interface in Web Analysis Studio for designing custom reports, from a library of components.

**destination** Within a Profitability and Cost Management assignment, the destination is the receiving point for allocated values.

**destination currency** The currency to which balances are converted. You enter exchange rates and convert from the source currency to the destination currency. For example, when you convert from EUR to USD, the destination currency is USD.

**detail chart** A chart that provides the detailed information that you see in a Summary chart. Detail charts appear in the Investigate Section in columns below the Summary charts. If the Summary chart shows a Pie chart, then the Detail charts below represent each piece of the pie.

**dimension** A data category used to organize business data for retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. For example, a Year dimension often includes members for each time period, such as quarters and months.

**dimension build** The process of adding dimensions and members to an Essbase outline.

**dimension build rules** Specifications, similar to data load rules, that Essbase uses to modify an outline. The modification is based on data in an external data source file.

**dimension tab** In the Pivot section, the tab that enables you to pivot data between rows and columns.

**dimension table** (1) A table that includes numerous attributes about a specific business process. (2) In Essbase Integration Services, a container in the OLAP model for one or more relational tables that define a potential dimension in Essbase.

**dimension type** A dimension property that enables the use of predefined functionality. Dimensions tagged as time have a predefined calendar functionality.

**dimensionality** In MaxL DML, the represented dimensions (and the order in which they are represented) in a set. For example, the following set consists of two tuples of the same dimensionality because they both reflect the dimensions (Region, Year): { (West, Feb), (East, Mar) }

**direct rate** A currency rate that you enter in the exchange rate table. The direct rate is used for currency conversion. For example, to convert balances from JPY to USD, In the exchange rate table, enter a rate for the period/scenario where the source currency is JPY and the destination currency is USD.

**dirty block** A data block containing cells that have been changed since the last calculation. Upper level blocks are marked as dirty if their child blocks are dirty (that is, they have been updated).

**display type** One of three Web Analysis formats saved to the repository: spreadsheet, chart, and pinboard.
dog-ear  The flipped page corner in the upper right corner of
the chart header area.

domain  In data mining, a variable representing a range of
navigation within data.

drill-down  Navigation through the query result set using the
dimensional hierarchy. Drilling down moves the user
perspective from aggregated data to detail. For example,
drilling down can reveal hierarchical relationships between
years and quarters or quarters and months.

drill-through  The navigation from a value in one data source
to corresponding data in another source.

driver  A driver is an allocation method that describes the
mathematical relationship between the sources that utilize
the driver, and the destinations to which those sources
allocate cost or revenue.

duplicate alias name  A name that occurs more than once in
an alias table and that can be associated with more than one
member in a database outline. Duplicate alias names can be
used with duplicate member outlines only.

duplicate member name  The multiple occurrence of a member
name in a database, with each occurrence representing a
different member. For example, a database has two
members named “New York.” One member represents New
York state and the other member represents New York city.

duplicate member outline  A database outline containing
duplicate member names.

Dynamic Calc and Store members  A member in a block storage
outline that Essbase calculates only upon the first retrieval
of the value. Essbase then stores the calculated value in the
database. Subsequent retrievals do not require calculating.

Dynamic Calc members  A member in a block storage outline
that Essbase calculates only at retrieval time. Essbase
discards calculated values after completing the retrieval
request.

dynamic calculation  In Essbase, a calculation that occurs only
when you retrieve data on a member that is tagged as
Dynamic Calc or Dynamic Calc and Store. The member’s
values are calculated at retrieval time instead of being
precalculated during batch calculation.

dynamic hierarchy  In aggregate storage database outlines
only, a hierarchy in which members are calculated at
retrieval time.

dynamic member list  A system-created named member set
that is based on user-defined criteria. The list is refreshed
automatically whenever it is referenced in the application.
As dimension members are added and deleted, the list
automatically reapplies the criteria to reflect the changes.

dynamic reference  A pointer in the rules file to header records
in a data source.

dynamic report  A report containing data that is updated when
you run the report.

Dynamic Time Series  A process that performs period-to-date
reporting in block storage databases.

dynamic view account  An account type indicating that
account values are calculated dynamically from the data that
is displayed.

Eliminated Account  An account that does not appear in the
consolidated file.

elimination  The process of zeroing out (eliminating)
transactions between entities within an organization.

employee  A user responsible for, or associated with, specific
business objects. Employees need not work for an
organization; for example, they can be consultants.
Employees must be associated with user accounts for
authorization purposes.

encoding  A method for mapping bit combinations to
characters for creating, storing, and displaying text. Each
encoding has a name; for example, UTF-8. Within an
encoding, each character maps to a specific bit combination;
for example, in UTF-8, uppercase A maps to HEX41. See
also code page and locale.

ending period  A period enabling you to adjust the date range
in a chart. For example, an ending period of “month”,
produces a chart showing information through the end of
the current month.

Enterprise View  An Administration Services feature that
enables management of the Essbase environment from a
graphical tree view. From Enterprise View, you can operate
directly on Essbase artifacts.

entity  A dimension representing organizational units.
Examples: divisions, subsidiaries, plants, regions, products,
or other financial reporting units.
Equity Beta The riskiness of a stock, measured by the variance between its return and the market return, indicated by an index called “beta”. For example, if a stock’s return normally moves up or down 1.2% when the market moves up or down 1%, the stock has a beta of 1.2.

essbase.cfg An optional configuration file for Essbase. Administrators may edit this file to customize Essbase Server functionality. Some configuration settings may also be used with Essbase clients to override Essbase Server settings.

EssCell A function entered into a cell in Essbase Spreadsheet Add-in to retrieve a value representing an intersection of specific Essbase database members.

ESSCMD A command-line interface for performing Essbase operations interactively or through batch script files.

ESSLANG The Essbase environment variable that defines the encoding used to interpret text characters. See also encoding.

ESSMSH See MaxL Shell.

exceptions Values that satisfy predefined conditions. You can define formatting indicators or notify subscribing users when exceptions are generated.

exchange rate A numeric value for converting one currency to another. For example, to convert 1 USD into EUR, the exchange rate of 0.8936 is multiplied with the U.S. dollar. The European euro equivalent of $1 is 0.8936.

exchange rate type An identifier for an exchange rate. Different rate types are used because there may be multiple rates for a period and year. Users traditionally define rates at period end for the average rate of the period and for the end of the period. Additional rate types are historical rates, budget rates, forecast rates, and so on. A rate type applies to one point in time.

expense account An account that stores periodic and year-to-date values that decrease net worth if they are positive.

Extensible Markup Language (XML) A language comprising a set of tags used to assign attributes to data that can be interpreted between applications according to a schema.

external authentication Logging on to Oracle’s Hyperion applications with user information stored outside the applications, typically in a corporate directory such as MSAD or NTLM.

externally triggered events Non-time-based events for scheduling job runs.

Extract, Transform, and Load (ETL) Data source-specific programs for extracting data and migrating it to applications.

extraction command An Essbase reporting command that handles the selection, orientation, grouping, and ordering of raw data extracted from a database; begins with the less than (<) character.

fact table The central table in a star join schema, characterized by a foreign key and elements drawn from a dimension table. This table typically contains numeric data that can be related to all other tables in the schema.

Favorites gadget Contains links to Reporting and Analysis documents and URLs.

field An item in a data source file to be loaded into an Essbase database.

file delimiter Characters, such as commas or tabs, that separate fields in a data source.

filter A constraint on data sets that restricts values to specific criteria; for example, to exclude certain tables, metadata, or values, or to control access.

flow account An unsigned account that stores periodic and year-to-date values.

folder A file containing other files for the purpose of structuring a hierarchy.

footer Text or images at the bottom of report pages, containing dynamic functions or static text such as page numbers, dates, logos, titles or file names, and author names.

format Visual characteristics of documents or report objects.

format string In Essbase, a method for transforming the way cell values are displayed.

formula A combination of operators, functions, dimension and member names, and numeric constants calculating database members.

frame An area on the desktop. There are two main areas: the navigation and Workspace frames.
**free-form grid** An object for presenting, entering, and integrating data from different sources for dynamic calculations.

**free-form reporting** Creating reports by entering dimension members or report script commands in worksheets.

**function** A routine that returns values or database members.

**gadget** Simple, specialized, lightweight applications that provide easy viewing of EPM content and enable access to core Reporting and Analysis functionality.

**genealogy data** Additional data that is optionally generated after allocation calculations. This data enables reporting on all cost or revenue flows from start to finish through all allocation steps.

**generation** A layer in a hierarchical tree structure that defines member relationships in a database. Generations are ordered incrementally from the top member of the dimension (generation 1) down to the child members. Use the unique generation name to identify a layer in the hierarchical tree structure.

**generic jobs** Non-SQR Production Reporting or non-Interactive Reporting jobs.

**global report command** A command in a running report script that is effective until replaced by another global command or the file ends.

**grid POV** A means for specifying dimension members on a grid without placing dimensions in rows, columns, or page intersections. A report designer can set POV values at the grid level, preventing user POVs from affecting the grid. If a dimension has one grid value, you put the dimension into the grid POV instead of the row, column, or page.

**group** A container for assigning similar access permissions to multiple users.

**GUI** Graphical user interface

**head up display** A mode that shows your loaded Smart Space desktop including the background image above your Windows desktop.

**highlighting** Depending on your configuration, chart cells or ZoomChart details may be highlighted, indicating value status: red (bad), yellow (warning), or green (good).

**Historical Average** An average for an account over a number of historical periods.

**holding company** An entity that is part of a legal entity group, with direct or indirect investments in all entities in the group.

**host** A server on which applications and services are installed.

**host properties** Properties pertaining to a host, or if the host has multiple Install_Homes, to an Install_Home. The host properties are configured from the CMC.

**Hybrid Analysis** An analysis mapping low-level data stored in a relational database to summary-level data stored in Essbase, combining the mass scalability of relational systems with multidimensional data.

**hyperlink** A link to a file, Web page, or an intranet HTML page.

**Hypertext Markup Language (HTML)** A programming language specifying how Web browsers display data.

**identity** A unique identification for a user or group in external authentication.

**image bookmarks** Graphic links to Web pages or repository items.

**IMPACTED status** Indicates changes in child entities consolidating into parent entities.

**implied share** A member with one or more children, but only one is consolidated, so the parent and child share a value.

**import format** In FDM, defines the structure of the source file which enables the loading of a source data file to an FDM data load location.

**inactive group** A group for which an administrator has deactivated system access.

**inactive service** A service suspended from operating.

**INACTIVE status** Indicates entities deactivated from consolidation for the current period.

**inactive user** A user whose account has been deactivated by an administrator.

**income account** An account storing periodic and year-to-date values that, if positive, increase net worth.

**index** (1) A method where Essbase uses sparse-data combinations to retrieve data in block storage databases. (2) The index file.
index cache A buffer containing index pages.

index entry A pointer to an intersection of sparse dimensions. Index entries point to data blocks on disk and use offsets to locate cells.

index file An Essbase file storing block storage data retrieval information, residing on disk, and containing index pages.

index page A subdivision in an index file. Contains pointers to data blocks.

input data Data loaded from a source rather than calculated.

Install_Home A variable for the directory where EPM System products are installed. Refers to one instance of an EPM System product when multiple applications are installed on the same computer.

integration Process that is run to move data between EPM System products using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and enable the data movements to be grouped, ordered, and scheduled.

intelligent calculation A calculation method tracking updated data blocks since the last calculation.

Interactive Reporting connection file (.oce) Files encapsulating database connection information, including: the database API (ODBC, SQL*Net, etc.), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection files (.oce).

intercompany elimination See elimination.

intercompany matching The process of comparing balances for pairs of intercompany accounts within an application. Intercompany receivables are compared to intercompany payables for matches. Matching accounts are used to eliminate intercompany transactions from an organization’s consolidated totals.

intercompany matching report A report that compares intercompany account balances and indicates if the accounts are in, or out, of balance.

interdimensional irrelevance A situation in which a dimension does not intersect with other dimensions. Because the data in the dimension cannot be accessed from the non-intersecting dimensions, the non-intersecting dimensions are not relevant to that dimension.

intersection A unit of data representing the intersection of dimensions in a multidimensional database; also, a worksheet cell.

intrastage assignment Assignments in the financial flow that are assigned to objects within the same stage.

introspection A deep inspection of a data source to discover hierarchies based on the inherent relationships in the database. Contrast with scraping.

Investigation See drill-through.

isolation level An Essbase Kernel setting that determines the lock and commit behavior of database operations. Choices are: committed access and uncommitted access.

iteration A “pass” of the budget or planning cycle in which the same version of data is revised and promoted.

Java Database Connectivity (JDBC) A client-server communication protocol used by Java based clients and relational databases. The JDBC interface provides a call-level API for SQL-based database access.

job output Files or reports produced from running a job.

jobs Documents with special properties that can be launched to generate output. A job can contain Interactive Reporting, SQR Production Reporting, or generic documents.

join A link between two relational database tables or topics based on common content in a column or row. A join typically occurs between identical or similar items within different tables or topics. For example, a record in the Customer table is joined to a record in the Orders table because the Customer ID value is the same in each table.

journal entry (JE) A set of debit/credit adjustments to account balances for a scenario and period.

JSP Java Server Pages.

KeyContacts gadget Contains a group of Smart Space users and provides access to Smart Space Collaborator. For example, you can have a KeyContacts gadget for your marketing team and another for your development team.

latest A Spreadsheet key word used to extract data values from the member defined as the latest time period.
layer  (1) The horizontal location of members in a hierarchical structure, specified by generation (top down) or level (bottom up). (2) Position of objects relative to other objects. For example, in the Sample Basic database, Qtr1 and Qtr4 are in the same layer, so they are also in the same generation, but in a database with a ragged hierarchy, Qtr1 and Qtr4 might not be in same layer, though they are in the same generation.

layout area  Used to designate an area on a Workspace Page where content can be placed.

legend box  A box containing labels that identify the data categories of a dimension.

level  A layer in a hierarchical tree structure that defines database member relationships. Levels are ordered from the bottom dimension member (level 0) up to the parent members.

level 0 block  A data block for combinations of sparse, level 0 members.

level 0 member  A member that has no children.

liability account  An account type that stores “point in time” balances of a company’s liabilities. Examples of liability accounts include accrued expenses, accounts payable, and long term debt.

life cycle management  The process of managing application information from inception to retirement.

Lifecycle Management Utility  A command-line utility for migrating applications and artifacts.

line chart  A chart that displays one to 50 data sets, each represented by a line. A line chart can display each line stacked on the preceding ones, as represented by an absolute value or a percent.

line item detail  The lowest level of detail in an account.

lineage  The relationship between different metadata elements showing how one metadata element is derived from one or more other metadata elements, ultimately tracing the metadata element to its physical source. In Essbase Studio, a lineage viewer displays the relationships graphically. See also traceability.

link  (1) A reference to a repository object. Links can reference folders, files, shortcuts, and other links. (2) In a task flow, the point where the activity in one stage ends and another begins.

link condition  A logical expression evaluated by the taskflow engine to determine the sequence of launching taskflow stages.

linked data model  Documents that are linked to a master copy in a repository.

linked partition  A shared partition that enables you to use a data cell to link two databases. When a user clicks a linked cell in a worksheet, Essbase opens a new sheet displaying the dimensions in the linked database. The user can then drill down those dimensions.

linked reporting object (LRO)  A cell-based link to an external file such as cell notes, URLs, or files with text, audio, video, or pictures. (Only cell notes are supported for Essbase LROs in Financial Reporting.) Contrast with local report object.

local currency  An input currency type. When an input currency type is not specified, the local currency matches the entity’s base currency.

local report object  A report object that is not linked to a Financial Reporting report object in Explorer. Contrast with linked reporting object (LRO).

local results  A data model's query results. Results can be used in local joins by dragging them into the data model. Local results are displayed in the catalog when requested.

locale  A computer setting that specifies a location’s language, currency and date formatting, data sort order, and the character set encoding used on the computer. Essbase uses only the encoding portion. See also encoding and ESSLANG.

locale header record  A text record at the beginning of some non-Unicode-encoded text files, such as scripts, that identifies the encoding locale.

location alias  A descriptor that identifies a data source. The location alias specifies a server, application, database, user name, and password. Location aliases are set by DBAs at the database level using Administration Services Console, ESSCMD, or the API.

locked  A user-invoked process that prevents users and processes from modifying data.
locked data model  Data models that cannot be modified by a user.

LOCKED status  A consolidation status indicating that an entity contains data that cannot be modified.

Log Analyzer  An Administration Services feature that enables filtering, searching, and analysis of Essbase logs.

logic group  In FDM, contains one or more logic accounts that are generated after a source file is loaded into FDM. Logic accounts are calculated accounts that are derived from the source data.

LRO  See linked reporting object (LRO).

managed server  An application server process running in its own Java Virtual Machine (JVM).

manual stage  A stage that requires human intervention to complete.

Map File  Used to store the definition for sending data to or retrieving data from an external database. Map files have different extensions (.mps to send data; .mpr to retrieve data).

Map Navigator  A feature that displays your current position on a Strategy, Accountability, or Cause and Effect map, indicated by a red outline.

Marginal Tax Rate  Used to calculate the after-tax cost of debt. Represents the tax rate applied to the last earned income dollar (the rate from the highest tax bracket into which income falls) and includes federal, state and local taxes. Based on current level of taxable income and tax bracket, you can predict marginal tax rate.

Market Risk Premium  The additional rate of return paid over the risk-free rate to persuade investors to hold “riskier” investments than government securities. Calculated by subtracting the risk-free rate from the expected market return. These figures should closely model future market conditions.

master data model  An independent data model that is referenced as a source by multiple queries. When used, “Locked Data Model” is displayed in the Query section’s Content pane; the data model is linked to the master data model displayed in the Data Model section, which an administrator may hide.

mathematical operator  A symbol that defines how data is calculated in formulas and outlines. Can be any of the standard mathematical or Boolean operators; for example, +, -, *, /, and %.

Max  The multidimensional database access language for Essbase, consisting of a data definition language (MaxL DDL) and a data manipulation language (MaxL DML). See also MaxL DDL, MaxL DML, and MaxL Shell.

MaxL DDL  Data definition language used by Essbase for batch or interactive system-administration tasks.

MaxL DML  Data manipulation language used in Essbase for data query and extraction.

MaxL Perl Module  A Perl module (essbase.pm) that is part of Essbase MaxL DDL. This module can be added to the Perl package to provide access to Essbase databases from Perl programs.

MaxL Script Editor  A script-development environment in Administration Services Console. MaxL Script Editor is an alternative to using a text editor and the MaxL Shell for administering Essbase with MaxL scripts.

MaxL Shell  An interface for passing MaxL statements to Essbase Server. The MaxL Shell executable file is located in the Essbase bin directory (UNIX: essmsh, Windows: essmsh.exe).

MDX (multidimensional expression)  The language that give instructions to OLE DB for OLAP-compliant databases, as SQL is used for relational databases. When you build the OLAPQuery section’s Outliner, Interactive Reporting Clients translate requests into MDX instructions. When you process the query, MDX is sent to the database server, which returns records that answer your query. See also SQL spreadsheet.

measures  Numeric values in an OLAP database cube that are available for analysis. Measures are margin, cost of goods sold, unit sales, budget amount, and so on. See also fact table.

member  A discrete component within a dimension. A member identifies and differentiates the organization of similar units. For example, a time dimension might include such members as Jan, Feb, and Qtr1.
member list  A named group, system- or user-defined, that references members, functions, or member lists within a dimension.

member load  In Integration Services, the process of adding dimensions and members (without data) to Essbase outlines.

member selection report command  A type of Report Writer command that selects member ranges based on outline relationships, such as sibling, generation, and level.

member-specific report command  A type of Report Writer formatting command that is executed as it is encountered in a report script. The command affects only its associated member and executes the format command before processing the member.

merge  A data load option that clears values only from the accounts specified in the data load file and replaces them with values in the data load file.

metadata  A set of data that defines and describes the properties and attributes of the data stored in a database or used by an application. Examples of metadata are dimension names, member names, properties, time periods, and security.

metadata elements  Metadata derived from data sources and other metadata that is stored and cataloged for Essbase Studio use.

metadata sampling  The process of retrieving a sample of members in a dimension in a drill-down operation.

metadata security  Security set at the member level to restrict users from accessing certain outline members.

metatemplate  In Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.

metric  A numeric measurement computed from business data to help assess business performance and analyze company trends.

migration  The process of copying applications, artifacts, or users from one environment or computer to another; for example, from a testing environment to a production environment.

migration audit report  A report generated from the migration log that provides tracking information for an application migration.

migration definition file (.mdf)  A file that contains migration parameters for an application migration, enabling batch script processing.

migration log  A log file that captures all application migration actions and messages.

migration snapshot  A snapshot of an application migration that is captured in the migration log.

MIME Type  (Multipurpose Internet Mail Extension) An attribute that describes the data format of an item, so that the system knows which application should open the object. A file’s mime type is determined by the file extension or HTTP header. Plug-ins tell browsers what mime types they support and what file extensions correspond to each mime type.

mining attribute  In data mining, a class of values used as a factor in analysis of a set of data.

minireport  A report component that includes layout, content, hyperlinks, and the query or queries to load the report. Each report can include one or more minireports.

minischema  A graphical representation of a subset of tables from a data source that represents a data modeling context.

missing data (#MISSING)  A marker indicating that data in the labeled location does not exist, contains no value, or was never entered or loaded. For example, missing data exists when an account contains data for a previous or future period but not for the current period.

model  (1) In data mining, a collection of an algorithm’s findings about examined data. A model can be applied against a wider data set to generate useful information about that data. (2) A file or content string containing an application-specific representation of data. Models are the basic data managed by Shared Services, of two major types: dimensional and non-dimensional application objects. (3) In Business Modeling, a network of boxes connected to represent and calculate the operational and financial flow through the area being examined.

monetary  A money-related value.
multidimensional database  A method of organizing, storing, and referencing data through three or more dimensions. An individual value is the intersection point for a set of dimensions. Contrast with relational database.

multiload  An FDM feature that allows the simultaneous loading of multiple periods, categories, and locations.

My Workspace Page  A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

named set  In MaxL DML, a set with its logic defined in the optional WITH section of a MaxL DML query. The named set can be referenced multiple times in the query.

native authentication  The process of authenticating a user name and password from within the server or application.

nested column headings  A report column heading format that displays data from multiple dimensions. For example, a column heading that contains Year and Scenario members is a nested column. The nested column heading shows Q1 (from the Year dimension) in the top line of the heading, qualified by Actual and Budget (from the Scenario dimension) in the bottom line of the heading.

NO DATA status  A consolidation status indicating that this entity contains no data for the specified period and account.

non-dimensional model  A Shared Services model type that includes application objects such as security files, member lists, calculation scripts, and Web forms.

non-unique member name  See duplicate member name.

note  Additional information associated with a box, measure, scorecard or map element.

Notifications gadget  Shows notification message history received from other users or systems.

null value  A value that is absent of data. Null values are not equal to zero.

numeric attribute range  A feature used to associate a base dimension member that has a discrete numeric value with an attribute that represents a value range. For example, to classify customers by age, an Age Group attribute dimension can contain members for the following age ranges: 0-20, 21-40, 41-60, and 61-80. Each Customer dimension member can be associated with an Age Group range. Data can be retrieved based on the age ranges rather than on individual age values.

ODBC  Open Database Connectivity. A database access method used from any application regardless of how the database management system (DBMS) processes the information.

OK status  A consolidation status indicating that an entity has already been consolidated, and that data has not changed below it in the organization structure.

OLAP Metadata Catalog  In Integration Services, a relational database containing metadata describing the nature, source, location, and type of data that is pulled from the relational data source.

OLAP model  In Integration Services, a logical model (star schema) that is created from tables and columns in a relational database. The OLAP model is then used to generate the structure of a multidimensional database.

online analytical processing (OLAP)  A multidimensional, multiuser, client-server computing environment for users who analyze consolidated enterprise data in real time. OLAP systems feature drill-down, data pivoting, complex calculations, trend analysis, and modeling.

Open Database Connectivity (ODBC)  Standardized application programming interface (API) technology that allows applications to access multiple third-party databases.

organization  An entity hierarchy that defines each entity and their relationship to others in the hierarchy.

origin  The intersection of two axes.

outline  The database structure of a multidimensional database, including all dimensions, members, tags, types, consolidations, and mathematical relationships. Data is stored in the database according to the structure defined in the outline.
**outline synchronization** For partitioned databases, the process of propagating outline changes from one database to another database.

**P&L accounts (P&L)** Profit and loss accounts. Refers to a typical grouping of expense and income accounts that comprise a company’s income statement.

**page** A display of information in a grid or table often represented by the Z-axis. A page can contain data from one field, derived data from a calculation, or text.

**page file** Essbase data file.

**page heading** A report heading type that lists members represented on the current page of the report. All data values on the page have the members in the page heading as a common attribute.

**page member** A member that determines the page axis.

**palette** A JASC compliant file with a .PAL extension. Each palette contains 16 colors that complement each other and can be used to set the dashboard color elements.

**parallel calculation** A calculation option. Essbase divides a calculation into tasks and calculates some tasks simultaneously.

**parallel data load** In Essbase, the concurrent execution of data load stages by multiple process threads.

**parallel export** The ability to export Essbase data to multiple files. This may be faster than exporting to a single file, and it may resolve problems caused by a single data file becoming too large for the operating system to handle.

**parent adjustments** The journal entries that are posted to a child in relation to its parent.

**parents** The entities that contain one or more dependent entities that report directly to them. Because parents are both entities and associated with at least one node, they have entity, node, and parent information associated with them.

**partition area** A sub cube within a database. A partition is composed of one or more areas of cells from a portion of the database. For replicated and transparent partitions, the number of cells within an area must be the same for the data source and target to ensure that the two partitions have the same shape. If the data source area contains 18 cells, the data target area must also contain 18 cells to accommodate the number of values.

**partitioning** The process of defining areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications.

**pattern matching** The ability to match a value with any or all characters of an item entered as a criterion. Missing characters may be represented by wild card values such as a question mark (?) or an asterisk (*). For example, “Find all instances of apple” returns apple, but “Find all instances of apple*” returns apple, applesauce, applecranberry, and so on.

**percent consolidation** The portion of a child’s values that is consolidated to its parent.

**percent control** Identifies the extent to which an entity is controlled within the context of its group.

**percent ownership** Identifies the extent to which an entity is owned by its parent.

**performance indicator** An image file used to represent measure and scorecard performance based on a range you specify; also called a status symbol. You can use the default performance indicators or create an unlimited number of your own.

**periodic value method (PVA)** A process of currency conversion that applies the periodic exchange rate values over time to derive converted results.

**permission** A level of access granted to users and groups for managing data or other users and groups.

**persistence** The continuance or longevity of effect for any Essbase operation or setting. For example, an Essbase administrator may limit the persistence of user name and password validity.

**personal pages** A personal window to repository information. You select what information to display and its layout and colors.

**personal recurring time events** Reusable time events that are accessible only to the user who created them.

**personal variable** A named selection statement of complex member selections.
perspective  A category used to group measures on a scorecard or strategic objectives within an application. A perspective can represent a key stakeholder (such as a customer, employee, or shareholder/financial) or a key competency area (such as time, cost, or quality).

pie chart  A chart that shows one data set segmented in a pie formation.

pinboard  One of the three data object display types. Pinboards are graphics, composed of backgrounds and interactive icons called pins. Pinboards require traffic lighting definitions.

pins  Interactive icons placed on graphic reports called pinboards. Pins are dynamic. They can change images and traffic lighting color based on the underlying data values and analysis tools criteria.

pivot  The ability to alter the perspective of retrieved data. When Essbase first retrieves a dimension, it expands data into rows. You can then pivot or rearrange the data to obtain a different viewpoint.

planner  Planners, who comprise the majority of users, can input and submit data, use reports that others create, execute business rules, use task lists, enable e-mail notification for themselves, and use Smart View.

planning unit  A data slice at the intersection of a scenario, version, and entity; the basic unit for preparing, reviewing, annotating, and approving plan data.

plot area  The area bounded by X, Y, and Z axes; for pie charts, the rectangular area surrounding the pie.

plug account  An account in which the system stores any out of balance differences between intercompany account pairs during the elimination process.

post stage assignment  Assignments in the allocation model that are assigned to locations in a subsequent model stage.

POV (point of view)  A feature for setting data focus by selecting members that are not already assigned to row, column, or page axes. For example, selectable POVs in FDM could include location, period, category, and target category. In another example, using POV as a filter in Smart View, you could assign the Currency dimension to the POV and select the Euro member. Selecting this POV in data forms displays data in Euro values.

precalculation  Calculating the database prior to user retrieval.

precision  Number of decimal places displayed in numbers.

predefined drill paths  Paths used to drill to the next level of detail, as defined in the data model.

presentation  A playlist of Web Analysis documents, enabling reports to be grouped, organized, ordered, distributed, and reviewed. Includes pointers referencing reports in the repository.

preserve formulas  User-created formulas kept within a worksheet while retrieving data.

primary measure  A high-priority measure important to your company and business needs. Displayed in the Contents frame.

process monitor report  Displays a list of locations and their positions within the FDM data conversion process. You can use the process monitor report to monitor the status of the closing process. The report is time-stamped. Therefore, it can be used to determine to which locations at which time data was loaded.

product  In Shared Services, an application type, such as Planning or Performance Scorecard.

Production Reporting  See SQR Production Reporting.

project  An instance of EPM System products grouped together in an implementation. For example, a Planning project may consist of a Planning application, an Essbase cube, and a Financial Reporting server instance.

property  A characteristic of an artifact, such as size, type, or processing instructions.

provisioning  The process of granting users and groups specific access permissions to resources.

proxy server  A server acting as an intermediary between workstation users and the Internet to ensure security.

public job parameters  Reusable, named job parameters created by administrators and accessible to users with requisite access privileges.

public recurring time events  Reusable time events created by administrators and accessible through the access control system.

PVA  See periodic value method (PVA).
qualified name  A member name in a qualified format that differentiates duplicate member names in a duplicate member outline. For example, [Market].[East].[State].[New York] or [Market].[East].[City].[New York]

query  Information requests from data providers. For example, used to access relational data sources.

query governor  An Essbase Integration server parameter or Essbase server configuration setting that controls the duration and size of queries made to data sources.

range  A set of values including upper and lower limits, and values falling between limits. Can contain numbers, amounts, or dates.

reciprocal assignment  An assignment in the financial flow that also has the source as one of its destinations.

reconfigure URL  URL used to reload servlet configuration settings dynamically when users are already logged on to the Workspace.

record  In a database, a group of fields making up one complete entry. For example, a customer record may contain fields for name, address, telephone number, and sales data.

recurring template  A journal template for making identical adjustments in every period.

recurring time event  An event specifying a starting point and the frequency for running a job.

redundant data  Duplicate data blocks that Essbase retains during transactions until Essbase commits updated blocks.

regular journal  A feature for entering one-time adjustments for a period. Can be balanced, balanced by entity, or unbalanced.

Related Accounts  The account structure groups all main and related accounts under the same main account number. The main account is distinguished from related accounts by the first suffix of the account number.

relational database  A type of database that stores data in related two-dimensional tables. Contrast with multidimensional database.

replace  A data load option that clears existing values from all accounts for periods specified in the data load file, and loads values from the data load file. If an account is not specified in the load file, its values for the specified periods are cleared.

replicated partition  A portion of a database, defined through Partition Manager, used to propagate an update to data mastered at one site to a copy of data stored at another site. Users can access the data as though it were part of their local database.

Report Extractor  An Essbase component that retrieves report data from the Essbase database when report scripts are run.

report object  In report designs, a basic element with properties defining behavior or appearance, such as text boxes, grids, images, and charts.

report script  A text file containing Essbase Report Writer commands that generate one or more production reports.

Report Viewer  An Essbase component that displays complete reports after report scripts are run.

reporting currency  The currency used to prepare financial statements, and converted from local currencies to reporting currencies.

repository  Stores metadata, formatting, and annotation information for views and queries.

resources  Objects or services managed by the system, such as roles, users, groups, files, and jobs.

restore  An operation to reload data and structural information after a database has been damaged or destroyed, typically performed after shutting down and restarting the database.

restructure  An operation to regenerate or rebuild the database index and, in some cases, data files.

result frequency  The algorithm used to create a set of dates to collect and display results.

review level  A Process Management review status indicator representing the process unit level, such as Not Started, First Pass, Submitted, Approved, and Published.

Risk Free Rate  The rate of return expected from “safer” investments such as long-term U.S. government securities.
The means by which access permissions are granted to users and groups for resources.

**roll-up** See consolidation.

**root member** The highest member in a dimension branch.

**RSC services** Services that are configured with Remote Service Configurator, including Repository Service, Service Broker, Name Service, Event Service, and Job Service.

**runtime prompt** A variable that users enter or select before a business rule is run.

**sampling** The process of selecting a representative portion of an entity to determine the entity’s characteristics. See also metadata sampling.

**saved assumptions** User-defined Planning assumptions that drive key business calculations (for example, the cost per square foot of office floor space).

**scaling** Scaling determines the display of values in whole numbers, tens, hundreds, thousands, millions, and so on.

**scenario** A dimension for classifying data (for example, Actuals, Budget, Forecast1, and Forecast2).

**scope** The area of data encompassed by an Essbase operation or setting; for example, the area of data affected by a security setting. Most commonly, scope refers to three levels of granularity, where higher levels encompass lower levels. From highest to lowest, these levels are as follows: the entire system (Essbase Server), applications on Essbase servers, or databases within Essbase server applications. See also persistence.

**score** The level at which targets are achieved, usually expressed as a percentage of the target.

**scorecard** Business object that represents the progress of an employee, strategy element, or accountability element toward goals. Scorecards ascertain this progress based on data collected for each measure and child scorecard added to the scorecard.

**scrapping** An inspection of a data source to derive the most basic metadata elements from it. Contrast with introspection.

**Search gadget** Searches the Reporting and Analysis repository. The Search gadget looks for a match in the document keywords and description, which are set when you import a document.

**secondary measure** A low-priority measure, less important than primary measures. Secondary measures do not have Performance reports but can be used on scorecards and to create dimension measure templates.

**security agent** A Web access management provider (for example, Netegrity SiteMinder) that protects corporate Web resources.

**security platform** A framework enabling EPM System products to use external authentication and single sign-on.

**serial calculation** The default calculation setting. Divides a calculation pass into tasks and calculates one task at a time.

**services** Resources that enable business items to be retrieved, changed, added, or deleted. Examples: Authorization and Authentication.

**servlet** A piece of compiled code executable by a Web server.

**Servlet Configurator** A utility for configuring all locally installed servlets.

**shared member** A member that shares storage space with another member of the same name, preventing duplicate calculation of members that occur multiple times in an Essbase outline.

**Shared Services Registry** Part of the Shared Services database, the Shared Services Registry stores and re-uses information for most installed EPM System products, including installation directories, database settings, deployment settings, computer names, ports, servers, URLs, and dependent service data.

**Shared Workspace Page** Workspace Pages shared across an organization which are stored in a special System folder and can be accessed by authorized users from the Shared Workspace Pages Navigate menu.

**sibling** A child member at the same generation as another child member and having the same immediate parent. For example, the members Florida and New York are children of East and each other’s siblings.

**single sign-on** Ability to access multiple EPM System products after a single login using external credentials.

**smart slice** In Smart View, a reusable perspective of a data source that contains a restricted set of dimensions or dimension members.
Smart Space client software  Runs on the client’s computer and provides gadgets, instant collaboration and access to the Reporting and Analysis repository. It is composed of the Smart Space framework and gadgets.

Smart Space Collaborator  A service that enables users or systems to send messages and share Reporting and Analysis repository content. The message can take many forms, including instant message style discussions, meetings, and toast messages.

smart tags  Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In EPM System products, smart tags can also be used to import Reporting and Analysis content, and access Financial Management and Essbase functions.

SmartBook gadget  Contains documents from the Reporting and Analysis repository or URLs. All documents are loaded when the SmartBook is opened so you can access all content immediately.

SmartCut  A link to a repository item, in URL form.

snapshot  Read-only data from a specific time.

source currency  The currency from which values originate and are converted through exchange rates to the destination currency.

sparse dimension  In block storage databases, a dimension unlikely to contain data for all member combinations when compared to other dimensions. For example, not all customers have data for all products. Contrast with dense dimension.

SPF files  Printer-independent files created by an SQR Production Reporting server, containing a representation of the actual formatted report output, including fonts, spacing, headers, footers, and so on.

Spotlighter  A tool that enables color coding based on selected conditions.

SQL spreadsheet  A data object that displays the result set of a SQL query.

SQR Production Reporting  A specialized programming language for data access, data manipulation, and creating SQR Production Reporting documents.

stage  A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated.

stage action  For automated stages, the invoked action that executes the stage.

staging area  A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

standard dimension  A dimension that is not an attribute dimension.

standard journal template  A journal function used to post adjustments that have common adjustment information for each period. For example, you can create a standard template that contains the common account IDs, entity IDs, or amounts, then use the template as the basis for many regular journals.

Status bar  The status bar at the bottom of the screen displays helpful information about commands, accounts, and the current status of your data file.

stored hierarchy  In aggregate storage databases outlines only. A hierarchy in which the members are aggregated according to the outline structure. Stored hierarchy members have certain restrictions, for example, they cannot contain formulas.

strategic objective (SO)  A long-term goal defined by measurable results. Each strategic objective is associated with one perspective in the application, has one parent, the entity, and is a parent to critical success factors or other strategic objectives.

Strategy map  Represents how the organization implements high-level mission and vision statements into lower-level, constituent strategic goals and objectives.

structure view  Displays a topic as a simple list of component data items.

Structured Query Language  A language used to process instructions to relational databases.

Subaccount Numbering  A system for numbering subaccounts using non-sequential, whole numbers.

subscribe  Flags an item or folder to receive automatic notification whenever the item or folder is updated.
Summary chart  In the Investigates Section, rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

super service  A special service used by the startCommonServices script to start the RSC services.

supervisor  A user with full access to all applications, databases, related files, and security mechanisms for a server.

supporting detail  Calculations and assumptions from which the values of cells are derived.

suppress rows  Excludes rows containing missing values, and underscores characters from spreadsheet reports.

symmetric multiprocessing (SMP)  A server architecture that enables multiprocessing and multithreading. Performance is not significantly degraded when a large number of users connect to an single instance simultaneously.

cSync  Synchronizes Shared Services and application models.

cSynchronized  The condition that exists when the latest version of a model resides in both the application and in Shared Services. See also model.

system extract  Transfers data from an application’s metadata into an ASCII file.

tabs  Navigable views of accounts and reports in Strategic Finance.

target  Expected results of a measure for a specified period of time (day, quarter, and so on).

task list  A detailed status list of tasks for a particular user.

taskflow  The automation of a business process in which tasks are passed from one taskflow participant to another according to procedural rules.

taskflow definition  Represents business processes in the taskflow management system. Consists of a network of stages and their relationships; criteria indicating the start and end of the taskflow; and information about individual stages, such as participants, associated applications, associated activities, and so on.

taskflow instance  Represents a single instance of a taskflow including its state and associated data.

taskflow management system  Defines, creates, and manages the execution of a taskflow including: definitions, user or application interactions, and application executables.

taskflow participant  The resource who performs the task associated with the taskflow stage instance for both manual and automated stages.

Taxes - Initial Balances  Strategic Finance assumes that the Initial Loss Balance, Initial Gain Balance and the Initial Balance of Taxes Paid entries have taken place in the period before the first Strategic Finance time period.


template  A predefined format designed to retrieve particular data consistently.

text list  In Essbase, an object that stores text values mapped to numeric identifiers. Text Lists enable the use of text measures.

text measure  A data type that allows measure values to be expressed as text. In Essbase, a member tagged as “Text” in the dimension where measures are represented. The cell values are displayed as predefined text. For example, the text measure “Satisfaction Index” may have the values Low, Medium, and High. See also typed measure, text list, derived text measure.

time dimension  Defines the time period that the data represents, such as fiscal or calendar periods.

time events  Triggers for execution of jobs.

time line viewer  An FDM feature that allows a user to view dates and times of completed process flow steps for specific locations.

time scale  Displays metrics by a specific period in time, such as monthly or quarterly.

time series reporting  A process for reporting data based on a calendar date (for example, year, quarter, month, or week).

title bar  Displays the Strategic Finance name, the file name, and the scenario name Version box.

toast message  Messages that appear in the lower right corner of the screen and fade in and out.

token  An encrypted identification of one valid user or group on an external authentication system.
top and side labels  Column and row headings on the top and sides of a Pivot report.

top-level member  A dimension member at the top of the tree in a dimension outline hierarchy, or the first member of the dimension in sort order if there is no hierarchical relationship among dimension members. The top-level member name is generally the same as the dimension name if a hierarchical relationship exists.

trace allocations  A feature of Profitability and Cost Management that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

trace level  Defines the level of detail captured in the log file.

traceability  The ability to track a metadata element to its physical source. For example, in Essbase Studio, a cube schema can be traced from its hierarchies and measure hierarchies, to its dimension elements, date/time elements, and measures, and ultimately, to its physical source elements.

traffic lighting  Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

transformation  (1) Transforms artifacts so that they function properly in the destination environment after application migration. (2) In data mining, modifies data (bidirectionally) flowing between the cells in the cube and the algorithm.

translation  See currency conversion.

Transmission Control Protocol/Internet Protocol (TCP/IP)  A standard set of communication protocols linking computers with different operating systems and internal architectures. TCP/IP utilities are used to exchange files, send mail, and store data to various computers that are connected to local and wide area networks.

transparent login  Logs in authenticated users without launching the login screen.

transparent partition  A shared partition that enables users to access and change data in a remote database as though it is part of a local database.

triangulation  A means of converting balances from one currency to another via a third common currency. In Europe, this is the euro for member countries. For example, to convert from French franc to Italian lira, the common currency is defined as European euro. Therefore, in order to convert balances from French franc to Italian lira, balances are converted from French franc to European euro and from European euro to Italian lira.

triggers  An Essbase feature whereby data is monitored according to user-specified criteria which when met cause Essbase to alert the user or system administrator.

trusted password  A password that enables users authenticated for one product to access other products without reentering their passwords.

trusted user  Authenticated user.

tuple  MDX syntax element that references a cell as an intersection of a member from each dimension. If a dimension is omitted, its top member is implied. Examples: (Jan); (Jan, Sales); ( [Jan], [Sales], [Cola], [Texas], [Actual] )

two-pass  An Essbase property that is used to recalculate members that are dependent on the calculated values of other members. Two-pass members are calculated during a second pass through the outline.

typed measure  In Essbase, a member tagged as “Text” or “Date” in the dimension where measures are represented. The cell values are displayed as predefined text or dates.

unary operator  A mathematical indicator (+, -, *, /, %) associated with an outline member. The unary operator defines how the member is calculated during a database roll-up.

Unicode-mode application  An Essbase application wherein character text is encoded in UTF-8, enabling users with computers set up for different languages to share application data.

Uniform Resource Locator  The address of a resource on the Internet or an intranet.

unique member name  A non-shared member name that exists only once in a database outline.

unique member outline  A database outline that is not enabled for duplicate member names.
**upgrade**  The process of replacing an earlier software release with a current release or replacing one product with another.

**upper-level block**  A type of data block wherein at least one of the sparse members is a parent-level member.

**user directory**  A centralized location for user and group information. Also known as a repository or provider.

**user variable**  Dynamically renders data forms based on a user's member selection, displaying only the specified entity. For example, user variable named Department displays specific departments and employees.

**user-defined attribute (UDA)**  User-defined attribute, associated with members of an outline to describe a characteristic of the members. Users can use UDAs to return lists of members that have the specified UDA associated with them.

**user-defined member list**  A named, static set of members within a dimension defined by the user.

**validation**  A process of checking a business rule, report script, or partition definition against the outline to make sure that the object being checked is valid. For example, in FDM, validation rules ensure that certain conditions are met after data is loaded from FDM to the target application.

**value dimension**  Used to define input value, translated value, and consolidation detail.

**variance**  Difference between two values (for example, planned and actual value).

**varying attribute**  An attribute association that changes over one or more dimensions. It can be used to track a value in relation to these dimensions; for example, the varying attribute Sales Representative, associated with the Product dimension, can be used to track the value Customer Sales of several different sales representatives in relation to the Time dimension. Varying attributes can also be used for member selection, such as finding the Products that a Sales Representative was responsible for in May.

**version**  Possible outcome used within the context of a scenario of data. For example, Budget - Best Case and Budget - Worst Case where Budget is scenario and Best Case and Worst Case are versions.

**view**  Representation of either a year-to-date or periodic display of data.

**visual cue**  A formatted style, such as a font or a color, that highlights specific types of data values. Data values may be dimension members; parent, child, or shared members; dynamic calculations; members containing a formula; read only data cells; read and write data cells; or linked objects.

**Web server**  Software or hardware hosting intranet or Internet Web pages or Web applications.

**weight**  Value assigned to an item on a scorecard that indicates the relative importance of that item in the calculation of the overall scorecard score. The weighting of all items on a scorecard accumulates to 100%. For example, to recognize the importance of developing new features for a product, the measure for New Features Coded on a developer's scorecard would be assigned a higher weighting than a measure for Number of Minor Defect Fixes.

**wild card**  Character that represents any single character or group of characters (*) in a search string.

**WITH section**  In MaxL DML, an optional section of the query used for creating re-usable logic to define sets or members. Sets or custom members can be defined once in the WITH section, and then referenced multiple times during a query.

**work flow**  The steps required to process data from start to finish in FDM. The workflow consists of Import (loading data from the GL file), Validate (ensures all members are mapped to a valid account), Export (loads the mapped members to the target application), and Check (verifies accuracy of data by processing data with user-defined validation rules).

**workbook**  An entire spreadsheet file with many worksheets.

**Workspace Page**  A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

**write-back**  The ability for a retrieval client, such as a spreadsheet, to update a database value.

**ws.conf**  A configuration file for Windows platforms.

**wsconf_platform**  A configuration file for UNIX platforms.

**XML**  See Extensible Markup Language (XML).
**XOLAP**  An Essbase multidimensional database that stores only the outline metadata and retrieves all data from a relational database at query time. XOLAP supports aggregate storage databases and applications that contain duplicate member names.

**Y axis scale**  Range of values on Y axis of charts displayed in Investigate Section. For example, use a unique Y axis scale for each chart, the same Y axis scale for all Detail charts, or the same Y axis scale for all charts in the column. Often, using a common Y axis improves your ability to compare charts at a glance.

**Zero Administration**  Software tool that identifies version number of the most up-to-date plug-in on the server.

**zoom**  Sets the magnification of a report. For example, magnify a report to fit whole page, page width, or percentage of magnification based on 100%.

**ZoomChart**  Used to view detailed information by enlarging a chart. Enables you to see detailed numeric information on the metric that is displayed in the chart.
Index

Symbols
MISSING data, 525
  specifying settings for, 523
missing data
  representing with Smart Lists, 103
Missing Data Form Label option, 102
Missing Drop Down Label option, 103

Numbers
4-4-5 weekly pattern, 162
445 and 544 weekly patterns, considerations for redeploying, 210
5-4-4 weekly pattern, 162

A
access permissions
  impact of deleting members, 211
access permissions, assigning for Planning, 81
access permissions, defining for Scenario, 531
Account dimension, 522
Account dimension type, 167
description, 45
Account members
  Account types, 523
  plan types, 522
Account properties
  consolidation, 490
  Planning, 522
Account types
  and expense reporting, 523
described, 523
  summary of, 524
AccountType
  behavior, 493
Actions menu, 233
active account, 510
Actual_365 weighted average time balance, 525
Actual_Actual weighted average time balance, 525
  adding
    a business rule to a ruleset, 266
    a rule or ruleset to a ruleset, 268
    business rules, 241, 242, 243
    business rulesets, 262
    components to a business rule, 243, 249
    predefined business rules, 247
    properties of a business rule, 244
    properties of a business ruleset, 263
Aggregate Storage option applications requirements, 177
Aggregation for plan types, 521
Aggregation template
  described, 280
Aggregation Weight, 496
Alias, 491, 496, 497, 499, 505, 508, 512
Alias dimension
  Dimension Sort Order, 174
  setting up, 78
Alias dimension type
  description, 45
Alias dimensions, 167
alias tables
  creating in Planning, 519
  default for Planning, 519
  selecting for Planning, 521
aliases
  naming conventions, 537
Planning, 521
Profitability and Cost Management requirements, 167
selecting, 521
using to deploy dimensions, 77
Allocate Level to Level template
  described, 279
Allocate Simple template
  described, 279
Allocate Simple template, using, 287
AllocationType dimension, 167
  Dimension Sort Order, 174
AllocationType dimension type
description, 45
Allow Adjustments, 497
Allow Adjustments From Children, 498
Amount–Unit–Rate template
described, 279
Analytic Services
considerations for, 534
Ancestors member query function, 579
application
  consolidation requirements, 146
application library
  viewing data flow, 198
application members
  filtering, 138
application membership
  viewing, 186
application properties
  consolidation, 501
  Planning, 517
applications
  about, 143
  accessing from data flow, 200
  adding dimensions, 147, 157
  adding dimensions manually, 170
  changing the dimension order, 162
  compare results, 196
  comparing, 195
  creating consolidation, 145
  creating Planning, 153, 154, 155, 156, 157
  creating profitability, 166
  data sources, 218
  data type evaluation order, 164
  defining base time period, 162
  defining currencies, 156
  defining monthly distribution spread, 162
  defining the calendar range, 162
  dense and sparse dimensions, 162
  deploying, 200
  deploying consolidation, 205
  deploying for Planning, 210
  excluding members, 141
  exporting, 432
  filtering members, 138

  instances, 218
  management, 24
  managing, 143
  modifying Planning, 160
  naming rules, 536
  optimizing performance, 162
  performance, 164
  plan type performance settings, 162
  prerequisites, 144
  process, 143
  redeploying, 210
  removing dimensions, 183
  Profitability and Cost Management requirements, 167
  setting up plan types, 156
  validating, 200, 201
  viewing application membership, 186
  viewing dimension associations, 183
  working with members, 138
architecture
  Performance Management Architect, 27
  asset account behavior, 494
associations
  assigned when upgrading Planning, 77
dimension, 183
  loading in flat files, 77
associations, removed when deleting Planning
members, 126
attachments
  viewing job attachments, 469
Attribute dimension
  Dimension Sort Order, 174
Attribute dimension type
description, 46
Attribute dimensions, 167
attribute values
  excluding, 126
  loading, 534
  Planning, 522
Auto Create Local Dimensions, 154
Average time balance property, 524

B
backing up
  before refreshing, 534
balance account behavior, 494
Balance property, 524
balance recurring account behavior, 494
base time period, 518
  defining, 162
  spreading data, 162
batch client
  about, 26
BegBalance member. See Beginning Balance time period
Beginning Balance time period
  and Scenario, 531
  editing, 529
  required for deployment, 529
blank applications, creating, 154
Block Storage option applications
  requirements, 177
bottom-up versions, 532
BottomOfHierarchy member query function, 583
Business dimension
  Dimension Sort Order, 174
Business dimensions, 167
business rules
  adding components to, 243, 249
  changing the owner of, 274
  copying, 255
  copying and pasting components in, 249
  copying children of a component and, 256
  copying the reference to a component, 257
  creating, 241, 242, 243, 249, 267
  creating a shortcut to, 259
  deleting, 259
  deleting components from, 249
  deploying with Quick Deploy, 411
  deploying with shortcuts, 411
  deploying, from the Deployment View, 409
  deploying, from the Rule Designer, 410
  deploying, overview of, 407
  described, 241
  editing, 248
  editing in script mode, 252
  editing properties of, 250, 253
  entering properties for, 244
  exporting, 431
  exporting and importing, overview of, 431
  importing, 433
  launching, Essbase, 413
  loading, predefined, 247
  making deployable, 408
migrating, 415
  overview, 415
migrating from Financial Management to Calculation Manager, 424
migrating from Planningto Calculation Manager, 415
opening, 248
pasting, 255
pasting children of a component and, 256
pasting the reference to a component, 257
printing, 260
refreshing, 272
saving, 258
saving with different names, 258
validating, 405
viewing the usages of, 246, 251, 254, 273
business rulesets
adding a business rule to, 266
adding a rule or ruleset to, 268
changing the owner of, 274
copying, 269
creating, 262
deleting, 272
deploying, from the Deployment View, 409
deploying, from the Ruleset Designer, 410
deploying, overview of, 407
described, 261
editing, 267
editing properties of, 268
entering properties for, 263
exporting, 431
importing, 433
making deployable, 408
opening, 265
opening a business rule in, 265
opening a rule or ruleset in, 268
pasting, 269
refreshing, 272
removing a business rule from, 266
removing a rule or ruleset from, 268
saving, 270
saving with different names, 271
validating, 405
viewing the usages of, 264, 269, 273

C
  Calc Attribute, 491
calc scripts
searching, 246, 251, 253, 255, 329
Calculation Manager
described, 225
logging onto, 228
calculations. See business rules
calendar range, defining, 162
calendars
adding years to, 532
changing the current year or time period, 532
creating summary time periods, 529
practical limits, 529
requirements for redeploying, 210
setting up, 529
characters, reserved, 536
Clear Data template
described, 279
clearing interface tables, 62
CloseInputValueBlock variable, 136
compare results
excluding members, 198
viewing, 196
comparing
applications, 195
components
adding components to a business rule, 249
adding, to a business rule, 243
changing the owner of, 274
copying and pasting components in a business rule, 249
creating a template from, 309
deleting from a business rule, 249
validating, 405
Consol1...3 account, 510
Consolidate YTD, 499
consolidation
application requirements, 146
Consolidation Account Type, 491
consolidation accounts
active account, 510
Consol1...3 account, 510
DOWN account, 510
method account, 510
PCON account, 510
PCTRL account, 510
POWN account, 510
Consolidation Method, 505
Consolidation Method dimension type
description, 46
Consolidation Rules, 502
Control, 506
Copy Data template
described, 279
copying
business rules, 255
business rulesets, 269
children of a business rules component, 256
the reference of a business rules component, 257
copying dimensions, 83
Country dimension type, 167
description, 46
creating
business rules, 241, 242, 243
business rulesets, 262
components for a business rules component, 243
properties of a business rule, 244
properties of a business ruleset, 263
creating applications
consolidation, 145
Planning, 153, 154, 155, 157
profitability, 166
creating dimension associations, 81
creating dimensions, 74
creating import files
dimension library, 47
creating import profiles, 62
creating members, 117
creating shared members, 118
creation
about, 23
CrossRef(accountName) function, 137
CrossRef(accountName, prefix) function, 137
currencies
conversions with, 156
defining in an applications, 156
multiple, 156
reporting, 527
currency, 498
name, 528
reporting, 527
requirements for redeploying, 210
triangulating, 527
Currency Code, 527
Currency dimension type, 167
description, 46
currency for Entity members, 528
currency properties
  consolidation, 508
  Planning, 518
Currency Symbol, 527
custom defined templates
copying and pasting, 312
  creating, 298
  creating design time prompts for, 301
  creating from components, 309
  defining a default value for design time prompts, 307
  defining dependencies for design time prompts, 307
  defining dimension limits for design time prompts, 306
  deleting, 312
  described, 298
  designing, 299
  editing, 309
  inserting into a flow chart, 313
  opening, 309
  refreshing, 311
  removing from a flow chart, 314
  saving, 310
  saving with a different name, 310
  searching for, 314
  selecting design time prompts for, 305
  showing the usages of, 311
custom dimensions
deleing, 126
  excluding, 126
  naming, 81
custom properties
  consolidation, 495
  Planning, 81
custom time periods, Planning, 518
Custom Top Member, 491
Custom view
  described, 237
CYTD(memberName) function, 137
CYTD(memberName, calTpIndexName, fiscalTpIndexName) function, 137

data
data distribution over time, 162
  impact of deleting members, 211
data flow
  editing synchronizations, 200
  executing synchronizations, 200
  focal application, 199
  validating synchronizations, 200
  viewing, 198
  viewing synchronizations, 199
data forms, impact of deleting members, 211
data sources
  configuring the Essbase server, 219
  creating and editing, 218
  deleting, 221
  entering information, 219
  managing, 218
  selecting, 219
  starting the Data Source wizard, 218
  supporting Unicode, 219
  viewing details, 220
Data Storage
  shared members use ShareData, 122
  using to optimize performance, 520
data synchronization, 438
  applications, 438
  assigning default members, 448
  changing the data synchronizer view, 456
  creating mapping tables, 450, 453
  creating taskflows, 476
  creating using interface tables, 442
  data interface tables, 441
defining the interface area, 441
deleting, 457
destination dimension rule syntax, 451
duplicating, 457
duplication, 457
  editing, 457
  editing from data flow, 200
  editing mapping tables, 449
  executing, 458
  executing from data flow, 200
data external files, 442
filtering dimensions, 447
filters, 456
mapping, 449
mapping dimensions, 444
mapping tables, 448

D
D-T-D, Day-to-date, 122
multiple currency applications, 440
navigating the data synchronizer, 455
saving, 449
source dimension rule syntax, 450
understanding, 437
validating, 458
validating from data flow, 200
viewing in data flow, 199
working with the data synchronizer, 455

Decimal Separator, 526
Default Alias Table
defining, 519
requirements for deploying, 203
Default Currency, 502, 518
requirements for redeploying, 210
Default Frequency, 499
Default Frequency For IC Transactions, 499
default members
assigning for data synchronizations, 448
Default Parent, 491, 496, 498, 499, 512
Default Rate For Balance Accounts, 502
Default Rate For Flow Accounts, 502
Default Value For Active, 502
default values, defining for design time prompts, 307
Default View, 499
defining
Consolidation Method, 505
defleted members
checking Show Usage in Planning, 126
checking usage before deploying, 203, 211
deleting
a business rule from a ruleset, 266
a rule or ruleset from a ruleset, 268
business rules, 259
business rulesets, 272
components from a business rule, 249
custom defined templates, 312
jobs, 471
deleting dimension associations
dimension library, 82
deleting dimensions, 89
deleting import profiles, 71
deleting members
dimension library, 125
dense dimensions, 77
and performance, 162
changing to sparse, 534
dependencies, defining for design time prompts, 307
deploying
applications, 200
BegBalance required for, 529
checking Show Usage, 203, 211
deleting members, implications of, 211
Essbase (ASO) applications, 208
Essbase (BSO) applications, 208
Essbase BSO applications, 208
excluding members, 126
full, not partial dimension update, 203
Planning considerations, 203
required dimensions, 153, 157, 203
Scenario required for Planning, 531
shared members, with ShareData, 122
troubleshooting, 203, 210, 532, 533
Version required for Planning, 531
Year required for Planning, 532
YearTotal required for, 529
deployment
about, 23
Deployment View
described, 238
design time prompts
creating for custom defined templates, 301
defining a default value for, 307
defining dependencies for, 307
defining dimension limits for, 306
selecting for custom defined templates, 305
dimension
removing in applications, 183
Dimension Alias, in System Properties, 77
dimension associations
creating, 81
deleting, 82
viewing, 82, 183
Dimension Library
associations, 77
new Planning dimensions, 77
dimension library
viewing dimension associations, 82
dimension limits
defining for design time prompts, 306
dimension order
changing, 162
Dimension Sort Order property, 174
dimension types
Account, 45
Alias, 45, 167
Allocation Type, 45, 167
Attribute, 46
attribute, 167
business, 167
Consolidation Method, 46
Country, 46
Currency, 46
defined, 45
Entity, 46
Generic, 46
ICP, 46
Measures, 46, 167
Period, 46
POV, 167
POV dimensions, 173
POV Display Order, 173
Scenario, 46
Security Class, 46
Smart List, 46
Time, 46
Value, 46
Version, 46
View, 46
Year, 47
Dimension(dimtag) function, 136
dimensions
Profitability and Cost Management, 167
Account, 522
adding to applications, 147, 157
adding to applications manually, 170
associations, 77
copying, 83
copying into folders, 85
creating, 74
deleting, 89, 126
dense, 77
deploying, considerations for, 203
Entity, 528
excluding, 126
flat files, specifying associations, 77
hierarchies, 77
managing in dimension library, 45
naming conventions, 537
naming conventions for Planning, 81
organizing, 85
Planning-specific information, 517
predefined, 153, 157, 203
relationship to members, 76
requirements for redeploying, 211
sparse, 77
user-defined, 81
Display In ICT, 508
display order
POV dimensions, 173
Display Order option for Smart Lists, 102
distribution of data over time periods, 162
DOWN account, 510
down arrows in data cells, 100
DTS members
predefined, 122
renaming Year and Period, 122
Dynamic Calc and Dynamic Calc and Store options, 520
Dynamic Time Series (DTS), 122
E
Edit menu, 231
editing
business rules, 248
business rules, in script mode, 252
business rule sets, 267
custom defined templates, 309
mapping tables, 449
properties of a business rule, 250, 253
properties of a business rule set, 268
ingeditimportprofiles, 71
Enable Custom Aggregation, 491
Enable Data Audit, 492, 500
Enable for Process Management, 530, 532
Enable Logging setting, 244, 250, 253, 264, 269
Enable Metadata Security Filtering, 502
Enable Process Management, 500
Enable Timer setting, 245, 250, 253, 264, 269
End Period, 531
End Year, 531
Entity dimension, 528
Entity dimension type, 167
description, 46
Entity members
and plan types, 519
currency, 528
Entity properties
consolidation, 497
for Planning, 528
EPM Workspace
logging onto, 228
equity Account type
summary, 524
error messages
deployment, 122, 203, 532, 533
for formula expressions, 138
redemption, 210
Essbase (ASO) applications
deployment guidelines, 208
deployment requirements, 208
requirements, 177
Essbase (BSO)
deploying, 208
Essbase (BSO) applications
deployment guidelines, 208
deployment requirements, 208
requirements, 177
exchange rate tables, defining for Scenarios, 531
exchange rates, types for Account members, 523
excluded members
checking Show Usage in Planning, 126
excluding members
in compare results, 198
executing
data synchronizations, 458
data synchronizations from data flow, 200
expense account behavior, 494
expense Account type
summary, 524
expense account type
and variance reporting, 523
Expense Reporting option, 523
Expense setting, 523
Export Data template
described, 280
exporting
applications, 432
business rules, 431
business rule sets, 431
formula and script components, 431
overview of, 431
templates, 431
expressions. See formula expressions
F
Favorites menu, 232
FDM Application Name, 504
File menu, 230
fill time balance property, 524
filtering
dimensions in data synchronizations, 447
members, 138
filters
creating in the job console, 466
other user jobs in the job console, 467
synchronizations, 456
using in Calculation Manager, 234
your jobs in the job console, 467
First time balance property, 524
First Year
described, 533
fiscal start month, requirements for redeploying, 210
fiscal year, setting up, 162
flat file import
creating taskflows, 476
flow
viewing data, 198
flow account behavior, 494
flow charts
inserting custom defined templates into, 313
inserting system templates into, 296
removing custom defined templates from, 314
removing system templates from, 297
using in Calculation Manager, 234
Flow time balance property, 524
focal application
changing, 199
folders
adding dimensions, 85
copying dimensions, 85
creating, 85
formula components
changing the owner of, 274
exporting, 431
importing, 433
validating, 405
formula expressions, 135
described, 136
error messages for, 138
prerequisites for using, 136
syntax for, 137
using in member formulas, 135
using Smart Lists in, 137
functions. See formula expressions
member query, 575

G
Generic dimension type
description, 46
getCalendarTPIndex() function, 137
getFiscalTPIndex() function, 137

H
H-T-D, History-to-date, 122
Help menu, 233
hierarchies section
  isPrimary column, 51
Holding Company, 498
HSP_NOLINK, 535
HSP_UDF, 535

I
ICP, 511
ICP dimension type
description, 46
ICP Entities Aggregation Weight, 502
ICP members
  system generated, 511
ICP Top Member, 492
import files
  creating, 47
    Dimension Associations section, 49
    Dimensions section, 48
    Hierarchies section, 51
    Members section, 49
    Property Array section, 52
import profiles
  creating, 62
deleting, 71
  editing, 71
  importing dimensions, 69
  managing, 69
  viewing, 71
Import Profiles, and Planning, 76
import results, 470
importing
  business rules, 433
  business rulesets, 433
  formula and script components, 433
  overview of, 431
  templates, 433
instances, working with, 218
intercompany partners, setting up, 511
interface area
defining, 441
interface data source
  configuring, 56
interface table import
  creating taskflows, 477
interface tables
  clearing, 62
defining, 58
  overview, 55
  system tables, 58
Is Calculated, 492, 496
Is Consolidated, 492
Is Holding Method, 506
Is ICP, 492
  entities, 498

J
job
  attachments, 469
deleting, 471
types, 463
jobs
  managing, 463

L
Label Only option, 520
labels
  in Smart Lists, 102
  liability account behavior, 494
  liability Account type
    summary, 524
library job console
  changing the view, 465
creating filters, 466
deleting jobs, 471
job types, 463
navigating, 464
refreshing, 466
security, 468
security for displaying jobs, 468
security for submitting jobs, 468
viewing job attachments, 469
working with, 463
Lifecycle Management, 32
List View
described, 234
loading
predefined business rules, 247
loading dimensions, using flat files, 77

M
M-T-D, Month-to-date, 122
management
application, 24
managing
jobs, 463
managing import profiles, 69
mapping
about, 449
creating tables, 450
deleting, 457
dimensions for synchronizations, 444
duplicating, 457
editing, 449
tables, 448
mapping tables
editing, 457
Match member query function, 582
Maximum Cell Text Size, 503
Maximum Document Attachment Size, 503
Maximum Number of Document Attachments, 503
Maximum Review Level, 500
Measures dimension, 167
  Dimension Sort Order, 174
Measures dimension type
description, 46
member formulas
  Planning, 521
  using formula expressions in, 135
  viewing results of validation, 135
  working with, 134
member query functions, 575
members
  aggregation properties, 521
assigning default, 448
considerations for refreshing, 534
deleting, 125, 126
deleting, implications of, 211
excluding, 126
excluding in applications, 141
naming conventions, 537
of the Entity dimension, 519
Planning-specific information, 517
removing, 125
working with, 138
working with shared members, 121
membership
viewing application, 186
menus
  Actions menu, 233
  Calculation Manager, 230
  Edit menu, 231
  Favorites menu, 232
  File menu, 230
  Help menu, 233
  Performance Management Architect, 34, 35, 36
  Tools menu, 232
  View menu, 231
metadata
  considerations for refreshing, 534
  metadata integrity, 513
  method account, 510
migrating
  business rules, 415
    overview, 415
  business rules from Financial Management to Calculation Manager, 424
  business rules from Planning to Calculation Manager, 415
missing data in Account calculations, 525
modifying applications
  Planning, 160
modules
  Performance Management Architect, 24
monthly distribution patterns, 162
multiple currencies, 156, 210, 518
multiple UDAs for a single member, 520

N
Name, 492, 496, 498, 500, 505, 508, 512
naming conventions, for Planning, 81
naming restrictions
  applications, 536
  dimensions, members, and aliases, 537
navigating
  library job console, 464
navigation
  Performance Management Architect, 33
Negative Color, 527
Negative Sign, 526
Never aggregation property, 521
Never Share option, 520
No Year member, described, 533
Node Security, 503
non-expense Account types, 523
Non-Expense setting, 523
Number Of Decimal Place, 493
NumberOfPeriodsInYear variable, 136
NumberOfYears variable, 136

O
opening
  a business rule in a ruleset, 265
  a rule or ruleset in a ruleset, 268
  business rules, 248
  business rulesets, 265
custom defined templates, 309
OpenInputValueBlock variable, 136
optimizing performance, 162
Org By Period Application, 503
organization by period, 504
orphan members, 125
outline, considerations for updating, 534
ownership
  changing, 274
ownership accounts
  SharesOutstanding account, 510
  SharesOwned account, 510
  VotingOutstanding account, 511
  VotingOwned account, 510

P
P-T-D, Period-to-date, renaming Period member, 122
Parent member query function
  ALE, ADS driver, 578
pasting
  business rules, 255
  business rulesets, 269
  children of a business rules component, 256
  the reference of a business rules component, 257
PCON account, 510
PCTRL account, 510
Percent Consol, 506
Percent Consol Value, 506
percent consolidation, 510
percent control, 510
percent direct ownership, 510
percent ownership, 510
performance
  changing dimension order, 162
  optimizing in applications, 162
  plan type settings, 162
  setting data type evaluation order, 164
Performance Management Architect
  about, 23
Planning-specific information, 517
Period dimension, 529
Period dimension type
description, 46
Period(periodName) function, 137
Period, changing, 532
Period-to-date, renaming Period, 122
permissions, assigning for Planning, 81
Phased Submission Start Year, 500
Plan Name, 517
plan types
  Account members, 522
  Entity members, 519
  Planning, 518
  requirements for redeploying, 210
  setting, 517
  setting up in applications, 156
Plan1, Plan2, and Plan3 plan types, described, 517
Planning
  access permissions, 81
  Account Type, 523
  Account type combinations, 524
  Accounts, 522
  adding dimension members with Import Profiles, 76
  aggregation properties, 521
  alias tables, 521
  alias tables, default, 519
application properties, 517
application requirements, 154
applications, deploying, 210
attribute values, 522, 534
base time period, 518
BegBalance member, 529
currency, 526, 528
data storage, 520
data type, 521
default alias table, 519
defining plan types, 156
deleting members, implications of, 211
deployment considerations, 203
dimensions, 76, 81, 517
dynamic calc, 520
Entity properties, 528
time balance property examples, 524
examples of Account calculation, 525
exchange rate tables, 531
Exchange Rate Type, 523
Expense Reporting option, 523
member formulas, 521
members, deleting, 126
members, excluding, 126
modifying application settings, 160
multiple currencies, 518
naming conventions, 81
pattern, 519
Period properties, 529
plan name, 517
plan types, 517, 522
predefined dimensions, 153, 157, 203
process management, enabling for, 530, 532
properties for, 519
redeployment considerations, 210
reporting currency, 527
Scenario, 530
selecting dimensions, 157
shared members, setting Data Storage to ShareData, 122
shared members, working with, 121
Source Plan Type, 524
sparse and dense dimension, 77
specifying the default currency, 156
Start Year, 203
start year and month, 519
target and bottom-up versions, 532
Two Pass Calc, 522
UDAs, 520
Valid for Plan, 519
Version, 531
Year dimension, 532
YearTotal member, 529
planning units, impact of deleting members, 211
Plug Account, 493
POV
POV dimension, 173
POV Display Order, 173
POV dimension, 167
Dimension Sort Order, 174
POWN account, 510
predefined dimensions
requirements for deploying, 153, 157, 203
requirements for redeploying, 211
prerequisites
applications, 144
previous releases
compatibility, 515
printing
business rules, 260
process
creating applications, 28
process management, using with Planning, 530, 532
Profitability and Cost Management
deployment validation, 207
prompts
creating design time prompts, 301
defining a default value for, 307
defining dependencies for, 307
defining dimension limits for, 306
selecting design time prompts, 305
properties
Aggregation Weight, 496
Alias, 491, 496, 497, 499, 505, 508, 512
Allow Adjustments, 497
Allow Adjustments From Children, 498
base time period, 518
Calc Attribute, 491
Consolidate YTD, 499
consolidation
Account, 490
Application, 501
custom, 495
Entity, 497
Scenario, 499
Consolidation Account Type, 491
consolidation properties
   currency, 508
Consolidation Rules, 502
Control, 506
currency, 498
Custom Top Member, 491
Default Alias Table, 519
Default Currency, 502, 518
Default Frequency, 499
Default Frequency For IC Transactions, 499
Default Parent, 491, 496, 498, 499, 512
Default Rate For Balance Accounts, 502
Default Rate For Flow Accounts, 502
Default Value For Active, 502
Default View, 499
Display In ICT, 508
effect of changing dimension from sparse to dense, 534
Enable Custom Aggregation, 491
Enable Data Audit, 492, 500
Enable Metadata Security Filtering, 502
Enable Process Management, 500
FDM Application Name, 504
Holding Company, 498
ICP Entities Aggregation Weight, 502
ICP Top Member, 492
Is Calculated, 492, 496
Is Consolidated, 492
Is Holding Method, 506
Is ICP, 492, 498
Maximum Cell Text Size, 503
Maximum Document Attachment Size, 503
Maximum Number of Document Attachments, 503
Maximum Review Level, 500
Multiple Currencies, 518
Name, 492, 496, 498, 500, 508, 512
name, 505
Node Security, 503
Number Of Decimal Places, 493
of a business rule
   editing, 250, 253
   entering, 244
of a business ruleset
   editing, 268
   entering, 263
Org By Period Application, 503
Percent Consol, 506
Percent Consol Value, 506
Phased Submission Start Year, 500
Plan Name, 517
Planning, 517
Plug Account, 493
Scale, 509
Security As Partner, 498
Security Class, 493, 496, 498, 500, 512
Security For Accounts, 503
Security For Custom, 503
Security For Entities, 504
Security For ICP, 504
Security For Scenarios, 504
Start Month, 519
Start Year, 519
Submission Group, 493, 496, 512
Support Submission Phase for Account, 504
Support Submission Phase for Custom, 504
Support Submission Phase for ICP, 504
Switch Sign For Flow, 497
Switch Type For Flow, 497
system, 77
To Percent Control, 506
To Percent Control Compare, 506
Translation Operator, 509
UDA, 500
Use PVA For Balance Accounts, 503
Use PVA For Flow Accounts, 503
Used By Calc Routine, 506
User Defined 1...3, 493, 501
User Defined1...3, 497, 499
Uses Line Items, 493, 501
Valid for Plan, 518
Validation Account, 504
Weeks , 519
XBRL Tags, 493
Zero View For Adjustments, 501
Zero View For Non-adjustments, 501
property values, effect of changing dimension from
   sparse to dense, 534
Purge Transaction History on Success, 204

Q
Q-T-D, Quarter-to-date, 122
Quick Deploy, described, 411

R
range of time periods, setting, 529
redeploying
  applications, 210
  checking Show Usage, 203, 211
currency issues, 210
Planning considerations, 210
Scenario considerations, 531
troubleshooting, 210, 532, 533
Year dimension considerations, 532
redeployment
  creating taskflows, 477
referential integrity, 513
refreshing
  business rules, 272
  business rulesets, 272
custom defined templates, 311
library job console, 466
refreshing databases
  considerations for, 534
removing members, 125
reporting currencies, 527
requirements
  Aggregate Storage option applications, 177
  Block Storage option applications, 177
  Essbase (ASO) applications, 177
  Essbase (BSO) applications, 177
reserved characters, 536
results
  viewing import, 470
revenue account behavior, 494
revenue Account type
  summary, 524
roles
  Performance Management Architect, 30
rule syntax
  destination dimension used in data
    synchronizations, 451
  source dimension used in data synchronizations, 450
rules
  adding components to, 243, 249
  changing the owner of, 274
  copying, 255
  copying and pasting components in, 249
copying children of a component and , 256
copying the reference to a component, 257
creating, 241, 242, 243, 249, 267
creating a shortcut to, 259
deleting, 259
deleting components from, 249
deploying with Quick Deploy, 411
deploying with shortcuts, 411
deploying, from the Deployment View, 409
deploying, from the Rule Designer, 410
deploying, overview of, 407
described, 241
ing, 248
editing in script mode, 252
entering properties for, 244
exporting, 431
exporting and importing, overview of, 431
importing, 433
launching, Essbase, 413
loading, 247
making deployable, 408
migrating, 415
  overview, 415
migrating from Financial Management to
  Calculation Manager, 424
migrating from Planning to Calculation Manager, 415
opening, 248
pasting, 255
pasting children of a component and, 256
pasting the reference to a component, 257
printing, 260
refreshing, 272
saving, 258
saving with different names, 258
validating, 405
viewing the usages of, 246, 251, 254, 273
rulesets
  adding a business rule to, 266
  adding a rule or ruleset to, 268
  changing the owner of, 274
  copying, 269
  creating, 262
  deleting, 272
deploying, from the Deployment View, 409
deploying, from the Ruleset Designer, 410
deploying, overview of, 407
described, 261
editing, 267
editing properties of, 268
entering properties for, 263
exporting, 431
importing, 433
making deployable, 408
opening, 265
opening a business rule in, 265
opening a rule or ruleset in, 268
pasting, 269
refreshing, 272
removing a business rule from, 266
removing a rule or ruleset from, 268
saving, 270
saving with different names, 271
validating, 405
viewing the usages of, 264, 269, 273

S
S-T-D, Season-to-date, 122
sample tables
  Performance Management Architect, 61
saved assumptions, 524
saving
  business rules, 258, 271, 310
  business rules with different names, 258
  business rulesets, 270
  business rulesets with different names, 271
custom defined templates, 310
  with a different name, 310
Scale, 509, 527
scaling, 527
Scenario
  access permissions, defining, 531
deleting, 531
deployment, required for, 531
process management, enabling for, 530
time periods, defining, 531
Scenario dimension type
description, 46
Scenario properties
consolidation, 499
Scenario properties, for Planning, 530
Scenarios
  exchange rate tables, defining, 531
script components
  changing the owner of, 274
  exporting, 431
  importing, 433
  validating, 405
Script Editor, using to edit business rules, 252
script mode
  editing business rules in, 252
scripts
  searching in, 251, 253, 255, 329
  searching in a calc script, 246, 251, 253, 255, 329
security, 30
  for displaying jobs, 468
  for submitting jobs, 468
  in job console, 468
Security As Partner, 498
Security Class, 493, 496, 498, 500, 512
Security Class dimension type
description, 46
Security For Accounts, 503
Security For Custom, 503
Security For Entities, 504
Security For ICP, 504
Security For Scenarios, 504
Set Base Member, not using in Planning, 121
SET Commands template
described, 280
setting up, 511
setting up Alias dimensions, 78
setting up ICP, 511
settings
  Enable Logging setting, 244, 250, 253, 264, 269
  Enable Timer setting, 245, 250, 253, 264, 269
Share Data, setting for shared members, 520
Share option, 520
shared members
  creating, 118
  setting Data Storage to ShareData, 122
  working with, 121
Shared Services taskflows
  deleting permissions, 485
  editing permissions, 484
  viewing participant details, 488
  viewing participant status, 487
ShareData
  deployment with, 122
access for shared members, 122
SharesOutstanding account, 510
SharesOwned account, 510
shortcuts
creating, to a business rule, 259
shortcuts, deploying business rules with, 411
Siblings member query function, 580
single currency, redeploying, 210
Skip options, 525
Skip Value setting, 523
Smart List dimension type
description, 46
Smart Lists
and data entry, 100
naming considerations, 101
representing #missing, 103
setting properties, 102
using in formula expressions, 137
working with, 100
Source Plan Type, 524
source plan type, and accounts, 522
sparse dimensions, 77
and performance, 162
effect of changing to dense, 534
spreading data, 162
Start Month, 519
requirements for deploying, 203
requirements for redeploying, 210
Start Year, 519, 531
described, 533
format for, 203
requirements for redeploying, 210
Start Year property, 153
Store Data option, 520
Submission Group, 493, 496, 512
summary time periods
changing the range, 529
creating, 529
Support Submission Phase for Account, 504
Support Submission Phase for Custom, 504
Support Submission Phase for ICP, 504
Switch Sign For Flow, 497
Switch Type For Flow, 497
synchronizations
creating mapping tables, 450, 453
saving, 449
synchronizing
data, 438
synchronizing data, 437
system accounts
active account, 510
Consol1...3 account, 510
DOWN account, 510
method account, 510
PCON account, 510
PCTRL account, 510
POWN account, 510
SharesOutstanding account, 510
SharesOwned account, 510
VotingOutstanding account, 510
VotingOwned account, 510
System Properties, using Dimension Alias, 77
system templates
Financial Management, described, 278, 279
Planning and Essbase, described, 279
inserting into a flow chart, 296
removing from a flow chart, 297
saving as custom defined templates, 295
searching for, 314
using in a business rule, 280
using the Aggregation template, 290
using the Allocate Level to Level template, 285
using the Allocate Simple template, 287
using the Amount–Unit–Rate template, 284
using the Clear Data template, 282
using the Copy Data template, 283
using the Export Data template, 291
using the SET Commands template, 292
system variables, loading, 400
System View
described, 236
T
tables
mapping, 448
target versions, description, 532
task automation
prerequisites, 474
taskflows
adding links, 480
copying, 482
creating, 475
creating data synchronization, 476
creating flat file imports, 476
creating interface table imports, 477
creating redeployment, 477
creating stages, 478
deleting, 482
editing, 481
managing, 474
running manually, 482
stopping, 487
viewing, 481
viewing status, 485

templates
changing the owner of, 274
custom defined
copying and pasting, 312
creating, 298
creating design time prompts for, 301
creating from components, 309
defining a default value for design time prompts, 307
defining dependencies for design time prompts, 307
defining dimension limits for design time prompts, 306
deleting, 312
described, 298
designing, 299
editing, 309
inserting into a flow chart, 313
opening, 309
refreshing, 311
removing from a flow chart, 314
saving, 310
saving with a different name, 310
selecting design time prompts for, 305
showing the usages of, 311
described, 277
searching for, 314

system
Financial Management, described, 278, 279
Planning and Essbase, described, 279
removing from a flow chart, 297
using in a business rule, 280
using the Aggregation template, 290
using the Allocate Level to Level template, 285
using the Allocate Simple template, 287
using the Amount–Unit–Rate template, 284
using the Clear Data template, 282
using the Copy Data template, 283
using the Export Data template, 291
using the SET Commands template, 292
system templates
Aggregation, 280
Allocate Level to Level, 279
Allocate Simple, 279
Amount–Unit–Rate, 279
Clear Data, 279
Copy Data, 279
Export Data, 280
SET Commands, 280
Thousands Separator, 526
time balance calculations, 525
time balance property, 523
time balance property examples, 524
time dimension type, 167
description, 46
time periods
changing, 532
defining for Scenario, 531
practical limit, 529
time periods dimension, about, 529
To Percent Control, 506
To Percent Control Compare, 506
tools
EPM Workspace, 228
Calculation Manager, 228, 229
Performance Management Architect, 33
Standard, 229
Workspace, 33
tools menu, 232
Translation Operator, 509
triangulation, 527
triangulation currency, consequence of deleting, 211
troubleshooting deploying for Planning, 203, 532
troubleshooting redeploying for Planning, 210, 532,
533
Two Pass Calc, 522
Two Pass Calculation option, 520
types of dimensions, 45

U
UDA, 500
UDAs
HSP_NOLINK, 535
HSP_UDF, 535
multiple, 520
Planning, 520
working with, 132
Unicode Mode option, 219
usages
of custom defined templates
showing, 311
viewing, of a business rule, 246, 251, 254, 273
viewing, of a business ruleset, 264, 269, 273
Use Beginning Balance, 529, 531
Use PVA For Balance Accounts, 503
Use PVA For Flow Accounts, 503
Used By Calc Routine, 506
User Defined1...3, 493, 497, 499, 501
Uses Line Items, 493, 501

V
Valid for plan setting
and Account members, 522
and Entity members, 519
validating
applications, 200, 201
data synchronizations, 458
data synchronizations from data flow, 200
validation, 175
Validation Account, 504
validation conditions
  Profitability, 207
validation criteriaProfitability and Cost Management, 175
Value dimension type
description, 46
value members
  editing, 512
  system generated, 511
variables
  copying, 399
  loading system (Financial Management only), 400
variance reporting, 523
variance reporting and Account type, 524
Version
  bottom-up, 532
  required for Planning deployment, 531
target, 532
Version dimension type
description, 46
Version Type, 532

Versions
  process management, enabling for, 532
view
  filtering synchronizations, 456
View dimension type
description, 46
View menu, 231
View Pane, described, 239
viewing
data flow, 198
viewing application membership
dimension library, 84
viewing dimension associations
dimension library, 82
viewing import profiles, 71
views
  Custom view, described, 237
  Deployment described, 238
  List View, described, 234
  System View, described, 236
  using in Calculation Manager, 234
VotingOutstanding account, 511
VotingOwned account, 510

W
W-T-D, Week-to-date, 122
weekly distribution patterns, 162
Weeks, 519
weeks, requirements for redeploying, 210
Weighted Average time balance properties, 525

X
XBRL Tags, 493

Y
Y-T-D, Year-to-date, renaming Year member, 122
Year
  requirements for deploying, 203
Year dimension, 532
Year dimension type
description, 47
Year dimension, described, 532
Year-to-date, renaming Year, 122
years
  adding to calendar, 532
  changing current, 532
maximum, 529
No Year member, described, 533
practical limit, 529
requirements for redeploying, 210
YearTotal member
   editing, 529
   required for deployment, 529

Z
Zero View For Adjustments, 501
Zero View For Non-adjustments, 501
zeros in Account calculations, 525