

ORACLE® ESSBASE SPREADSHEET ADD-IN

RELEASE 11.1.1



Spreadsheet Add-in User's Guide, 11.1.1

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Contents

Chapter 1. Introduction to Essbase	7
About Essbase	7
Typical Users of Essbase	8
Components of the Client-Server Environment	8
Essbase Server	8
Spreadsheet Add-in	9
The Network	9
Essbase Application Products	9
Spreadsheet Toolkit	9
Essbase Partitioning Option	9
Essbase Structured Query Language Interface	9
Essbase Application Programming Interface	0
Essbase Currency Conversion	0
Integration Services	0
Developer Products	0
Data Mining	0
The Multidimensional Database	1
Database Outlines	2
Dimensions	4
Members	4
Attributes	5
Formulas	5
Aliases	5
Consolidations	5
Chapter 2. Basic Tutorial	7
About the Basic Tutorial	7
Getting Acquainted with Spreadsheet Add-in	7
Registering Spreadsheet Add-in	8
Loading Spreadsheet Add-in 1	8
Starting Spreadsheet Add-in 1	9
Installing the Essbase Toolbar for Excel	9

	Using the Essbase Toolbar
	Accessing Online Help
	Enabling Mouse Actions
Tu	torial Prerequisites
	Enabling Compatibility with Smart View
	Setting Essbase Options
	Following Guidelines During the Tutorial
	Reviewing the Sample Basic Database
Re	trieving Data
	Connecting to a Database
	Changing a Password (Optional)
	Retrieving Data from a Database
	Canceling a Data Retrieval Request
	Restoring the Previous Database View
	Drilling Down to More Detail
	Drilling Up to Less Detail
	Customizing Drill-Down and Drill-Up Behavior
Piv	roting, Retaining, and Suppressing Data
	Pivoting Rows and Columns
	Retaining a Data Subset
	Removing a Data Subset
	Navigating Through the Worksheet Without Retrieving Data
	Suppressing Missing Values, Zero Values, and Underscore Characters 53
Fo	rmatting the Worksheet
	Formatting Text and Cells
	Displaying Aliases for Member Names
	Displaying Both Member Names and Aliases
	Repeating Member Labels
	Working with Duplicate Member Names
Cr	eating Queries Using Query Designer
	About Creating and Changing Queries
	Creating Queries
	Saving Queries
	Applying Queries
	Deleting Queries
	Viewing Messages and Confirmations
	Accessing Help
	Connecting to Multiple Databases from Query Designer
	Applying Worksheet Options to Query Designer Results

	Selecting Members
	Saving and Disconnecting
	Saving a Worksheet
	Disconnecting from Essbase
	Logging Off
	On to Advanced Tasks
Chapter :	3. Advanced Tutorial
	About the Advanced Tutorial
	Connecting to a Database93
	Setting Essbase Options
	Performing Advanced Retrieval Tasks99
	Filtering Data 100
	Sorting Data
	Retrieving Data into Asymmetric Reports
	Drilling Down to a Sample of Members (Optional)
	Working with Formatted Worksheets
	Preserving Formulas When Retrieving Data
	Retrieving a Range of Data
	Retrieving Data by Using a Function
	Retrieving Dynamic Calculation Members
	Specifying the Latest Time Period for Dynamic Time Series
	Using Free-Form Reporting to Retrieve Data
	Retrieving Data Using Visual Explorer
	Using Linked Reporting Objects
	Linking a File to a Data Cell
	Linking a Cell Note to a Data Cell
	Linking a URL to a Data Cell
	Accessing and Editing Linked Reporting Objects
	Connecting to Multiple Databases (Optional)
	Ways to View Active Database Connections
	Access Methods for Linked Partitions
	Updating Data on Essbase Server
	Database Calculation
	Creating Multiple Worksheets from Data
	Working with Currency Conversions
	Retrieving Currency Conversion Data
	Connecting to the Sample Currency Databases
	Performing Ad Hoc Currency Reporting

Chapter 4. Drill-Through Tutorial	173
About the Drill-Through Tutorial	173
Understanding Drill-Through	173
About the Drill-Through Wizard	175
Before You Start	176
Setting Essbase Options	177
About the Samples Used in This Tutorial	182
Accessing Drill-Through Reports from the Spreadsheet	183
Selecting Drill-Through Reports to View or Customize	189
Selecting and Ordering Columns	194
Ordering Data	196
Filtering Data	198
Disconnecting from Essbase	204
Glossary	205
Index	229

Introduction to Essbase

1

In This Chapter

About Essbase	7
Typical Users of Essbase	8
Components of the Client-Server Environment	8
Essbase Application Products	g
The Multidimensional Database	
Database Outlines	

About Essbase

Oracle Essbase is multidimensional database software that is optimized for planning, analysis, and management-reporting applications. Essbase uniquely blends an innovative technical design with an open, client-server architecture. The product enables you to extend decision support systems beyond ad hoc queries and reports on historical performance to dynamic, operational systems that combine historical analysis and future planning.

By consolidating and staging historical and projected data for detailed analysis, you gain perspectives about your business that enable you to take appropriate actions.

Essbase provides both power and flexibility. Thus, it can be used for a broad range of online analytical processing (OLAP) applications, including those in this list:

- Budgeting
- Forecasting and seasonal planning
- Financial consolidations and reporting
- Customer and product profitability analysis
- Price, volume, and mix analysis
- Executive information systems

Essbase enables you and others in the organization to share, access, update, and analyze enterprise data from any perspective and at any level of detail without learning new tools, query languages, or programming skills.

Typical Users of Essbase

Essbase can be used in many different applications. Financial analysts have found the product to be invaluable in budget analysis, currency conversion, and consolidation. Cost accountants apply its powerful capabilities to evaluate allocation and elimination scenarios. Product managers and analysts use it to plan and analyze multiple product lines and distribution channels. You can also use the product as a repository database for spreadsheet data. Anyone who uses a spreadsheet is a potential user of Essbase.

Because Essbase is applicable to such a broad variety of environments, individuals using it at an organization may fill one or more roles in implementing and running applications. This guide refers to specific roles by three titles. A role may be performed, however, by one person or by several people working collaboratively.

- System administrator— Typically has experience in networking, installing software packages, and administering system functions. In addition to installing the Essbase software, the Essbase system administrator may also set up Essbase user accounts, set up the security system, and maintain the Essbase Server.
- Application designer—Sets up the Essbase database, creates the database outline, and
 develops calculation and report scripts. The responsibilities of the Essbase system
 administrator and the application designer may overlap in some areas. The application
 designer has probably developed spreadsheet or database applications and understands the
 operational problems and the tools being employed to solve them.
- User—Interacts with Essbase databases through spreadsheets, using Microsoft Office Excel
 (Excel). Users are typically analysts and managers who use spreadsheet programs as their
 primary tool for viewing and analyzing data.

Components of the Client-Server Environment

Client-server computing refers to the architecture in which individual computers are connected to a powerful server by means of a local area network (LAN). The computer acts as a client by requesting data from the server. The server processes the request and returns the desired result to the client.

Essbase is built as a client-server system. System performance and multiuser capabilities are greatly enhanced in the Essbase client-server environment.

Essbase Server

Essbase Server is a multidimensional database that supports analysis of an unlimited number of data dimensions and an unlimited number of members within these dimensions, developed using a true client-server architecture, All data, the database outline, the calculations, and the data security controls reside on the Essbase Server.

Spreadsheet Add-in

Oracle Essbase Spreadsheet Add-in is a software program that merges seamlessly with Excel. After Essbase is installed, a special menu is added to the spreadsheet application. The menu provides enhanced commands such as Connect, Pivot, Drill-down, and Calculate. Users can access and analyze data on Essbase Server by using simple mouse clicks and drag-and-drop operations. Spreadsheet Add-in enables multiple users to access and to update data on Essbase Server simultaneously.

The Network

Essbase runs on computer-based local area networks (LANs) that support the TCP/IP protocol.

Note:

Supported network environments and technical requirements are discussed in detail in the *Oracle Hyperion Enterprise Performance Management System Installation Start Here.*

Essbase Application Products

Several optional products, designed to extend and enhance the scope of OLAP applications, can be implemented using Essbase.

Spreadsheet Toolkit

Oracle's Hyperion® Essbase® Spreadsheet Toolkit includes over 20 macro and Visual Basic for Applications (VBA) functions that enable you to build customized Excel applications. The applications incorporate Essbase commands, such as EssCascade, EssConnect, and EssDisconnect, that provide all the functionality of their corresponding Essbase menu commands. See *Oracle Essbase Spreadsheet Add-in Online Help*.

Essbase Partitioning Option

Essbase Partitioning option enables you to define areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications. Partitioning provides more effective response to organizational demands, reduced calculation time, increased reliability and availability, and incorporation of detail and dimensionality. For more information on partitions, see "Access Methods for Linked Partitions" on page 158.

Essbase Structured Query Language Interface

SQL Interface enables access to structured query language (SQL) relational databases by making Essbase Server operate as an open database connectivity client. Using SQL Interface, data can

be moved easily from these diverse corporate data sources into Essbase Server for user access and analysis. For more information, see the *Oracle Essbase SQL Interface Guide*.

Essbase Application Programming Interface

Essbase Application Programming Interface (API) enables application developers to create custom applications quickly by using standard tools while taking advantage of the robust data storage, retrieval, and manipulation capabilities of Essbase. API supports Visual Basic and C. For more information on application programming, see the *Oracle Essbase API Reference*.

Essbase Currency Conversion

Essbase Currency Conversion translates, analyzes, and reports on foreign financial data. Any exchange rate scenario can be modeled, and you can even perform ad hoc currency conversions of data, directly from the spreadsheet. The Currency Conversion product is compliant with Financial Accounting Standards Board 52 (FASB52). For more information on conversions, see "Working with Currency Conversions" on page 167.

Integration Services

Oracle Essbase Integration Services works with Essbase and Excel. This product is a suite of tools and data integration services that serve as a bridge between relational, flat file, and SAP BW data sources and Essbase Server. Integration Server drill-through is one of the tools of Integration Services. Using Integration Server drill-through, you can view and customize spreadsheet reports that display data retrieved from relational databases. For more information on the drill-through tool, see Chapter 4, "Drill-Through Tutorial."

Developer Products

Essbase developer products enable the rapid creation, management and deployment of tailored enterprise analytic applications—with or without programming knowledge.

The products (for example, Application Builder, and Oracle's Hyperion® Application Builder for .NET) provide a comprehensive set of application programming interfaces, drag and drop components and services.

Data Mining

Data Mining reveals hidden relationships and patterns in your data, enabling you to make better business decisions. Using Data Mining you can plug in various data mining algorithms, build models, and then apply them to existing Essbase applications and databases.

The Multidimensional Database

The Essbase multidimensional database stores and organizes data. It is optimized to handle applications that contain large amounts of numeric data and that are consolidation-intensive or computation-intensive. In addition, the database organizes data in a way that reflects how the user wants to view the data.

Definition of Multidimensional

A *dimension* is a perspective or view of a specific dataset. A different view of the same data is an *alternate dimension*. A system that supports simultaneous, alternate views of datasets is *multidimensional*. Dimensions are typically categories such as time, accounts, product lines, markets, budgets, and so on. Each dimension contains additional categories that have various relationships one to another.

An Essbase application contains an unlimited number of dimensions, so you can analyze large amounts of data from multiple viewpoints. Figure 1 shows four views of multidimensional data. You can retrieve and analyze multidimensional data with the Spreadsheet Add-in software.

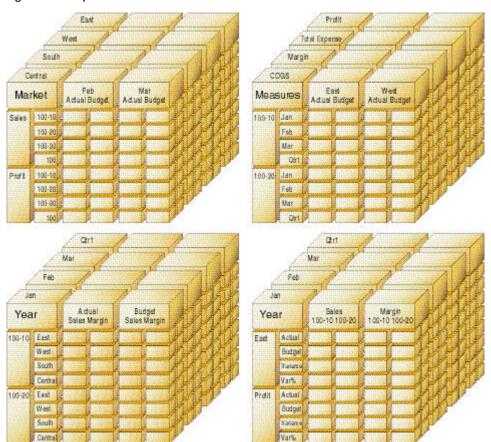


Figure 1 Multiple Views from a Five-Dimensional Database

In contrast to the multidimensional view, worksheets store data in two dimensions, usually time and accounts (see Figure 2):

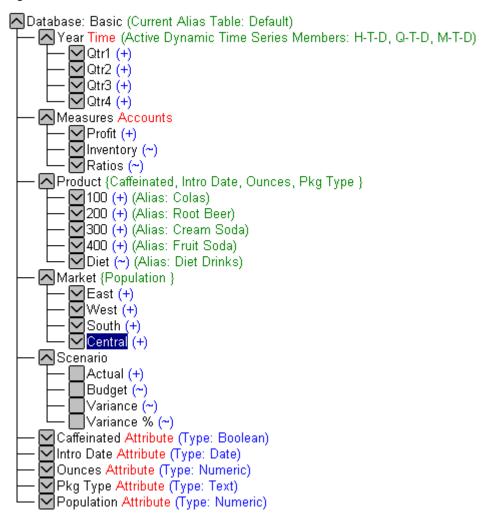
Figure 2 Two-Dimensional Representations of Data in a Worksheet

	Α	В	С	D	E	F	G
1		Jan	Feb	Mar	Арг	May	Jun
2	Sales	1212	1421	1354	1178	1254	1465
3	COGS	345	392	387	321	320	401
4	Margin	867	1029	967	857	934	1064
5							
6	Marketing	46	24	95	11	56	5
7	Freight	21	71	93	23	88	21
8	Discounts	2	24	52	14	53	59
9	Total Expenses	69	119	240	48	197	85
10							
11	Gross Profit	798	910	727	809	737	979

Database Outlines

Understanding the *database outline* is the key to understanding Essbase. To define a multidimensional database, you design its database outline. The database outline contains the database organization (structure), the database members, and the database rules, as shown in Figure 3:

Figure 3 Essbase Database Outline



The application designer or Essbase system administrator usually creates the database outline. For more information on creating the database outline, see the *Oracle Essbase Database Administrator's Guide*.

The components of the database outline are as follows:

- Dimensions
- Members
- Attributes
- Formulas
- Aliases
- Consolidations

Refer to these topics for descriptions of the outline components.

Dimensions

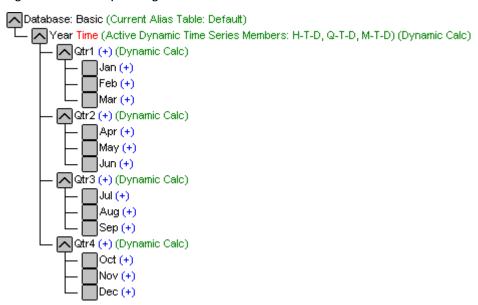
Dimensions are the most basic categorical definitions of data within the database outline. You need at least two dimensions to make any meaningful reference to data; for example, a time dimension and an accounts dimension. Other dimensions may categorize products, markets, and scenarios. Using dimensional organization, you can define any consolidation structure or any slice of data that is relevant to the application. Essbase supports an unlimited number of dimensions.

Members

Members are the names of the elements within a dimension. A dimension can contain an unlimited number of members. The calculation, reporting, and dimension-building features in Essbase use these terms to describe members.

• Parents— Members with consolidation branch below them. Figure 4 shows an example of Qtr1 as a parent member because below Qtr1 is a branch containing months as members.

Figure 4 Relationships Among Database Members



- Children Members with parents above them. For example, Jan, Feb, and Mar are children of the parent Qtr1.
- Siblings—Child members of the same parent and on the same branch (same level). For example, Jan, Feb, and Mar are siblings. Apr is not a sibling of Jan, Feb, or Mar, however, because it has a different parent, Qtr2.
- Descendants— Members at any level below a parent. For example, each member that falls in the Year branch is a descendant of Year. These members are all descendants of Year: Qtr1, Jan, Feb, Mar; Qtr2, Apr, May, Jun; Qtr3, Jul, Aug, Sep; Qtr4, Oct, Nov, Dec.
- Ancestors—Members of a branch above a member. For example, Qtr2 and Year are ancestors of Apr.

- Generations. Branch numbers of members. Generations count from the root of the tree (generation 1, which is the dimension name) toward the leaf node.
- Levels.Branch numbers of members. Levels count from the leaf node (level 0) toward the root (the dimension name).

Attributes

Attributes describe characteristics of data, such as the size and color of products. Through attributes, you can group and analyze members of dimensions based on their characteristics. Attribute dimensions must be associated with base dimensions. For more information, see the *Oracle Essbase Database Administrator's Guide*.

Formulas

Each database member can be associated with one or more formulas in the database outline. For example, the Variance members of the Scenario dimension (see Figure 3 on page 13), contain formulas. Formulas can be simple or complex. For more information on formulas, see the *Oracle Essbase Database Administrator's Guide*.

Aliases

Essbase supports alternative names, or aliases, for database members. Aliases are useful when various labels are used for the same member in various worksheets. One worksheet, for example, may refer to Cost_of_Goods_Sold as COGS. Aliases also can be used for reporting in alternative languages or for more formal output name sets, such as account numbers.

Consolidations

Consolidations in Essbase applications are defined by member branches. The database outline determines consolidation paths. The determination is based on the location of members within a dimension. Indentation of one member below another indicates a consolidation relationship. Indenting members is important for the drill-down capabilities in Spreadsheet Add-in. As you navigate through data, you can drill down through levels of consolidations. The database outline is the roadmap that determines the levels of data navigation.

Basic Tutorial

2

In This Chapter

About the Basic Tutorial	17
Getting Acquainted with Spreadsheet Add-in	17
Tutorial Prerequisites	24
Retrieving Data	29
Pivoting, Retaining, and Suppressing Data	42
Formatting the Worksheet	55
Creating Queries Using Query Designer	69
Selecting Members	82
Saving and Disconnecting	89
On to Advanced Tasks	91

About the Basic Tutorial

When you add Spreadsheet Add-in to Excel, most spreadsheet operations remain unchanged; Spreadsheet Add-in adds an Essbase menu and toolbar, and mouse shortcuts with which you can access Essbase applications and databases.

Basic tasks are described in this tutorial chapter. These are tasks that you probably use often when working with Essbase. Chapter 3 describes more advanced tasks.

Tasks must be completed in succession as each tutorial task builds upon the previous task.

The examples in this tutorial are based on the Sample Basic database that is included with the Essbase installation. Contact the Essbase system administrator for information about accessing the Sample Basic database or about accessing other databases on Essbase Server.

Getting Acquainted with Spreadsheet Add-in

This following topics will help you to get acquainted with Spreadsheet Add-in:

- "Registering Spreadsheet Add-in" on page 18
- "Loading Spreadsheet Add-in" on page 18
- "Starting Spreadsheet Add-in" on page 19
- "Installing the Essbase Toolbar for Excel" on page 19

- "Using the Essbase Toolbar" on page 20
- "Accessing Online Help" on page 21
- "Enabling Mouse Actions" on page 22

Registering Spreadsheet Add-in

During installation, Spreadsheet Add-in is automatically registered with Excel and included in your computer's registry entries.

You may unregister Spreadsheet Add-in from Excel. Unregistering clears the registry entries and removes the Essbase menu from Excel; however, it leaves the Spreadsheet Add-in components on your computer.

To put the Spreadsheet Add-in back into Excel, you can run the register program manually.

- To manually register Spreadsheet Add-in, select Start, then Programs, then Oracle EPM System, then Essbase, then Essbase Client, then Register Spreadsheet Add-in.
- To unregister Spreadsheet Add-in, select Start, then Programs, then Oracle EPM System, then Essbase, then Essbase Client, then Unregister Spreadsheet Add-in.

Loading Spreadsheet Add-in

If you manually update your environment settings or if you removed Spreadsheet Add-in from the Excel environment, you must use the Excel add-in tool to load Spreadsheet Add-in in Excel. Loading Spreadsheet Add-in adds the Essbase menu to the Excel menu bar and points Excel to the Spreadsheet Add-in file (essexcln.xll) in HYPERION_HOME/products/Essbase/EssbaseClient/bin.

- To load Spreadsheet Add-in in Excel:
- 1 In Excel, select Tools, then Add-Ins.
- 2 In Add-ins, click Browse.

The Browse dialog box is displayed.

3 Locate essexcln.xll and select it.

The file is in the <code>HYPERION_HOME/products/Essbase/EssbaseClient/bin directory</code> where you installed Spreadsheet Add-in.

4 Click **OK** twice to close the dialog boxes.

Loading Spreadsheet Add-in in Excel modifies the Windows Registry to point to where the Spreadsheet Add-in file is installed.

5 Start Spreadsheet Add-in.

If Excel does not contain an Essbase menu, see the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Troubleshooting Guide*.

Starting Spreadsheet Add-in

- To use Spreadsheet Add-inand begin an Essbase session:
- 1 Start Excel.

The Essbase menu should be displayed in the Excel menu bar. If it is not, you may need to use the add-in tool to load Spreadsheet Add-in (see "Loading Spreadsheet Add-in" on page 18).

In Excel, the Essbase toolbar should be viewable. If you do not see the Essbase toolbar, see "Installing the Essbase Toolbar for Excel" on page 19 and "Using the Essbase Toolbar" on page 20.

2 From the Excel menu bar, select **Essbase** to display the **Essbase** menu.

Installing the Essbase Toolbar for Excel

In Excel, Spreadsheet Add-in provides a convenient toolbar that displays icons for accessing most of the common Essbase commands without having to open the Essbase menu.

Prior to using the Essbase toolbar, you must install the toolbar by opening an Excel file that is provided as part of the default Essbase installation. See "Using the Essbase Toolbar" on page 20.

- To install the Essbase toolbar:
- 1 Start Excel.
- 2 Select File, then Open.
- **From** HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, **open** esstoolb.xls.

A blank worksheet opens.

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. If you cannot locate the file, contact the Essbase system administrator.

Note:

Upon using Excel, two dialog boxes may be displayed warning that the esstoolb.xls file may contain macros. If so, click the Enable Macros button on the first dialog box, and click OK on the second dialog box. The macros must be enabled for the Essbase toolbar to work.

4 Select File, then Close, to close the esstoolb.xls file.

You do not need to modify or save the file.

You do not need to install the toolbar again unless you delete the Essbase toolbar from the Excel Toolbars dialog box.

If you have toolbars turned off in Excel, you do not see the Essbase toolbar immediately. You must first enable toolbars. See "Using the Essbase Toolbar" on page 20.

Using the Essbase Toolbar

Spreadsheet Add-in features a convenient toolbar that displays icons for accessing most of the common Essbase commands without having to open the Essbase menu. You can view a description of an icon on the toolbar by moving your cursor over the icon.

Note:

Before you can view the Essbase toolbar, you must install it. See "Installing the Essbase Toolbar for Excel" on page 19.

Table 1 lists the icons on the toolbar.

To view the Essbase toolbar, from the Excel menu bar, select View, then Toolbars, then Essbase.

A check box must be displayed next to Essbase in the menu.

Note:

If you select the Essbase option and click Delete, you must reinstall the toolbar. See "Installing the Essbase Toolbar for Excel" on page 19 for instructions.

Table 1 Essbase Toolbar Icons

Icon	Purpose	Description				
\$	Connect	Enables you to connect to an instance of Essbase Server. Click the Connect icon on the toolbar to display the Essbase System Login dialog box.				
№	Navigate with or without data	Toggles the Navigate Without Data feature, which tells Essbase to retrie or not to retrieve data when you perform navigational operations, such pivot, drill down, drill up, keep only, and remove only.				
		This icon serves the same function as the Navigate Without Data option in the Essbase Options dialog box (Global page).				
◎!	Retrieve	Retrieves data into the active worksheet. A retrieve request places data at the beginning of the active worksheet. When you click the Retrieve icon, if you are not already connected to an instance of Essbase Server, the Essbase System Login dialog box is displayed.				
		Tip: If you have mouse actions enabled, you can retrieve data by double-clicking the primary mouse button in any empty cell in the worksheet. To enable double-click support, select Essbase, then Options, select Global, and select Enable Double-Clicking. For more information, see "Enabling Mouse Actions" on page 22.				

Icon	Purpose	Description
& *	Keep only	Retains only the selected member (the active cell) or member range in the worksheet. Click the Keep Only icon to remove all unselected members from the worksheet.
* 🐉	Remove only	Removes the selected member (the active cell) or member range from the worksheet. Click the Remove Only icon to retain all unselected members in the worksheet.
(22)	Zoom in	Retrieves and expands data from Essbase according to the options specified in the Essbase Options dialog box.
		When sampling is enabled [Essbase, then Sample Data (Zoom In)], an approximate percentage members of the Essbase database that you specify is queried when you retrieve and expand data.
		Tip: If you have mouse actions enabled, you can drill down on data by double-clicking the primary mouse button in the cell that contains the member you want to expand. To enable double-click support, select Essbase, then Options, select Global, and select Enable Double-Clicking. For more information, see "Enabling Mouse Actions" on page 22.
	Zoom out	Collapses the view according to the options specified in the Essbase Options dialog box in the cell that contains the member that you want to collapse. To enable double-click support for drilling up, select Essbase, then Options, select Global, and select Enable Double-Clicking.
	Open Query Designer	Opens Query Designer, which makes it easy to define a page orientation for dimensions and selected database members. You can also save queries for later use. Query Designer is designed to create report queries, view attributes, and perform calculations based on attributes.
% 0	FlashBack	Restores the previous worksheet view.
	Set options	Enables you to set display, zoom, mode, style, and global options for the active worksheet to customize the behavior of Spreadsheet Add-in software. Click the Options icon to display the Essbase Options dialog box.
8 - -	Select Members	Enables you to select members from the multidimensional database outline. Click the Member Selection icon to display the Essbase Member Selection dialog box.
₽	Attach Linked Objects	Enables you to attach comments or files to data cells. Click the Attach Linked Objects icon to display the Linked Objects Browser dialog box.

Accessing Online Help

Spreadsheet Add-in includes a context-sensitive online help system.

- ➤ To access *Oracle Essbase Spreadsheet Add-in Online Help*, choose one option:
 - In Excel, select **Help**, then **Essbase Help**, to access the entire online help system and browse or search for information.

Browse or search through the system to view general information on Spreadsheet Add-in, Essbase command descriptions, procedural information for completing tasks, Spreadsheet Toolkit macros, and Visual Basic for Applications (VBA) function descriptions.

• In each Spreadsheet Add-in dialog box, click **Help** to access information specific to the particular dialog box.

The Help buttons enable you to find the information that you need without having to search the entire help system.

Note:

Oracle Essbase Spreadsheet Add-in Online Help provides a comprehensive section on Spreadsheet Toolkit, which enables you to customize and automate your use of Essbase by using macros and VBA functions.

• In Query Designer, click ? in the navigation pane to access Query Designer online help topics.

Enabling Mouse Actions

These terms are used throughout this guide to describe mouse operations:

- Primary mouse button and secondary mouse button describe the buttons on a two- or threebutton mouse.
 - Usually, right-handed users configure the left mouse button as the primary button and the right mouse button as the secondary mouse button. The primary mouse button is the one that you use to start Windows applications, the secondary mouse button is used for auxiliary operations. *Click* refers to use of the primary mouse button. The term *right-click* refers to use of the secondary mouse button.
- *Select* chooses the object that is under the cursor when you press and release the primary mouse button.
 - Select a worksheet cell, for example, by moving the cursor to the cell and pressing and releasing the primary mouse button.
- *Click* (that is, both *click* and *right-click*) describes a quick press-and-release action on a command object.
 - Click a button, for example, to execute a command.
- *Double-click* describes two quick press-and-release actions that are executed in rapid succession.
 - Double-click an application icon, for example, to start a Windows application.
- *Drag* describes a press, hold, and move action.
 - Place the cursor on an object, press a mouse button, hold the mouse button down as you move the object, and release the mouse button when you reach your goal. For example, you can highlight a range of cells in a worksheet by dragging the cursor over the cells.

Essbase uses a drag operation called a *pivot*. A pivot requires use of the secondary mouse button. To execute a pivot, you must press and hold the secondary, rather than the primary, mouse button while dragging the selection.

Essbase offers enhanced mouse actions in Excel. You can use the mouse to perform any of these tasks:

- Retrieve data
- Drill down and drill up on database members
- Pivot (move or transpose) data rows and columns
- Access linked reporting objects
- Access linked partitions
- To enable double-clicking to retrieve, drill down, and drill up on Essbase data:
- 1 Select Essbase, then Options, and select Global.
- 2 Select Enable Double-Clicking.

When Enable Double-Clicking is selected (see Figure 5), you can retrieve and drill down to more detailed data (primary mouse button) and drill up to less detailed data (secondary mouse button). When double-clicking is enabled, the in-cell editing feature is overridden.

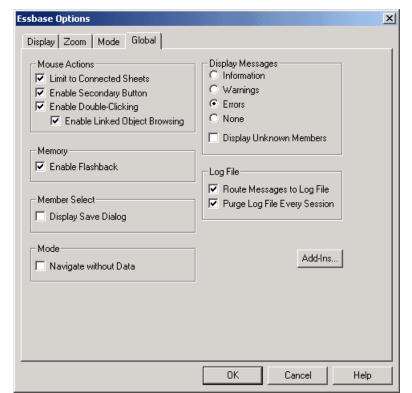


Figure 5 Essbase Options Dialog Box—Global Page

3 Click **OK** to return to the worksheet.

For information about setting the primary mouse button to display the Linked Objects Browser dialog box when you double-click a data cell, see *Oracle Essbase Spreadsheet Add-in Online Help*.

Tutorial Prerequisites

Before you begin the basic tutorial, read these important topics:

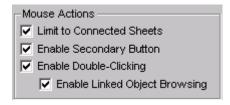
- "Enabling Compatibility with Smart View" on page 24
- "Setting Essbase Options" on page 24
- "Following Guidelines During the Tutorial" on page 28
- "Reviewing the Sample Basic Database" on page 29

Enabling Compatibility with Smart View

If Oracle Hyperion Smart View for Office, Fusion Edition is installed on the same computer as Spreadsheet Add-in, complete this procedure to ensure that Spreadsheet Add-in functions properly alongside Smart View.

- To enable compatibility between Spreadsheet Add-in and Smart View:
- 1 If you have not already done so, start Excel.
- 2 Select Essbase, then Options, and select Global.
- 3 Under Mouse Actions, select Limit to Connected Sheets (see Figure 6).

Figure 6 Option for Compatibility Between Spreadsheets



When Spreadsheet Add-in and Oracle Hyperion Smart View for Office, Fusion Edition are installed on one computer, and this option is selected, mouse clicks are ignored by Spreadsheet Add-in if the sheet being acted upon is connected to a data source other than an Essbase application and database (for example, a Oracle Hyperion Planning, Fusion Edition data source).

4 Click **OK** to return to the worksheet.

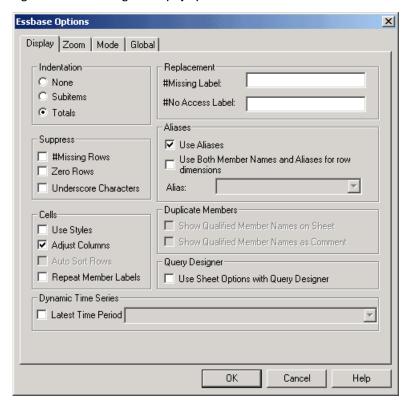
Setting Essbase Options

Before you begin the tutorial steps, make sure that the worksheet options are set to the initial settings as illustrated in Figure 7 through Figure 10. If the option settings are different, the illustrations presented in this chapter may not match the worksheet view.

For information about each option in the Essbase Options dialog box, see *Oracle Essbase Spreadsheet Add-in Online Help*.

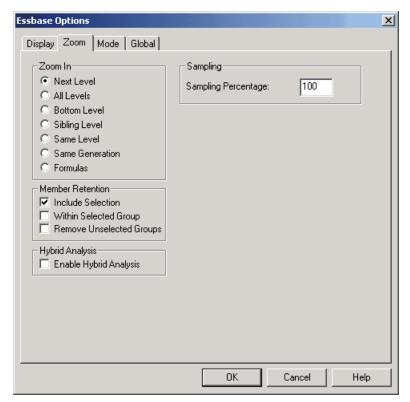
- To set worksheet options:
- 1 Select Essbase, then Options.
- 2 In Essbase Options, select Display.
- 3 Select display options to match those shown in Figure 7.

Figure 7 Initial Settings for Display Options



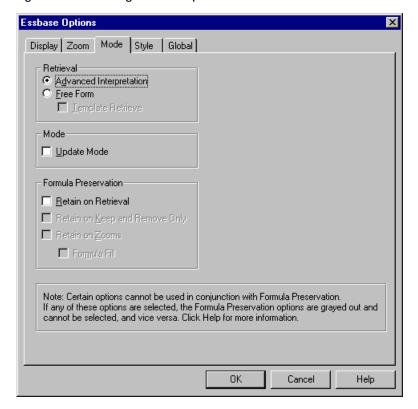
- 4 Select Zoom.
- 5 Select zoom options to match those shown in Figure 8:

Figure 8 Initial Settings for Zoom Options



- 6 Select Mode.
- 7 Select mode options to match those shown in Figure 9.

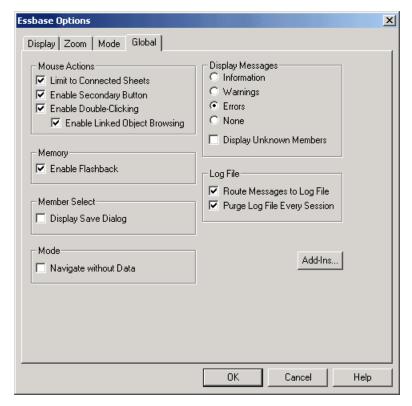
Figure 9 Initial Settings for Mode Options



If you are already connected to an Essbase database, Essbase Options displays a Style page. Skip this page for now.

- 8 Select Global.
- 9 Select options to match those shown in Figure 10.

Figure 10 Initial Settings for Global Options



You should have already selected the appropriate options for Mouse Actions, as described in "Enabling Mouse Actions" on page 22.

10 Click OK to save the settings for this session and close Essbase Options.

Following Guidelines During the Tutorial

Keep in mind these guidelines during this tutorial:

- Optional tasks should not be performed as part of the tutorial. These tasks are included for your future reference. For more information on these tasks, see Oracle Essbase Spreadsheet Add-in Online Help.
- You must be connected to the Sample Basic database during the tutorial. If you are not
 connected to this database, the illustrations presented in this chapter will not match the
 worksheet view.
- To access many Essbase commands:
 - Select the command from the Essbase menu
 - o Click the appropriate icon on the Essbase toolbar
 - For the Zoom In and Zoom Out commands, double-click either the primary or the secondary mouse button

- Set the options in the Essbase Options dialog box as described in "Setting Essbase Options" on page 24. If the option settings are different, the illustrations presented in this chapter may not match the worksheet view.
- After you change a worksheet option in the Essbase Options dialog box, you must perform a retrieval or a drill-down operation to have the new setting take effect.
- Be sure to follow each step in the tutorial. Each task builds upon the previous task. Do not
 skip the final steps at the end of sections, because these steps are often necessary to prepare
 you for the next tutorial task.
- If you make a mistake during the tutorial, you can select Essbase, then FlashBack, to return to the previous worksheet view.
- The values in the Sample Basic database that represent ratios or percentages are calculated to a very high level of precision (for example, 55.26162826). You can apply a cell format to control the number of decimal places that are displayed in data values. For details on applying cell formats, see the Excel documentation.
- Numeric values shown in the illustrations used throughout this tutorial may not match the
 values stored in your database. The values shown in these illustrations reflect a freshly loaded
 database.
- Some worksheet columns have been adjusted for clarity in the illustrations. You do not need
 to change the width of columns in the worksheet to follow the tutorial steps. The Adjust
 Columns option in the Display page of the Essbase Options dialog box adjusts columns for
 you.

Reviewing the Sample Basic Database

The Sample Basic database used in this tutorial is based on a hypothetical company in the beverage industry. The major products of the company are various kinds of sodas. These products are sold in U.S. markets, which are categorized by state and region. Financial data for the company is collected monthly and is summarized by quarter and by year. The company uses Essbase to calculate financial and accounting data, such as sales, cost of goods sold, and payroll. The company tracks both actual and budget data, as well as the variance and percent variance between the two.

Retrieving Data

Now that you are more familiar with the Essbase environment, you can connect to an instance of Essbase Server and start using Essbase and Spreadsheet Add-in. This section guides you through a typical Essbase session where you connect to a database and retrieve data in various ways.

This topic outlines these basic retrieval tasks:

- "Connecting to a Database" on page 30
- "Changing a Password (Optional)" on page 32
- "Retrieving Data from a Database" on page 32

- "Canceling a Data Retrieval Request" on page 34
- "Restoring the Previous Database View" on page 34
- "Drilling Down to More Detail" on page 35
- "Drilling Up to Less Detail" on page 38
- "Customizing Drill-Down and Drill-Up Behavior" on page 39

Make sure that you followed the steps in "Setting Essbase Options" on page 24. If the settings in the Essbase Options dialog box are different from the settings previously illustrated, the worksheet view will differ from the illustrations shown in this chapter.

Remember that you can perform common data retrieval tasks in any of these ways:

- Select commands from the Essbase menu on the Excel menu bar
- Double-click the primary or the secondary mouse button in the appropriate cell (for Retrieve, Zoom In, and Zoom Out commands)
- In Excel, click the appropriate icons on the Essbase toolbar

Connecting to a Database

To access Essbase data, you must first connect to a database on an instance of Essbase Server. This tutorial assumes that you have the appropriate privileges to connect to a server, an application, and a database.

To complete the steps that follow, you need to know the name of the server to which you want to connect, your user name, and your password. If you do not have this information, contact the Essbase system administrator.

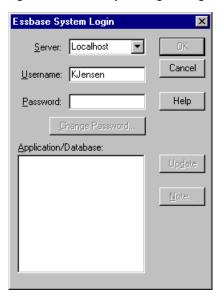
Note:

Essbase does not support multiple instances of Excel.

- To connect to an Essbase Server, application, and database:
- 1 Select Essbase, then Connect.

The Essbase System Login dialog box is displayed (see Figure 11).

Figure 11 Essbase System Login Dialog Box



- 2 From **Server**, select the server that you want to access, or enter the name of the server.
- 3 Enter your user name.
- 4 Enter your password.

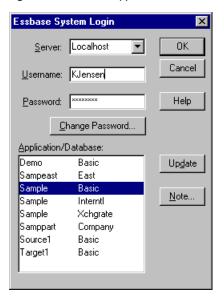
You can change your password when you are connected to a server. To change your password, see "Changing a Password (Optional)" on page 32.

5 Click OK to connect to the server.

A list of available application/database pairs is displayed in the Application/Database list box. Figure 12 shows an example of a list of application/database pairs. A single instance of Essbase Server enables simultaneous access to multiple applications. An application can contain multiple databases. Only the databases to which you have security access are shown in the list.

For this tutorial, you use the Sample Basic database. If the Sample Basic database was installed as part of the Essbase installation, it is shown in the list. If Sample Basic is not shown in the Application/Database list box, ask the Essbase system administrator to install it.

Figure 12 Available Application and Database Pairs



6 Select Sample Basic, and click OK.

If the application is not already running, Essbase automatically starts it. There may be a brief pause as the application loads. The time required to start an application depends on the number of databases, the sizes of the databases, and the sizes of the indexes of the databases contained within the application.

Changing a Password (Optional)

You can change your password only if you are connected to a server.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To change your password:
- 1 In Essbase System Login, click Change Password.
- 2 In Change Password, in New Password, enter your new password.
- 3 In Confirm Password, enter the password again.

The passwords must be identical.

- 4 Click **OK** to change your password.
- 5 Click OK again to close Essbase System Login.

Retrieving Data from a Database

Each time you retrieve information from an instance of Essbase Server, these actions occur:

- Spreadsheet Add-in requests data from the server.
- The server processes the request and prepares the data.
- The server transmits the data to Spreadsheet Add-in.
- The spreadsheet application receives the data from Essbase and organizes it in a worksheet.

To help you monitor these operations, Essbase uses three custom cursors, as described in Table 2.

Table 2 Essbase Custom Cursor

Cursor	When Displayed
	Spreadsheet Add-in requests information from Essbase Server.
	The server is processing the request.
	The server returns the data.

Note:

Small retrieval actions display the cursors very quickly; you may not notice changes in the direction of the arrow when retrieving small amounts of data.

- To retrieve data into an empty worksheet:
- 1 Select **File**, then **New**, or click to open a new worksheet.

Note:

You should be connected to the Sample Basic database. If you are not connected, follow the steps in "Connecting to a Database" on page 30.

2 Select Essbase, then Retrieve.

Essbase retrieves data into the worksheet.

Figure 13 Initial Data Retrieval from Sample Basic

	Α	В	С	D	E	F
1		Measures	Product	Market	Scenario	
2	Year	105522				
3						
4						
5						

Because you selected the Enable Double-Clicking option in the Essbase Options dialog box (Global page) in step 9 on page 27, you can double-click in an empty cell to retrieve data. You can also click the Retrieve icon on the Essbase toolbar.

When you retrieve data into an empty worksheet, Essbase returns data from the top levels of each database dimension. The top level is used as a starting point to navigate, or drill down, into levels of detailed data. In the Sample Basic database, these five dimensions are retrieved: Measures, Product, Market, Scenario, and Year.

Tip:

You can retrieve data by double-clicking in a data cell, selecting Essbase, then Retrieve, or by clicking the Retrieve icon on the Essbase toolbar.

Canceling a Data Retrieval Request

Occasionally, you may want to cancel a retrieval request. For instance, you may want to stop a request if a retrieval is taking longer than expected or if you mistakenly double-click.

Because Essbase returns data so quickly to the worksheet, you may not be able to cancel a retrieval before the retrieval is complete. The cancel feature is most useful when you need to stop a large retrieval request.

To cancel data retrievals, press Esc during a retrieval action.

Note:

You can cancel a retrieval *only* while Essbase is processing in Spreadsheet Add-in. You cannot cancel a retrieval when Essbase is processing from Essbase Server.

Restoring the Previous Database View

The FlashBack command restores the previous database view. A database view is what you see in the worksheet after a retrieval or navigation operation. FlashBack is similar to the Edit menu Undo command, which reverses the last action, with this difference. If you modify member information between retrieves and then perform a FlashBack, Essbase still flashes back to the spreadsheet data as it was prior to the last retrieve, in spite of any changes you may have made to members between retrieves. The FlashBack command uses the memory of your computer to store the current view before processing an Essbase retrieval request. You can use FlashBack to undo only the most recent operation. FlashBack cannot undo multiple operations.

Throughout this tutorial, you should follow all steps in the order that they are presented. If you make a mistake or find yourself out of step with the tutorial, you can use the FlashBack command from the Essbase menu or toolbar to undo the last command and return to the previous database view.

- To start the tutorial over from the beginning:
- 1 Select the entire worksheet, and select Edit, then Clear, then All
- 2 Press Enter or click OK to empty the worksheet and start again

You can disable FlashBack during normal operations to conserve memory on your local computer. Do *not* disable FlashBack for this tutorial.

- To disable Flashback (optional):
- 1 Select Essbase, then Options, and select Global.
- 2 Clear Enable FlashBack.

Note:

Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

Drilling Down to More Detail

You can drill down to various levels of multidimensional data in the worksheet. For example, if you want to view data for a specific quarter or month rather than an aggregate data value for the whole year, you can drill down on the Year dimension to see more detailed data.

- To drill-down on members, select one option:
 - Select the member, and select Essbase, then Zoom In.
 - Select the member, and double-click the primary mouse button.
 - Select the member, and click **Zoom In** on the Essbase toolbar.
- To drill down to lower levels of the Year dimension:
- 1 On Year in cell A2, double-click the primary mouse button.

The drill-down action retrieves data for the level below (the children of) Year: Qtr1, Qtr2, Qtr3, and Qtr4 (see Figure 14).

Figure 14 Result of Drilling Down on the Year Dimension

	Α	В	С	D	E	F
1		Measures	Product	Market	Scenario	
2	Qtr1	24703				
3	Qtr2	27107				
4	Qtr3	27912				
5	Qtr4	25800				
6	Year	105522				

For a discussion of the relationships among Essbase database members, see "Database Outlines" on page 12.

With Essbase, you can retrieve members into columns or rows that are grouped or nested. Row groups containing more than one level of data are nested within single-member row groups. For example, a row group containing Qtr1, Qtr2, Qtr3, and Qtr4 may be nested within a single-member row for a specific region, such as East (see Figure 15). Drilling down to lower levels of database members is one way to retrieve data into nested groups.

2 In cell D1, double-click to drill down on Market and create nested groups of rows down the worksheet.

Figure 15 Result of Drilling Down on the Market Dimension (Nested Rows)

	Α	В	С	D	E	F
1			Measures	Product.	Scenario	
2	East	Qtr1	5380			
3		Qtr2	6499			
4		Qtr3	6346			
5		Qtr4	5936			
6		Year	24161			
7	West	Qtr1	7137			
8		Qtr2	7515			
9		Qtr3	7939			
10		Qtr4	7270			
11		Year	29861			

Because worksheets can accommodate more rows than columns, Essbase is preset to retrieve data into rows when you drill down on a member. You can change this default behavior and display the results of a drill-down across columns. Drilling across columns applies only to the top-level member of a dimension (for example, Market or Scenario).

- To drill down on Scenario and retrieve its respective members into columns rather than rows:
- 1 Press and hold down the Alt key.
- 2 Double-click Scenario (in cell E1).
- 3 Release the Alt key.

Essbase displays the data in columns across the worksheet (see Figure 16).

Figure 16 Result of Drilling-Down on the Scenario Dimension (Nested Columns)

	Α	В	С	D	E	F	G
1			Measures	Product			
2			Actual	Budget	Variance	Variance %	Scenario
3	East	Qtr1	5380	6500	-1120	-17.23076923	5380
4		Qtr2	6499	7550	-1051	-13.9205298	6499
5		Qtr3	6346	7550	-1204	-15.94701987	6346
6		Qtr4	5936	6790	-854	-12.57731959	5936
7		Year	24161	28390	-4229	-14.89609017	24161
8	West	Qtr1	7137	8960	-1823	-20.34598214	7137
9		Qtr2	7515	9290	-1775	-19.1065662	7515
10		Qtr3	7939	9870	-1931	-19.56433637	7939
11		Qtr4	7270	9060	-1790	-19.75717439	7270
12		Year	29861	37180	-7319	-19.68531469	29861

4 Keep this worksheet open, but do not save it yet.

You use this worksheet again in "Drilling Up to Less Detail" on page 38.

You will open a new worksheet to complete the steps in "Drilling Down on Attribute Members" on page 37 and "About Drilling Down on Level 0 Attribute Members" on page 38.

Drilling Down on Attribute Members

You can use the Essbase attribute feature to retrieve and analyze in terms of characteristics, or attributes, of dimensions. For example, you can analyze product profitability based on the attributes of size or packaging. Attribute dimensions are associated with base dimensions.

You can use an attribute dimension to drill down on the base dimension with which it is associated. In the Sample Basic database, the Product base dimension is associated with several attribute dimensions, such as Caffeinated, Ounces, and Pkg_Type. Each attribute dimension consists of level 0 attribute members. Level 0 attribute members are the lowest level attributes that are associated with members of a base dimension. The Pkg_Type attribute dimension, for instance, has two level 0 members, Bottle and Can.

You can extract information on all products sold in a can by entering manually the name Can in the worksheet. You can also use Query Designer or the Essbase Member Selection dialog box to select the attribute and display it in the worksheet.

- To drill down on an attribute dimension:
- 1 Open a worksheet.
- 2 Connect to the Sample Basic database.
- 3 Select Essbase, then Retrieve.
- 4 Select **Product** and replace it with **Can** by typing Can manually.
- 5 Click anywhere outside of cell C1 and select Essbase, then Retrieve again.

Figure 17 displays the results:

Figure 17 An Attribute Member in a Report

	Α	В	С	D	Е
1		Measures	Can	Market	Scenario
2	Year	39578			

6 Drill down to all products sold in a can by double-clicking Can in cell C1.

Cola, Diet Cola, and Diet Cream are the members of Product that have the Can attribute. Figure 18 displays the results:

Figure 18 Result of Drilling Down on an Attribute Member

	Α	В	С	D	Е	F
1				Measures	Market	Scenario
2	Year	Can	Cola	22777		
3			Diet Cola	5708		
4			Diet Cream	11093		

About Drilling Down on Level 0 Attribute Members

The following description is of the general behavior of Spreadsheet Add-in when you drill down on a level 0 attribute member:

- If the level 0 attribute member is in a column, a drill-down pivots the attribute to the innermost row of the worksheet.
- If the level 0 attribute member is in a row, a drill-down does not change the position of the attribute in the worksheet.
- A drill-down on a level 0 attribute member displays the associated base members to the right of the level 0 attribute.
- If there is more than one level 0 attribute member in a worksheet, a drill-down on one attribute displays other attributes to the left of the level 0 attribute member. Level 0 attribute members in columns pivot to rows, and level 0 attribute members already in rows remain in rows.
- A drill-down on non-level 0 attribute members is the same as the current drill-down behavior for other types of members.

The drill-down behavior for non-level 0 attribute members is the same as the current drill-down behavior for other types of members. See *Oracle Essbase Spreadsheet Add-in Online Help* for examples of drilling down on level 0 attribute members. For more information on attributes, see *Oracle Essbase Database Administrator's Guide*.

Drilling Up to Less Detail

With Essbase, you can drill up to higher levels in the multidimensional database outline by collapsing the current member tree. For example, if you previously drilled down on a dimension, such as Scenario, to view data for Actual and Budget, you may need to drill up to view aggregate data for the Scenario dimension.

- To drill up on a member, use one option:
 - Select the member, and select Essbase, then Zoom Out.
 - Select the member, and double-click the secondary mouse button.
 - Select the member, and click **Zoom Out** on the Essbase toolbar.
- To drill up on the Scenario dimension in the current worksheet:
- 1 Return to the worksheet that you kept open in step 4 on page 37
- 2 On any member of the Scenario dimension (that is, cell C2, D2, E2, F2, or G2), double-click the secondary mouse button.

Essbase collapses the members of the Scenario dimension. The result is shown in Figure 19:

Figure 19 Result of Drilling Up on the Scenario Dimension

	Α	В	С	D	E	F
1			Measures	Product		
2			Scenario			Į
3	East	Qtr1	5380			
4		Qtr2	6499			
5		Qtr3	6346			
6		Qtr4	5936			
7		Year	24161			

3 In cell A3, double-click the secondary mouse button to drill up on East.

Essbase collapses East, West, South, and Central into the single Market dimension and keeps the dimension in the A column (see Figure 20).

Figure 20 Result of Drilling Up on East

	Α	В	С	D	E	F
1			Measures	Product		
2			Scenario			
3	Market	Qtr1	24703			
4		Qtr2	27107			
5		Qtr3	27912			
6		Qtr4	25800			
7		Year	105522			

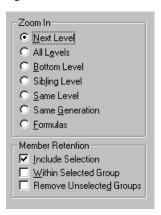
Customizing Drill-Down and Drill-Up Behavior

You can customize the behavior of the Zoom In and Zoom Out commands in the Essbase Options dialog box. These steps illustrate some drill-down and drill-up techniques.

- To retrieve *all* members of a dimension with a single drill-down operation:
- 1 Select **Essbase**, then **Options** and select **Zoom**.

Essbase displays the Zoom page, a portion of which is shown in Figure 21.

Figure 21 Zoom In and Member Retention Option Settings



The Zoom In option group contains items that enable you to customize drilling behavior. You can specify which members are returned to the worksheet during a drill-down operation. For example, if you select Bottom Level, Essbase retrieves data for the lowest level of members in a dimension. With this option, a drill-down on Year retrieves Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, and Dec.

The Member Retention option group contains items that enable you to customize drilling retention characteristics. The default selection, Include Selection, retains the selected member along with the other members retrieved as a result of a drill down. For example, if you drill down on Qtr1, Essbase retrieves data for Jan, Feb, and Mar, as well as for Qtr1. When this option is disabled, Essbase retrieves data only for Jan, Feb, and Mar; Qtr1 is eliminated.

For more information on the Zoom In and Member Retention option groups, see *Oracle Essbase Spreadsheet Add-in Online Help*.

- 2 In Zoom In, select All Levels, and click OK to save the setting.
- 3 In cell A3, drill down (double-click) on Market.
- 4 In cell **C2**, drill down (double-click) on Scenario.

Essbase retrieves all members of Market and Scenario (see Figure 22). For the Market dimension, Essbase drilled down two levels to get to the bottom-most members, which are individual states. The Scenario dimension contains only one member level, so the members of Scenario would also be retrieved if you selected Next Level in the Zoom In option group.

Figure 22 Result of Drilling Down to All Member Levels

	A	В	C	D	E	F	G
1			Measures	Product			
2			Actual	Budget	Variance	Variance %	Scenario
3	New York	Qtr1	1656	2000	-344	-17.2	1656
4		Qtr2	2363	2610	-247	-9.46360153	2363
5		Qtr3	1943	2290	-347	-15.1528384	1943
6		Qtr4	2240	2320	-80	-3.44827586	2240
7		Year	8202	9220	-1018	-11.0412148	8202
8	Massachusetts	Qtr1	1532	1690	-158	-9.34911243	1532
9		Qtr2	1750	1900	-150	-7.89473684	1750
10		Qtr3	1936	2100	-164	-7.80952381	1936
11		Qtr4	1494	1610	-116	-7.20496894	1494
12		Year	6712	7300	-588	-8.05479452	6712

- 5 Select **Essbase**, then **Options** and select **Zoom**.
- 6 Return Zoom In to Next Level.

If you want to drill up on only one quarter of the year, select Within Selected Group in Member Retention.

- To drill up only on Qtr1:
- 1 On Zoom, under Member Retention, select Within Selected Group and click OK.
- 2 Make sure that Include Selection is selected
- 3 To drill up on Qtr1 in cell B3, double-click the secondary mouse button.

Figure 23 shows that drilling up to the Year dimension affects only New York. All other states show data for all four quarters.

Figure 23 Result of Drilling Up Within a Selected Group

	A	В	C	D	E	F	G
1			Measures	Product			
2			Actual	Budget	Variance	Variance %	Scenario
3	New York	Year	8202	9220	-1018	-11.04121475	8202
4	Massachusetts	Qtr1	1532	1690	-158	-9.349112426	1532
5		Qtr2	1750	1900	-150	-7.894736842	1750
6		Qtr3	1936	2100	-164	-7.80952381	1936
7		Qtr4	1494	1610	-116	-7.204968944	1494
8		Year	6712	7300	-588	-8.054794521	6712
9	Florida	Qtr1	1070	1300	-230	-17.69230769	1070
10		Qtr2	1339	1570	-231	-14.7133758	1339
11		Qtr3	1495	1730	-235	-13.58381503	1495
12		Qtr4	1125	1300	-175	-13.46153846	1125

- 4 Before moving on with the tutorial, disable the **Within Selected Group** option:
 - a. Select Essbase, then Options, and select Zoom .
 - b. In Member Retention, clear Within Selected Group, and click OK.
- 5 Select File, then Close to close the worksheet.

Pivoting, Retaining, and Suppressing Data

After you retrieve data into the worksheet, you may want to manipulate the data in various ways. For example, you may want to move rows and columns to different positions in the worksheet, or you may want to tell Essbase to suppress or to retain specific data during data retrievals.

To help you manipulate worksheet data, this section steps you through these procedures:

- "Pivoting Rows and Columns" on page 42
- "Retaining a Data Subset" on page 46
- "Removing a Data Subset" on page 48
- "Navigating Through the Worksheet Without Retrieving Data" on page 49
- "Suppressing Missing Values, Zero Values, and Underscore Characters" on page 53

Pivoting Rows and Columns

With the Pivot command, you can change the orientation of worksheet data. Use the Pivot command to perform any of these tasks:

- Move a row group to a column group
- Move a column group to a row group
- Change the order of row groups
- Change the order of column groups
- To execute the Pivot command, use one method:
 - Select the member cell that you want to pivot, and select **Essbase**, then **Pivot**.
 - This method applies only to moving a row group to a column group or a column group to a row group.
 - Click in the center of the member cell that you want to pivot, press and hold down the secondary mouse button, and drag the group to the desired location.
 - This method applies to swapping row and column groups and to changing the order within groups.
- To pivot Year data from a row group to a column group:
- 1 Select **File**, then **New** or click to open a new worksheet.

Note:

You should already be connected to the Sample Basic database. If you are not connected, follow the steps in "Connecting to a Database" on page 30.

- 2 Select Essbase, then Retrieve.
- 3 Drill down (double-click) on **Measures** and **Product** (in cells B1 and C1, respectively).
- 4 Press and hold down the Alt key, and, in cell E1, drill down (double-click) on Scenario.

Figure 24 shows the spreadsheet view before pivoting.

Figure 24 View Before Pivoting

	Α	В	С	D	E	F	G	Н
1						Market		
2				Actual	Budget	Variance	Variance %	Scenario
3	100	Profit	Year	30468	41940	-11472	-27.35336195	30468
4		Inventory	Year	29448	31590	2142	6.780626781	29448
5		Ratios	Year	57.27288145	57.6240049	-0.351123447	-0.609335377	57.27288145
6		Measures	Year	30468	41940	-11472	-27.35336195	30468
7	200	Profit	Year	27954	35950	-7996	-22.24200278	27954
8		Inventory	Year	33000	31090	-1910	-6.143454487	33000
9		Ratios	Year	55.53966595	57.46674162	-1.927075664	-3.353375551	55.53966595
10		Measures	Year	27954	35950	-7996	-22.24200278	27954
11	300	Profit	Year	25799	29360	-3561	-12.12874659	25799
12		Inventory	Year	28865	27140	-1725	-6.355932203	28865
13		Ratios	Year	54.23795671	57.13950487	-2.901548161	-5.078007182	54.23795671
14		Measures	Year	25799	29360	-3561	-12.12874659	25799
15	400	Profit	Year	21301	22130	-829	-3.746046091	21301

5 In cell C3, select Year and select **Essbase**, then **Pivot**.

Essbase pivots the Year dimension to a column group next to Market (above the Scenario members) (see Figure 25).

Figure 25 Result of Pivoting a Row Group to a Column Group

	Α	В	С	D	E	F
1			Year	Market		
2			Actual	Budget	Variance	Variance %
3	100	Profit	30468	41940	-11472	-27.35336195
4		Inventory	29448	31590	2142	6.780626781
5		Ratios	57.27288145	57.6240049	-0.351123447	-0.609335377
6		Measures	30468	41940	-11472	-27.35336195
7	200	Profit	27954	35950	-7996	-22.24200278
8		Inventory	33000	31090	-1910	-6.143454487
9		Ratios	55.53966595	57.46674162	-1.927075664	-3.353375551
10		Measures	27954	35950	-7996	-22.24200278
11	300	Profit	25799	29360	-3561	-12.12874659
12		Inventory	28865	27140	-1725	-6.355932203
13		Ratios	54.23795671	57.13950487	-2.901548161	-5.078007182
14		Measures	25799	29360	-3561	-12.12874659

- 6 As another example, in cell C2, select Actual.
- 7 Right click and drag Actual to product 100 in cell A3.

As Figure 26 shows, the member label box is displayed under the cursor during the pivot operation, and it displays the names of the members that you are pivoting. The *orientation* of the member label box, however, does not determine the orientation of the pivot result. Essbase determines the data orientation by the location of the destination cell.

Figure 26 Pivoting a Column Group to a Row Group

	Α	В	С	D	E	F
1			Year	Market		
2			Actual	Budget	Variance	Variance %
3	100	Actual Budget Variance Variance% Scenario -11472				-27.35336195
4		Inventory	29448	31590	2142	6.780626781
5		Ratios	57.27288145	57.6240049	-0.351123447	-0.609335377
6		Measures	30468	41940	-11472	-27.35336195
7	200	Profit	27954	35950	-7996	-22.24200278
8		Inventory	33000	31090	-1910	-6.143454487
9		Ratios	55.53966595	57.46674162	-1.927075664	-3.353375551
10		Measures	27954	35950	-7996	-22.24200278
11	300	Profit	25799	29360	-3561	-12.12874659
12		Inventory	28865	27140	-1725	-6.355932203
13		Ratios	54.23795671	57.13950487	-2.901548161	-5.078007182
14		Measures	25799	29360	-3561	-12.12874659

Figure 27 shows the result of Essbase pivoting the Scenario members (Actual, Budget, Variance, and Variance%) from a column group to a row group that is displayed to the left of the Product members.

Figure 27 Result of Pivoting a Column Group to a Row Group

	Α	В	С	D	E
1				Year	Market
2	Actual	100	Profit	30468	
3			Inventory	29448	
4			Ratios	57.27288145	
5			Measures	30468	
6		200	Profit	27954	
7			Inventory	33000	
8			Ratios	55.53966595	
9			Measures	27954	
10		300	Profit	25799	
11			Inventory	28865	
12			Ratios	54.23795671	
13			Measures	25799	
14		400	Profit	21301	

- To transpose the order of row groups:
- 1 In cell A2, select Actual.
- 2 Right-click and drag Actual to Profit in cell C2.

Figure 28 shows the spreadsheet before the pivot operation.

Figure 28 Pivoting the Order of Row Groups

	Α	В	С	D	E	F	G
1				Year	Market		
2	Actual	100	Profit Actual	Budget Varian	ce Varia	nce% Scen	ario
3			Inventory	29448			
4			Ratios	57.27288145			
5			Measures	30468			
6		200	Profit	27954			
7			Inventory	33000			
8			Ratios	55.53966595			
9			Measures	27954			
10		300	Profit	25799			
11			Inventory	28865			
12			Ratios	54.23795671			
13			Measures	25799			
14		400	Profit	21301			
15			Inventory	26092			
16			Ratios	53.59966758			

The pivot changes the order of the row groups. The result is shown in Figure 29

Figure 29 Result of Pivoting the Order of Row Groups

	Α	В	С	D	E	F
1				Year	Market	
2	100	Profit	Actual	30468		
3			Budget	41940		
4			Variance	-11472		
5			Variance %	-27.35336195		
6			Scenario	30468		
7		Inventory	Actual	29448		
8			Budget	31590		
9			Variance	2142		
10			Variance %	6.780626781		
11			Scenario	29448		
12		Ratios	Actual	57.27288145		
13			Budget	57.6240049		
14			Variance	-0.351123447		
15			Variance %	-0.609335377		
16			Scenario	57.27288145		

In this example, notice that both the source cell and the destination cell are now members. Whenever the source cell and the destination cell are members of different row groups, Essbase exchanges the member groups. You must select a destination cell that contains a member name to exchange row members. You can also exchange column members by choosing a destination cell in another column that contains a member name.

Retaining a Data Subset

The Keep Only command retains only selected member rows or columns and removes all other data from the worksheet view. This command provides a powerful way to remove dimensional slices without having to delete individual cells.

- To keep only Actual and Budget data in the current worksheet:
- 1 In cell C2, select Actual, and in cell C3, select Budget (see Figure 30).

Figure 30 Selecting Members for the Keep Only Command

	Α	В	С	D	E	F
1				Year	Market	
2	100	Profit	Actual	30468		
3			Budget	41940		
4			Variance	-11472		
5			Variance %	-27.35336195		
6			Scenario	30468		
7		Inventory	Actual	29448		
8			Budget	31590		
9			Variance	2142		
10			Variance %	6.780626781		
11			Scenario	29448		
12		Ratios	Actual	57.27288145		
13			Budget	57.6240049		
14			Variance	-0.351123447		
15			Variance %	-0.609335377		
16			Scenario	57.27288145		

2 Select **Essbase**, then **Keep Only**.

Essbase removes the Variance, Variance%, and Scenario rows from the worksheet and retains only Actual and Budget data (see Figure 31).

Figure 31 Result of Retaining a Data Subset (Adjacent Cells)

	Α	В	С	D	E	F
1				Year	Market	
2	100	Profit	Actual	30468		
3			Budget,	41940		
4		Inventory	Actual	29448		
5			Budget	31590		
6		Ratios	Actual	57.27288145		
7			Budget	57.6240049		
8		Measures	Actual	30468		
9			Budget	41940		
10	200	Profit	Actual	27954		
11			Budget	35950		
12		Inventory	Actual	33000		
13			Budget	31090		
14		Ratios	Actual	55.53966595		
15			Budget	57.46674162		
16		Measures	Actual	27954		

Occasionally, the data that you want to remove from the worksheet does not lie in an adjacent range of cells.

- To select and retain nonadjacent cells:
- 1 Press and hold down the Alt key, and, in cell D1, zoom in (double-click) on Year.
- 2 Select Qtr2 in cell E2.
- 3 Press and hold down the Ctrl key and select Qtr4 in cell G2 (see Figure 32).

Figure 32 Selecting Nonadjacent Members for the Keep Only Command

	Α	В	С	D	E	F	G
1						Market	
2				Qtr1	Qtr2	Qtr3	Qtr4
3	100	Profit	Actual	7048	7872	8511	7037
4			Budget	9790	10660	11440	10050
5		Inventory	Actual	29448	29860	36461	35811
6			Budget	31590	29950	34830	32340
7		Ratios	Actual	57.40178857	57.28473167	57.39559978	56.99467561
8			Budget	57.7376566	57.39041794	57.45231167	57.96344648
9		Measures	Actual	7048	7872	8511	7037
10			Budget	9790	10660	11440	10050
11	200	Profit	Actual	6721	7030	7005	7198
12			Budget	8480	8840	8830	9800
13		Inventory	Actual	33000	31361	35253	32760
14			Budget	31090	28040	30260	26460
15		Ratios	Actual	55.38738874	55.49797453	55.06764011	56.21773123
16			Budget	57.36255286	57.40395375	57.11143695	57.9954955
17		Measures	Actual	6721	7030	7005	7198

4 Select Essbase, then Keep Only.

Essbase retains only Qtr2 and Qtr4 data and deletes the other Year members (see Figure 33).

Figure 33 Result of Retaining a Data Subset (Nonadjacent Cells)

	Α	В	С	D	E	F
1				Market		
2				Qtr2	Qtr4	
3	100	Profit	Actual	7872	7037	
4			Budget	10660	10050	
5		Inventory	Actual	29860	35811	
6			Budget	29950	32340	
7		Ratios	Actual	57.28473167	56.99467561	
8			Budget	57.39041794	57.96344648	
9		Measures	Actual	7872	7037	
10			Budget	10660	10050	
11	200	Profit	Actual	7030	7198	
12			Budget	8840	9800	
13		Inventory	Actual	31361	32760	
14			Budget	28040	26460	
15		Ratios	Actual	55.49797453	56.21773123	
16			Budget	57.40395375	57.9954955	
17		Measures	Actual	7030	7198	

Removing a Data Subset

The Remove Only command is the counterpart to the Keep Only command. With Remove Only, you can remove selected member rows or columns and retain all other data in the worksheet view.

- To remove a data subset from the current worksheet view:
- 1 In cell B7, select Ratios.
- 2 Press and hold Ctrl, and, in cell B9, select Measures.
- 3 Select Essbase, then Remove Only.

Essbase removes data for Ratios and Measures but retains data for Profit and Inventory. The result is shown in Figure 34.

Figure 34 Result of Removing a Data Subset

	Α	В	С	D	E	F
1				Market		
2				Qtr2	Qtr4	
3	100	Profit	Actual	7872	7037	
4			Budget	10660	10050	
5		Inventory	Actual	29860	35811	
6			Budget	29950	32340	
7	200	Profit	Actual	7030	7198	
8			Budget	8840	9800	
9		Inventory	Actual	31361	32760	
10			Budget	28040	26460	
11	300	Profit	Actual	6769	6403	
12			Budget	7680	7000	
13		Inventory	Actual	30334	38142	
14			Budget	28460	35460	

Navigating Through the Worksheet Without Retrieving Data

With the Navigate Without Data feature, you can perform navigational operations, such as pivot, zoom in, zoom out, keep only, and remove only, without retrieving any data into the worksheet.

This feature is especially useful when dealing with dynamic calculation members, which are usually specified by the application designer. By activating Navigate Without Data, you are effectively telling Essbase *not* to calculate values dynamically (that is, calculate the database at retrieval time) while you are creating the spreadsheet report. Dynamic calculation is discussed in more detail in "Retrieving Dynamic Calculation Members" on page 125.

- To navigate through the worksheet without retrieving data:
- 1 Select Essbase, then Navigate Without Data.

Essbase displays a check mark next to the menu item.

You can also disable Navigate Without Data by clearing the appropriate option in the Global page of the Essbase Options dialog box or by clicking the Navigate Without Data icon on the Essbase toolbar.

2 In cell **D2**, double-click the secondary mouse button to drill up on Qtr2.

Essbase shows the collapsed Year dimension but withholds retrieving any data that is changed as a result of drilling up. The cells where data would usually be displayed are blank. The result is shown in Figure 35.

Figure 35 Result of Zooming Out (Navigate Without Data Enabled)

	Α	В	С	D	E
1				Market	
2				Year	
3	100	Profit	Actual		
4			Budget		
5		Inventory	Actual		
6			Budget		
7	200	Profit	Actual		
8			Budget		
9		Inventory	Actual		
10			Budget		
11	300	Profit	Actual		
12			Budget		
13		Inventory	Actual		
14			Budget		

- 3 In cell D2, drill down (double-click) on Year by pressing and holding down the Alt key. Essbase drills down without retrieving data.
- 4 In cell C3, select Actual and select Essbase, then Pivot.

 Essbase executes the pivot but does not retrieve data. The result is shown in Figure 36.

Note:

You get the same result by pivoting any of the other Scenario members.

Figure 36 Result of Pivoting (Navigate Without Data Enabled)

	Α	В	С	D	E	F	G	Н	ı	J	K	L
1							Market					
2					Actual					Budget		
3			Qtr1	Qtr2	Qtr3	Qtr4	Year	Qtr1	Qtr2	Qtr3	Qtr4	Year
4	100	Profit										
5		Inventory										
6	200	Profit										
7		Inventory										
8	300	Profit										
9		Inventory										
10	400	Profit										
11		Inventory										
12	Diet	Profit										
13		Inventory										
14	Product	Profit										

5 In cell **G1**, click the secondary mouse button on **Market** and drag Market to product 100 (cell A4). Essbase executes the pivot without retrieving data. The result is shown in Figure 37.

Figure 37 Result of Pivoting (Navigate Without Data Enabled)

	Α	В	С	D	E	F	G	Н	-	J	K	L
1						Actual					Budget	
2				Qtr1	Qtr2	Qtr3	Qtr4	Year	Qtr1	Qtr2	Qtr3	Qtr4
3	Market	100	Profit									
4		Į.	Inventory									
5		200	Profit									
6			Inventory									
7		300	Profit									
8			Inventory									
9		400	Profit									
10			Inventory									
11		Diet	Profit									
12			Inventory									
13		Product	Profit									
14			Inventory									

Navigating without data also works with the Keep Only and Remove Only commands.

- To navigate without data when using the Keep Only or Remove Only command:
- 1 Select Qtr1 (cell D2) and Qtr2 (cell E2) and select Essbase, then Keep Only.

 Essbase retains only the selected members and does not retrieve data (see Figure 38).

Figure 38 Result of Keep Only (Navigate Without Data Enabled)

	Α	В	С	D	Е	F	G	Н
1				Actual		Budget		
2				Qtr1	Qtr2	Qtr1	Qtr2	
3	Market	100	Profit					
4			Inventory					
5		200	Profit					
6			Inventory					
7		300	Profit					
8			Inventory					
9		400	Profit					
10			Inventory					
11		Diet	Profit					
12			Inventory					
13		Product	Profit					

Select products 300 (cell B7), 400 (cell B9), and Diet (cell B11) and select Essbase, then Remove Only.

Essbase executes the Remove Only command without actually querying the database for information (see Figure 39).

Figure 39 Result of Remove Only (Navigate Without Data Enabled)

	Α	В	С	D	E	F	G	Н
1				Actual		Budget		
2				Qtr1	Qtr2	Qtr1	Qtr2	
3	Market	100	Profit					
4			Inventory					
5		200	Profit					
6			Inventory					
7		Product	Profit					
8			Inventory					
9								

- To turn off Navigate Without Data when you are ready to retrieve data:
- 1 Select Essbase, then Navigate Without Data.

Essbase removes the check mark next to the menu item.

You can also disable Navigate Without Data by clearing the appropriate option in the Essbase Options dialog box (Global page) or by clicking the Navigate Without Data icon on the Essbase toolbar.

2 In cell A3, drill down (double-click) on Market.

Essbase drills down on the Market dimension and also retrieves data into the worksheet. The result is shown in Figure 40.

Figure 40 Result of Drilling down (Navigate Without Data Disabled)

	Α	В	С	D	E	F	G	Н
1				Actual		Budget		
2				Qtr1	Qtr2	Qtr1	Qtr2	
3	East	[100	Profit	2747	3352	2880	3480	
4			Inventory	5384	4490	5200	3530	
5		200	Profit	562	610	960	1070	
6			Inventory	5957	6442	5610	5910	
7		Product	Profit	5380	6499	6500	7550	
8			Inventory	25744	26214	24710	24030	
9	West	100	Profit	1042	849	2350	2130	
10			Inventory	8592	9656	10250	10950	
11		200	Profit	2325	2423	2570	2720	
12			Inventory	11755	11643	11070	10900	
13		Product	Profit	7137	7515	8960	9290	
14			Inventory	38751	41574	39020	42820	

Note:

To retrieve data without changing the current worksheet view, double-click any data cell or by select Essbase, then Retrieve (after disabling Navigate Without Data).

Suppressing Missing Values, Zero Values, and Underscore Characters

Several types of data can be returned to a worksheet view:

- Numeric data values
- #NoAccess strings, which are displayed when you do not have the proper security access to view a data value
- #Missing strings, which indicate that no data exists for that member intersection
- Zero data values

A missing value is not the same as a zero value that is loaded into the Essbase database. When data does not exist for a data cell in Essbase, a value of #Missing is returned to the worksheet. If any cell in a row contains a value, that row is not suppressed on a retrieval.

Using Essbase, you can suppress missing and zero values from the display in the worksheet. In addition, you can tell Essbase to suppress underscore characters that are in some member names.

- To suppress rows that contain missing values from being displayed in the worksheet:
- 1 In cell C3, double-click the secondary mouse button to drill up on Profit.
- 2 Pivot Measures (in cell C3) to Actual (in cell D1).
- 3 In cell B4, drill down (double-click) on product 100.

In the South member group, the product 100-30 row contains all missing values, indicating that this product is not sold in the South (see Figure 41). You may need to scroll down the worksheet to see this row.

Figure 41 Worksheet View Displaying Missing Data Values

	Α	В	С	D	E	F	G
1				Measures			
2			Actual		Budget		
3			Qtr1	Qtr2	Qtr1	Qtr2	
4	East	100-10	2461	2940	2550	3050	
5		100-20	212	303	220	300	
6		100-30	74	109	110	130	
7		100	2747	3352	2880	3480	
8		200	562	610	960	1070	
9		Product	5380	6499	6500	7550	
10	West	100-10	1047	1189	1720	1900	
11		100-20	-67	-177	320	200	
12		100-30	62	-163	310	30	
13		100	1042	849	2350	2130	
14		200	2325	2423	2570	2720	
15		Product	7137	7515	8960	9290	
16	South	100-10	745	835	1160	1280	
17		100-20	306	363	570	660	
18		100-30	#Missing	#Missing	#Missing	#Missing	

- 4 Select Essbase, then Options, and select Display.
- 5 In Suppress, select #Missing Rows, and click OK.

The Suppress #Missing Rows and Zero Rows options are not available when any of the Formula Preservation options are selected in the Mode page of the Essbase Options dialog box.

For more information on Formula Preservation, see "Preserving Formulas When Retrieving Data" on page 116.

6 Select Essbase, then Retrieve to update the worksheet.

Note:

After you change a worksheet option in the Essbase Options dialog box, you must perform a retrieval or drill operation to put the new setting into effect.

Essbase suppresses product 100-30 from the South member group (see Figure 42).

Figure 42 Result of Suppressing Missing Data Values

	Α	В	С	D	E	F	G
4	East	100-10	2461	2940	2550	3050	
5		100-20	212	303	220	300	
6		100-30	74	109	110	130	
7		100	2747	3352	2880	3480	
8		200	562	610	960	1070	
9		Product	5380	6499	6500	7550	
10	West	100-10	1047	1189	1720	1900	
11		100-20	-67	-177	320	200	
12		100-30	62	-163	310	30	
13		100	1042	849	2350	2130	
14		200	2325	2423	2570	2720	
15		Product	7137	7515	8960	9290	
16	South	100-10	745	835	1160	1280	
17		100-20	306	363	570	660	
18		100	1051	1198	1730	1940	
19		200	1465	1540	1640	1700	
20		Product	3077	3267	4180	4410	
21	Central	100-10	843	928	1080	1180	

7 Select File, then Close, to close the worksheet.

You do not need to save the worksheet.

After you enable the Suppress #Missing Rows feature in the Essbase Options dialog box, any missing values suppressed during a data retrieval are not retrieved again by disabling the feature. If you disable the feature in the Essbase Options dialog box, missing values are retrieved *from only that point on*. For example, in this tutorial task, Essbase could not go back and return the missing values for product 100-30. To return these missing values to the worksheet, you disable the Suppress #Missing Rows feature, drill up on a Product member, and then drill down again.

You can also suppress zeros and underscore characters as described in this tutorial task by clicking the appropriate options in the Suppress option group in the Essbase Options dialog box (Display page).

In addition to suppressing specific values and characters during retrieval, Essbase enables you to define a label for missing values (#Missing) or for data to which you do not have access (#NoAccess). If you define a replacement label for these values, Essbase displays the replacement labels instead of the default labels. See *Oracle Essbase Spreadsheet Add-in Online Help*.

Formatting the Worksheet

Essbase provides you with various ways to customize the worksheet view. For example, you may want to apply visual cues, or styles, to certain member names or to data cells in the worksheet. You may want to display alternative names, or aliases, for member names. This topic steps you through these formatting procedures:

- "Formatting Text and Cells" on page 56
- "Displaying Aliases for Member Names" on page 63

- "Displaying Both Member Names and Aliases" on page 64
- "Repeating Member Labels" on page 65

This section of the tutorial starts with a new worksheet.

Formatting Text and Cells

In a spreadsheet report, many hierarchical levels of database information are displayed. By defining and applying visual cues, or styles, to the text and cells in the worksheet, you can easily keep track of specific database members, dimensions, and cell functions. Styles are an effective way of viewing and distinguishing data in Spreadsheet Add-in.

Keep in mind that applying styles requires additional processing during a retrieval request. If you need to remove styles, see "Removing Styles (Optional)" on page 62.

This portion of the tutorial describes these tasks:

- "Applying Styles to Parent Members" on page 56
- "Applying Styles to Dimension Members" on page 59
- "Applying Styles to Data Cells (Optional)" on page 60
- "Precedence of Overlapping Styles" on page 61
- "Removing Styles (Optional)" on page 62

For a discussion of the relationships among Essbase database members, see "Database Outlines" on page 12.

Applying Styles to Parent Members

Each dimension in a database may contain a large number of hierarchical levels. As you view data in the worksheet, you may not be familiar with all the hierarchical levels of the database outline. To indicate which members have underlying children, you can apply formatting styles to parent members, including those with attributes.

- To apply styles to parent members:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Select Essbase, then Retrieve.

Note:

You should still be connected to the Sample Basic database. If you are not connected, follow the steps in "Connecting to a Database" on page 30.

- 3 In cell A2, drill down (double-click) on Year.
- 4 Select Essbase, then Options, and select Style.

The Style page is available only when you are connected to a database.

Essbase displays the Style page (see Figure 43).

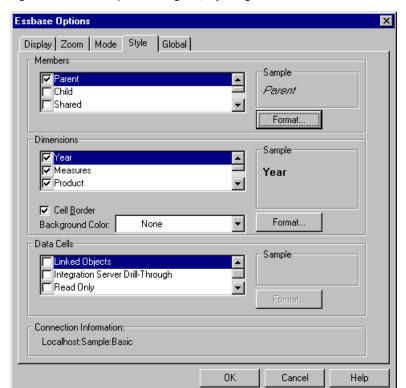


Figure 43 Essbase Options Dialog Box, Style Page

In the Members group box, you can define styles for various types of database members, such as parent, child, and shared members.

5 In Members, select Parent.

Selecting this option defines a font and color style for parent member names. Essbase defines a default color of navy for all parent members. You can select a font format by clicking the Format button to the right of the Members group box and using the Font dialog box.

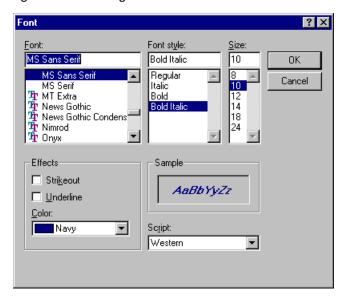
6 Click Format to the right of the Members.

Essbase displays the Font dialog box.

7 In Font style, select Bold Italic, and click OK.

Essbase displays an example of the selected style in the Sample box (see Figure 44).

Figure 44 Font Dialog Box



8 Click **OK** again.

Even though you have defined styles, they are not enabled until you select the Use Styles option from the Essbase Options dialog box and refresh the worksheet.

- 9 Select Essbase, then Options, and select Display.
- 10 In Cells, select Use Stylesto enable the styles, and click OK.
- 11 Select Essbase, then Retrieve to refresh the worksheet and apply the styles.

Essbase displays parent member names in bold, navy font.

12 In cell A2, drill down (double-click) on Qtr1.

Essbase displays Jan, Feb, and Mar in a regular font, because these members do not have underlying children.

Figure 45 Styles Applied to Parent Members

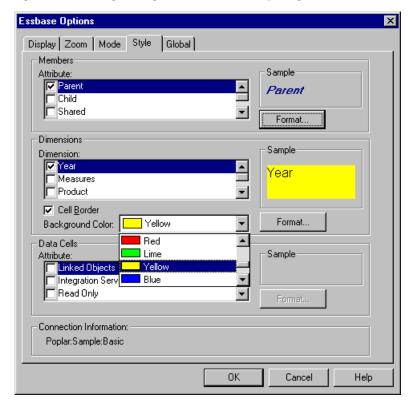
	Α	В	С	D	Е
1		Measures	Product	Market	Scenario
2	Jan	8024			
3	Feb	8346			
4	Mar	8333			
5	Qtr1	24703			
6	Qtr2	27107			
7	Qtr3	27912			
8	Qtr4	25800			
9	Year	105522			

Applying Styles to Dimension Members

In addition to applying styles to parent members, as you did in the previous exercise, you can also apply styles to members of a dimension in a database. Applying styles to dimensions makes it easy to view the various dimension members in Spreadsheet Add-in.

- To apply styles to dimensions:
- 1 Select Essbase, then Options, and select Style.
- 2 In Dimensions, select Year.
- 3 Select Cell Border to create a border around each cell that contains a member from the selected dimension.
- 4 From Background Color, select Yellow.

Figure 46 Selecting a Background Color from the Style Page



5 Click Format to the right of Dimensions.

The Font dialog box is displayed.

6 From Font style, select Bold, and click OK.

An example of the selected style is displayed in the Sample box.

- 7 From the list of dimensions, select Measures, and from Background Color, select Fuchsia.
- 8 From the list of dimensions, select **Product**, and clear **Cell Border**.
- 9 From Background Color, select Aqua.
- 10 Scroll down the list of dimensions, and select Market.

- 11 Select Cell Border, and click Format to the right of Dimensions.
- 12 When Fontis displayed, from Font style, select Italic, and click OK.
- 13 From the list of dimensions, select Scenario, and from Background Color, select Red.
- 14 Click Format, and from Background Color, select White.
- 15 Click **OK** twice to return to the worksheet.

Note:

When you define styles, your choices are saved to the Windows Registry on your local computer. You can define one set of styles per database.

- 16 In cell D1, drill down (double-click) on Market.
- 17 Press and hold down the Alt key and drill down (double-click) on Scenario in cell E1.
- 18 Select Essbase, then Retrieve to refresh the worksheet.

Essbase redisplays the worksheet and implements the newly defined styles. For example, members of the Scenario dimension are displayed with a red background.

В Е G D 1 Measures Product 2 Actual Budget Variance Variance Scenario | 3 East Jan 1732 2080 -348 -16.7308 1732 4 Feb 1843 2230 -387 -17.3543 1843 5 Mar 1805 2190 -385 -17.5799 1805 6 -1120 -17.2308 Qtr1 5380 6500 5380 7 7550 -1051 6499 Qtr2 6499 -13.9205 8 Qtr3 6346 7550 -1204 -15.947 6346 9 Qtr4 5936 6790 -854 -12.5773 5936 10 -4229 Year 24161 28390 -14.8961 24161 11 West Jan 2339 2980 -641 -21.5101 2339 Feb 2394 12 2394 2990 -596 -19.9331 13 2404 2990 -586 -19.5987 2404 Mar 14 Qtr1 7137 8960 -1823 -20.346 7137

Figure 47 Dimensions with Styles Applied

Applying Styles to Data Cells (Optional)

You can apply styles to data cells, such as read-only cells, read/write cells, linked object cells, and Integration Server drill-through cells to distinguish them from other cells in the worksheet. The Sample Basic database that you are using for this tutorial does not contain data cells with any of these characteristics. In Chapter 3, "Advanced Tutorial," you attach a linked reporting object to a data cell and apply a style to the cell.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To apply styles to data cells:
- 1 Select Essbase, then Options, and select Style.
- 2 In Data Cells, select Linked Objects, Integration Server Drill-Through, Read Only, or Read/Write.
- 3 Click Format.
- 4 In Font, specify the font, font size, font style, color, and effects, and click OK.

An example of the selected style is displayed in the Sample box.



- 5 Repeat step 2 through step 4 to set styles for other data cells.
- 6 Select Display, and select Use Styles to apply styles to the worksheet.
- 7 Click OK to close Essbase Options.
- 8 Select Essbase, then Retrieve, to display the new styles in the worksheet.

Precedence of Overlapping Styles

Essbase uses this order of precedence when applying multiple text styles:

- Linked object cells
- Integration Server Drill-Through cells
- Read-only cells
- Read/write cells
- Parent member cells
- Child member cells
- Shared member cells
- Cells containing formulas
- Dynamic calculation member cells
- Attribute cells
- Dimension cells

The only way you can apply a background color to data is to define a style for dimensions. If dimension styles are defined and the Use Styles setting is turned on, a background color is always defined for members of a dimension.

The text styles that you can apply to members, dimensions, and data cells are hierarchical and determine which characteristics are applied. Member styles are at the top of the hierarchy. Thus, member styles are always applied if styles are turned on. Notice that in Figure 47 on page 60, the Qtr1 label in cell B6 is in bold italic navy font, and has a yellow background. The navy font comes from the style defined for parent members, and the yellow background comes from the style defined for Year.

If you want to see a child member style, make sure that the parent member style is turned off. If you want to see a shared member style, make sure that both parent and child member styles are turned off.

Removing Styles (Optional)

Styles can be very helpful tools for keeping track of data in Spreadsheet Add-in. Applying styles, however, involves additional processing time during a retrieval request. This additional processing has a slight impact on the speed of Essbase retrievals.

If you do not want to apply styles to the worksheet view, you can clear them. You can also turn off styles so that they are not displayed when you refresh the view (by selecting Essbase, then Retrieve, for example). So that the worksheet matches the illustrations presented in these tasks, *do not* remove styles if you are going through the tutorial.

If styles are applied to the worksheet and you execute the FlashBack command, these styles are temporarily removed from the current view. The styles are reapplied whenever you initiate a retrieval.

Note:

These tasks are optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To remove all styles from a worksheet:
- 1 Select all cells in the worksheet.
- 2 From the Excel menu bar, select **Edit**, then **Clear**, then **Formats**.
- To turn off styles:
- 1 Select **Essbase**, then **Options**, and select **Display**.
- 2 In Cells, clear Use Styles, and click OK.

Note:

If you turn styles off without clearing them from the worksheet, the styles remain in the current worksheet view when you refresh the view. The styles remain to avoid removing any styles that you may apply to individual cells using native worksheet formatting options.

Displaying Aliases for Member Names

An alias is alternate name for a database member. You can create reports that use the database member name, which is often a stock number or a product code, or an alias name, which can be more descriptive. Aliases are defined by the Essbase application designer. Each database can contain one or more alias tables.

For example, members of Product in the Sample Basic database are defined as codes, such as 100 and 200. A descriptive alias for each member of Product, such as Colas and Root Beer, is defined in an alias table. In some cases, alias names may vary depending on the combination of other database members. For example, a Product member may have a different alias for each market in which it is sold. See *Oracle Essbase Spreadsheet Add-in Online Help* and *Oracle Essbase Database Administrator's Guide*.

- To display the alias of a member rather than its database name:
- 1 In cell C2, double-click the secondary mouse button to drill up on Actual.
- 2 Press and hold down the Alt key and drill down (double-click) on Product in cell D1.
- 3 Select Essbase, then Options, and select Display.
- 4 In Aliases, select Use Aliases to display member aliases.
- 5 Under Alias, select Default (see Figure 48).

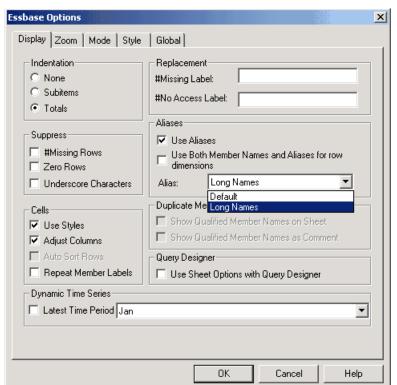


Figure 48 Enabling Aliases in the Essbase Options Display Page

6 Click OK.

7 Select **Essbase**, then **Retrieve** to refresh the worksheet and display the alias names.

The result is shown in Figure 49. Essbase changes the Product codes (100, 200, and so forth) to their predefined aliases (Colas, Root Beer, Cream Soda, and so forth). In the Sample Basic database, Product is the only dimension with predefined aliases.

Figure 49 Result of Displaying Aliases

	Α	В	С	D	E	F	G
1					Measures		
2			Colas	Root Beer	Cream Soda	Fruit Soda	Diet Drinks
3			Scenario	Scenario	Scenario	Scenario	Scenario
4	East	Jan	924	158	184	466	181
5		Feb	888	242	200	513	185
6		Mar	935	162	207	501	189
7		Qtr1	2747	562	591	1480	555
8		Qtr2	3352	610	922	1615	652
9		Qtr3	3740	372	522	1712	644
10		Qtr4	2817	990	592	1537	557
11		Year	12656	2534	2627	6344	2408
12	West	Jan	378	752	755	454	663
13		Feb	337	781	797	479	683
14		Маг	327	792	811	474	679

Notice that Essbase is still displaying the styles that you created and applied in the previous sections.

Displaying Both Member Names and Aliases

In addition to displaying aliases for database members, you can also configure Essbase to display both aliases and database member names in Spreadsheet Add-in.

- To display the name and alias of a member:
- 1 In cell **B8**, double-click the secondary mouse button to drill up on Qtr2.
- 2 In cell C2, select Colas, and then select Essbase, then Pivot.
- 3 In cell C3. select Year, and then select Essbase, then Pivot.
- 4 Select Essbase, then Options, and select Display.
- 5 In Aliases, select Use Both Member Names and Aliases for Row Dimensions.

Be sure that Use Aliases is already checked.

6 Click **OK** to return to the worksheet, and select **Essbase**, then **Retrieve**.

The result is shown in the section called "Starting Spreadsheet Add-in". Essbase displays both member names and their aliases for row dimensions. Because the only row dimension in this example that has preassigned aliases is Product, only the Product members display their aliases. Region members simply repeat the member name instead of displaying an alias.

Figure 50 Result of Displaying Both Member Names and Aliases

	Α	В	С	D	Е	F
1					Year	Measures
2					Scenario	
3	100	Colas	East	East	12656	
4			West	West	3549	
5			South	South	4773	
6			Central	Central	9490	
7			Market	Market	30468	
8	200	Root Beer	East	East	2534	
9			West	West	9727	
10			South	South	6115	
11			Central	Central	9578	
12			Market	Market	27954	
13	300	Cream Soda	East	East	2627	
14			West	West	10731	
15			South	South	2350	

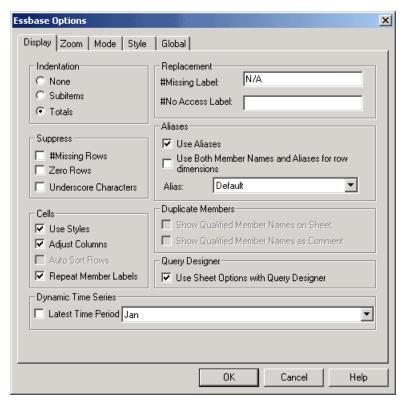
Repeating Member Labels

By default, Essbase displays member labels only once for each nested row and column group. If you are connected to a large database when using Spreadsheet Add-in, you may have to scroll down or across the worksheet to see additional data rows and columns.

In some cases, as you scroll down or across, member labels disappear from view. Essbase provides a feature for repeating member labels in each row or column cell that represents a data point, so that you can always see a member label in the worksheet view.

- To repeat member labels down and across the worksheet:
- 1 Select Essbase, then Options, and select Display.
- 2 In Aliases, clear Use Both Member Names and Aliases for Row Dimensions (see Figure 51).
- 3 In Cells, select Repeat Member Labels, and click OK.

Figure 51 Enabling the Repeat Member Labels Option



4 In cell E1, drill down (double-click) on Year.

Essbase displays a member label in every column and row cell (see Figure 52). For the Sample Basic database that you are using for this tutorial, repeating member labels is probably not necessary because the database is relatively small. This feature is particularly helpful for keeping track of member labels when scrolling through large worksheets.

Figure 52 Result of Repeating Member Labels

	А	В	С	D
1				Measures
2				Scenario
3	Qtr1	Colas	East	2747
4	Qtr1	Colas	West	1042
5	Qtr1	Colas	South	1051
6	Qtr1	Colas	Central	2208
7	Qtr1	Colas	Market	7048
8	Qtr1	Root Beer	East	562
9	Qtr1	Root Beer	West	2325
10	Qtr1	Root Beer	South	1465
11	Qtr1	Root Beer	Central	2369
12	Qtr1	Root Beer	Market	6721
13	Qtr1	Cream Soda	East	591
14	Qtr1	Cream Soda	West	2363
15	Qtr1	Cream Soda	South	561
16	Qtr1	Cream Soda	Central	2414

You may notice that even if you clear the Repeat Member Labels option in the Essbase Options dialog box, Essbase retains the repeated member labels in the worksheet view. To remove the repeated labels, you need to perform one of these tasks:

- Clear the option and open a new worksheet
- Clear the option and pivot the row group to a column group and then pivot it back to a row group (or the reverse, from a column group to a row group, and back)
- Select Essbase, then FlashBack, and clear the option
- 5 Before returning to the tutorial, complete these actions:
 - a. Select Essbase, then Options, and select Display.
 - b. In Cells, clear the Repeat Member Labels, and click OK.
 - c. Select File, then Close to close the worksheet.

You do not need to save the worksheet.

Working with Duplicate Member Names

An Essbase database may contain duplicate member names.

Users can view the *qualified* name of a member either directly on a worksheet or by using the Comment functionality of Excel. The qualified name includes the member name and the names of its ancestors up to the level that uniquely defines the member.

The qualified member name is displayed in this format:

```
[DifferentiatingAncestor].[Ancestors...].[Member]
```

The number of members in the qualified member name depends on the number of levels needed to uniquely define the duplicate member.

You can choose to display the qualified member name as a cell comment. If a member is a duplicate, the cell contains a cell comment indicator. Hover over the comment indicator to view the qualified member name. You may also opt to display the qualified member name directly on the sheet.

Note that in the Essbase Member Selection dialog box in the Spreadsheet Add-in, if duplicate members are selected, you can hover over the duplicate member names in the Rules list box to view the qualified member name. This is true regardless of the comment settings made in Excel.

When viewing the qualified member name as a cell comment, you will see the qualified member name between the <esskey></esskey> identifier; for example:

```
<esskey>[East].[New York]</esskey>
```

After a Save or Save As operation, the qualified member name in the cell comment field is displayed between the <esskey></esskey> and <essdisp></essdisp> identifiers; for example:

```
<esskey>[East].[New York]</esskey><essdisp>[East].[New York]</essdisp>
```

Do not edit the text between the <esskey></esskey> identifier or the <essdisp></essdisp> identifier (which appears after a save operation until the next Retrieve). These

identifiers appear in the comment field regardless of the Qualified Member Name display settings you make. Changing the text between the identifiers may invalidate the worksheet.

Note that you can enter comments before or after the identifiers and that these comments are retained by Essbase with each retrieval.

An Example Scenario

For this example, the member name "Albany" appears under both the New York and California members in a Market dimension as well as in a Customer dimension. With duplicate member name support, Essbase can simply display "Albany" under New York and California in both dimensions. Depending on the options you select, the qualified member name can be shown as an Excel comment,

For this example, only the "Show Qualified Member Names as Comments" option has been selected in the Display page of the Essbase Options dialog box.

In the spreadsheet, using the example of the duplicate name "Albany," if the user hovers over the indicator for Albany, New York, in the Market dimension, the cell comment reads:

```
<esskey>[Market].[New York].[Albany]</esskey>
```

If the user hovers over the indicator for Albany, New York, in the Customer dimension, the cell comment reads:

```
<esskey>[Customer].[New York].[Albany]</esskey>
```

Further, if the user hovers over the indicator for Albany, California, in the Customer dimension, the cell comment reads:

```
<esskey>[Customer].[California].[Albany]</esskey>
```

In a complex spreadsheet, the cell comment allows the user to easily pinpoint a member combination.

In the above examples, if the "Show Qualified Member Names on Sheet" option is selected, for the instances of Albany in the Customer and Market dimensions, the qualified member name is displayed directly on the worksheet.

Note:

To show qualified member names as comments, you must enable the "Comment Indicator only" option in Excel.

- To display duplicate member names (optional):
- 1 Select **Essbase**, then **Options**.
- 2 In **Display**, select one or both of these options from **Duplicate Members**:
 - Show Qualified Member Names on Sheet to view the qualified member name on the sheet.
 - Show Qualified Member Names as Comments to view the qualified member name when the cursor is hovered over the comment indicator in a cell. When you use this option, ensure that the Comment indicator only option of Excel is selected.

3 Click OK to close the dialog box.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

Creating Queries Using Query Designer

So far, you have discovered how to retrieve data and navigate through Spreadsheet Add-in in an ad hoc fashion. Essbase also provides a query designer so that you can define a database query for retrieving dimensions and database members into the worksheet.

Before Essbase actually retrieves data, Query Designer provides a series of panels so that you can request the data that you want to view in the worksheet. It is particularly helpful when you know exactly which data you want to retrieve from the server. In addition, you can save a query and use it again.

The Query Designer window consists of these panels:

- The navigation panel at the left of the window provides access to the various features in Query Designer. You can display all the dimensions used in a particular query and access the various properties of each dimension member.
- The hint panel at the top right of the window provides a brief description of the feature that is selected from the navigation panel.
- The properties panel at the bottom right of the window provides access to these functions:
 - o Layout—Design the layout of the spreadsheet report. To change the default layout, select a dimension tile and drag it to one of the other dimension boxes. To access the member select panel and to define a member for a query, double-click a dimension tile.
 - O Member Select Select members that you want to display in the rows of the spreadsheet report. To select a member, right-click the member, and select Add to Selection Rules. You can also double-click a member to add it to the selection rules.
 - Member Filter—Filter the member selection by attribute, generation name, level name, pattern string, or UDA.
 - O Data Filter—Retrieve rows of data. The retrieval is based on the ranking of the rows within certain columns. Use this panel to access the data restriction panel.
 - O Data Restriction—Filter data by comparing it to a fixed data value (including a negative value), a set of data values, or #Missing data values.
 - Data Sort Sort rows in ascending or descending order. The sort is based on column data values.
 - Messages and Confirmation—Turn on and turn off certain messages from Query Designer.
 - Help—Access documentation about Query Designer.

See "About Creating and Changing Queries" on page 70 for an overview of Query Designer. The portions of the tutorial that follow step you through these query design procedures:

- "Creating Queries" on page 71
- "Saving Queries" on page 76
- "Applying Queries" on page 78
- "Deleting Queries" on page 79
- "Viewing Messages and Confirmations" on page 79
- "Accessing Help" on page 80

Note:

Excel query functionality is not supported in Spreadsheet Add-in. Use the Query Designer to define database queries.

About Creating and Changing Queries

To access any of the Query Designer panels, select the appropriate feature listed in the navigation panel.

As you create a query or make changes to an existing query, the changes are reflected in the navigation panel. To view a dimension or a member of an open query, click on the specific dimension or member in the query outline that is displayed in the navigation panel. Selected members are displayed in the member selection panel on the right.

You can also revise an existing query in the member selection panel. For example, you can delete a member or add a member to the query by selecting a member in the navigation panel and making the appropriate changes in the properties panel.

Note:

Files created using the obsolete Retrieval Wizard feature can be opened in Query Designer. If, however, a query contains more than two member filters per selection rule or more than two data restrictions, the member filters may be out of order. To ensure correct results, rearrange the member filters in the navigation panel, if necessary.

For complete information on Query Designer options, see *Oracle Essbase Spreadsheet Add-in Online Help*.

Caution!

Manipulation of worksheets in VBA such as naming worksheets or moving worksheets may not work when Query Designer is running.

Creating Queries

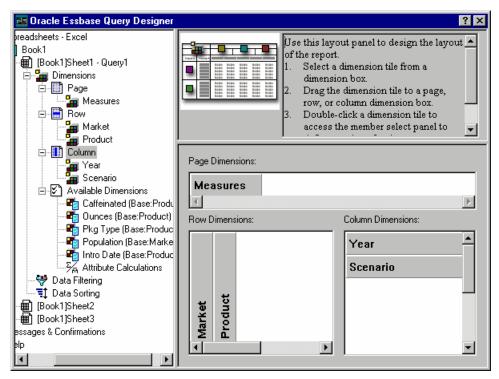
- To create a query using Query Designer:
- 1 Select Essbase, then Query Designer.

Essbase displays the Query Designer welcome panel.

- 2 In the navigation panel, select [Book1]Sheet1, right-click, and select New, then Query.
 - The layout panel of Query Designer is displayed.
- 3 Define the worksheet layout by dragging the dimension tiles in the properties panel as follows:
 - a. Drag Market and Product to the **Row** location.
 - b. Drag Measures to the Page location.
 - c. Drag Scenario below Year (in the Column location).

Figure 53 shows the results of dragging the dimension tiles in the properties panel.

Figure 53 Changing the Worksheet Layout



4 In the navigation panel, select the Measures dimension by selecting the Measures icon. Alternatively, doubleclick the Measures tile in the layout panel.

The member select properties panel, where you can select a member from the Measures dimension, is displayed.

Note:

You can select only one member from the dimension in the Page location.

5 In Members, select Profit, right-click, and select Add to Selection Rules.

Profit is displayed in the Selection Rules list box.

Figure 54 Query Designer Displaying the Member Select Panel



Note:

In Query Designer, after you make your selections, you do not need to confirm them; for example, you do not have to click OK. If you do not select members from any given dimension, Essbase uses the top member of the dimension.

6 Select members of the Year dimension as follows:

a. In the navigation panel, click the Year icon. Alternatively, double-click the Year tile in the layout panel.

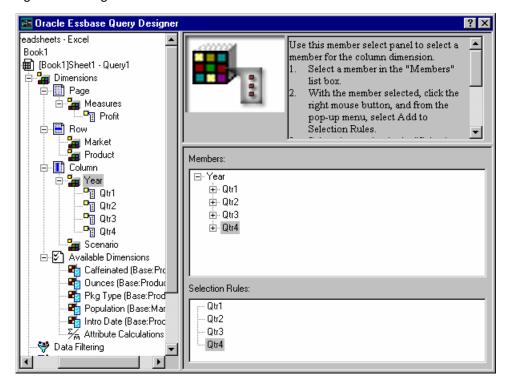
The member select properties panel for the Year dimension is displayed.

- b. In Members, select Qtr1, right-click, and select Add to Selection Rules.
- c. Add Qtr2, Qtr3, and Qtr4 to the selection rules in the same manner.

Because Year is in a Column location, you can select one or more members.

The result is shown in Figure 55.

Figure 55 Adding Members to the Selection Rules



7 Select members of the Scenario dimension as follows:

- In the navigation panel, select Scenario. Alternatively, double-click the Scenario tile in the layout panel.
 - The members of the Scenario dimension are displayed in the member select properties panel.
- b. Select Actual, right-click, and select Add to Selection Rules.
 - Actual is added to the Selection Rules list box.
- c. In the same manner, add Budget to Selection Rules.

8 Select members of the Product dimension as follows:

- a. In the navigation panel, select **Product**. Alternatively, double-click the Product tile in the layout panel.
 - The members of the Product dimension are displayed in the member select properties panel.
- b. Select product code 100, right-click, and select Add to Selection Rules.
- c. Repeat the process for product codes 200, 300, and 400.
- d. In **Selection Rules**, select product code 100, right-click, and then, from the shortcut menu, choose **Select**, then **Children**.
 - This action selects all children of 100. All Children is displayed next to 100 in the Selection Rules list box (see Figure 56).
- e. In Selection Rules, select product code 400, right-click, and choose Select, then Descendants.

All Descendants is displayed next to 400 in the Selection Rules list box.

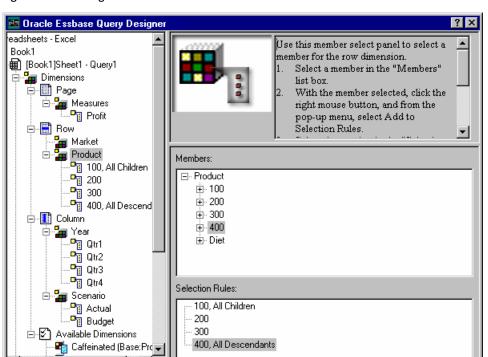
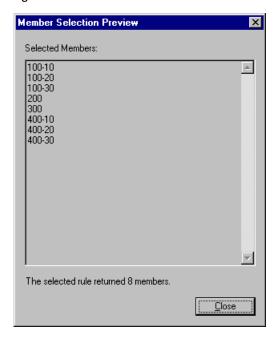


Figure 56 Selecting Members of Product

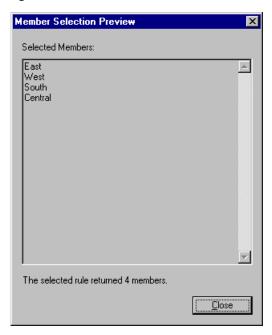
- f. To view the list of all product codes that will be retrieved into the worksheet, select any of the entries in **Selection Rules** (for example, 200), right-click, and select **Preview**.
 - The Member Selection Preview dialog box is displayed (see Figure 57), with the selected product dimensions listed.

Figure 57 Selected Members of Product Dimension



- g. Click Close to close Member Selection Preview.
- 9 Select members of the Market dimension as follows:
 - a. In the navigation panel, select Market.
 - Alternatively, double-click the Market tile in the layout panel.
 - The members of the Market dimension are displayed in the member select properties panel.
 - b. In Members, select East, right-click, and select View by, then Generation.
 - c. To pick the second generation of the Market dimension, in **Member**, select **Region**, right-click, and select **Add to Selection Rules**.
 - Alternatively, double-click Region to add it to the selection rules.
 - Region is displayed in the Selection Rules list box.
 - d. To view the list of members that will be retrieved into the worksheet, in **Selection Rules**, select **Region**, right-click, and select **Preview**.
 - East, West, South, and Central, which are members of generation two in Market, are displayed in the Member Selection Preview dialog box (see Figure 58).

Figure 58 Generation Name Selection



e. Click Close to close Member Selection Preview.

You have now defined a basic query. The outline of the query is displayed in the navigation panel.

The next topic describes how to save this query.

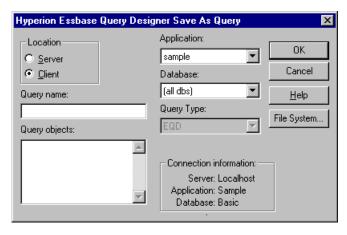
Saving Queries

- To save a query in Query Designer:
- 1 In the navigation panel, select [Book1]Sheet1, Query1, and then right-click and select Save Query.

The Query Designer Save As Query dialog box is displayed (see Figure 59). You can save your query to the server or to your own client computer. To save to the server, you must have a security level of database designer or higher. Contact the Essbase system administrator for more information.

2 In Location, select Client.

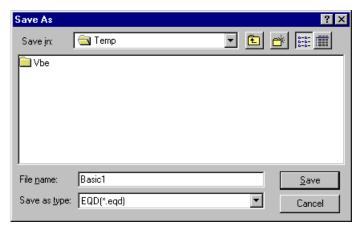
Figure 59 Query Designer Save As Query Dialog Box



3 Click File System.

The Save As dialog box is displayed (see Figure 60).

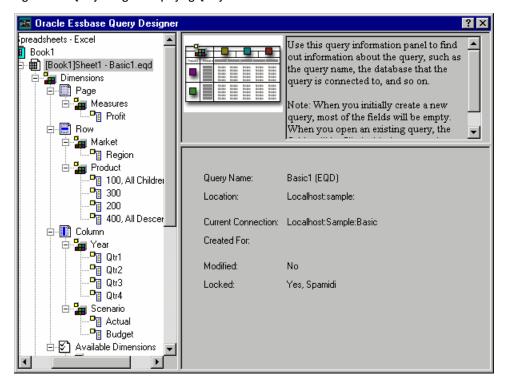
Figure 60 Save As Dialog Box



4 Select a location, and in File name, enter Basic1, and click Save.

As shown in Figure 61, Query Designer displays information about the query that you just saved. You use the Basic1 query again in Chapter 3.

Figure 61 Query Designer Displaying Query Information Panel



The next topic describes how to apply this query.

Applying Queries

- To apply a query in Query Designer:
- 1 In the navigation panel, select [Book1]Sheet1, Basic1.
- 2 Right-click the Basic1 query, and select Apply Query.

The result of the query is displayed in the worksheet (see Figure 62).

Figure 62 Results of a Query Designer Query

	Α	В	С	D	Е	F	G	Н		J
1						Profit				
2			Qtr1		Qtr2		Qtr3		Qtr4	
3			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
4	East	Cola	2461	2550	2940	3050	3298	3440	2430	2410
5		Diet Cola	212	220	303	300	312	310	287	290
6		Caffeine Free Cola	74	110	109	130	130	190	100	150
7		Root Beer	562	960	610	1070	372	830	990	1500
8		Cream Soda	591	770	922	1010	522	660	592	530
9		Grape	645	840	676	860	710	920	618	800
10		Orange	290	350	327	380	377	420	394	440
11		Strawberry	545	700	612	750	625	780	525	670
12	West	Cola	1047	1720	1189	1900	1339	2120	1018	1780
13		Diet Cola	-67	320	-177	200	-154	250	-136	320
14		Caffeine Free Cola	62	310	-163	30	-286	-130	-123	70
15		Root Beer	2325	2570	2423	2720	2540	2820	2439	2840
16		Cream Soda	2363	2620	2739	2970	2937	3230	2692	2850
17		Grape	1143	920	1167	960	1271	1020	1219	920
18		Orange	1002	810	1120	890	1192	1000	940	680
19		Strawberry	-738	-310	-783	-380	-900	-440	-779	-400
20	South	Cola	745	1160	835	1280	1031	1490	965	1510
21		Diet Cola	306	570	363	660	281	570	247	550

On the Display page of the Essbase Options dialog box, if you select Use Styles and Use Sheet Options with Query Designer, the styles you selected for dimension members will be applied to the initial query results. If you do not select Use Sheet Options with Query Designer, even if you have selected Use Styles, they will not be applied to the initial query results. To apply styles, select Essbase, then Retrieve. When Essbase returns the data to the worksheet, you are free to further investigate the data by performing Zoom, Keep Only, Remove Only, and Pivot operations.

Note:

The XLS file that results from applying the query can be saved for possible use as an Essbase data load data file.

Deleting Queries

You can delete a query only from the location where you saved that query. For example, if you save a query in <code>HYPERION_HOME/products/Essbase/EssbaseClient/client/sample</code>, you can delete the query from within the <code>/sample</code> directory. You cannot delete the query from within Query Designer.

Viewing Messages and Confirmations

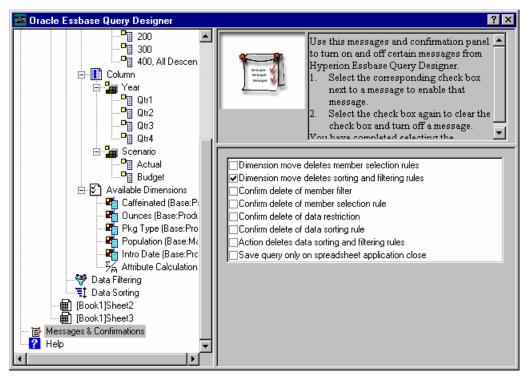
Query Designer displays messages and confirmations about certain actions, such as moves and deletes, in the messages and confirmations panel.

- To turn on or turn off messages and confirmations:
- 1 Select the **Messages and Confirmations** icon in the navigation panel.
- 2 Select the check box that is displayed next to that message to turn on (enable) a message.

3 Select the check box again to turn off (make it inaccessible) a message.

This action clears the check box.

Figure 63 Messages and Confirmations Panel



Accessing Help

To access online help for Query Designer, select Help in the navigation panel.

Connecting to Multiple Databases from Query Designer

You can connect to several databases and create separate queries on each database from Query Designer.

- To connect to multiple databases from Query Designer:
- 1 Log on to Essbase and connect to the server that you want to access.
- 2 Select Essbase, then Query Designer to open Query Designer.
- 3 Select [Book1]Sheet1, right-click, and select Connect.

The Essbase System Login dialog box is displayed.

Note:

The book may be a number other than 1. For example, it may be [Book5], if four worksheets are already open.

- 4 Enter your password, and click **OK**.
- 5 Select Sample Basic, and click **OK**.
- 6 Select [Book1]Sheet2 (or Sheet3), right-click, and select Connect.

The Essbase System Login dialog box is displayed.

- 7 Enter your password, and click **OK**.
- 8 Select Samppart Company, and click **OK**.

Note:

You are restricted to one connection per worksheet. The connection information is displayed in the query information panel of the Query Designer only when you open an existing query or create a new query.

- 9 Select [Book1]Sheet1, right click, and select New, then Query to create a new query based on Sample Basic.
- Select [Book1]Sheet2, right-click, and select New, then Query to create a new query based on Samppart Company,
- 11 To open an existing query, right click, and select **Open Query**.

You are now ready to create queries or to open existing queries.

Applying Worksheet Options to Query Designer Results

You can apply any of the worksheet options that you previously set from the Essbase Options dialog box to the results of a query created in Query Designer.

- To enable Query Designer to use your previously set worksheet options:
- 1 Select Essbase, then Options.
- 2 In Essbase Options, select Display.
- 3 Select Use Sheet Options with Query Designer, and select OK.
- 4 Select **Essbase**, then **Retrieve** to refresh the worksheet.

Essbase displays the results of the query that you created in Query Designer and implements your previously set worksheet options. For example, in Figure 64, aliases, instead of the numeric codes, are now displayed for the Product dimension.

Figure 64 Results of Query with Options Applied

	Α	В	С	D	E	F	G	Н	I	J
1						Profit				
2			Qtr1		Qtr2		Qtr3		Qtr4	
3			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
4	East	Cola	2461	2550	2940	3050	3298	3440	2430	2410
5		Grape	645	840	676	860	710	920	618	800
6		Cream Soda	591	770	922	1010	522	660	592	530
7		Root Beer	562	960	610	1070	372	830	990	1500
8		Strawberry	545	700	612	750	625	780	525	670
9		Orange	290	350	327	380	377	420	394	440
10		Diet Cola	212	220	303	300	312	310	287	290
11		Caffeine Free Cola	74	110	109	130	130	190	100	150
12	West	Cream Soda	2363	2620	2739	2970	2937	3230	2692	2850
13		Root Beer	2325	2570	2423	2720	2540	2820	2439	2840
14		Grape	1143	920	1167	960	1271	1020	1219	920
15		Cola	1047	1720	1189	1900	1339	2120	1018	1780
16		Orange	1002	810	1120	890	1192	1000	940	680
17		Caffeine Free Cola	62	310	-163	30	-286	-130	-123	70
18		Diet Cola	-67	320	-177	200	-154	250	-136	320
19		Strawberry	-738	-310	-783	-380	-900	-440	-779	-400
20	South	Root Beer	1465	1640	1540	1700	1612	1710	1498	1330

5 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

Selecting Members

An Essbase database may contain hundreds or even thousands of members, making it difficult to remember each member name. You can use the Essbase Member Selection dialog box to find and select members and to define the layout of members in the worksheet. In addition, you can use Boolean operators, such as AND, OR, and NOT, or other search parameters to specify criteria and conditions that members must meet for the member selection. Member selection is an important method of creating a spreadsheet report for the data that you want to retrieve.

For complete information on the Essbase Member Selection dialog box, see *Oracle Essbase Spreadsheet Add-in Online Help*.

- To view specific members from the Product dimension:
- 1 Select **File**, then **New** or click to open a new worksheet,

Note:

You should be connected to the Sample Basic database. If you are not connected, follow the steps in "Connecting to a Database" on page 30.

2 Select Essbase, then Retrieve.

3 Select Product and select Essbase, then Pivot to display Product as a row, rather than a column, dimension.

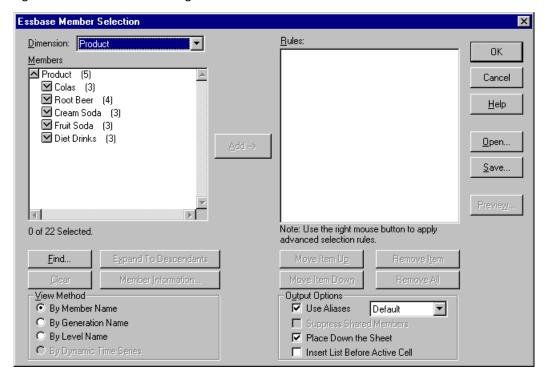
Figure 65 Initial Worksheet for Member Selection

A	Á	В	C	D	E	F
1			Measures	Market	Scenario	
2	Product	Year	105522			
3						
4						
5						

4 Select Product again, and select Essbase, then Member Selection.

The Essbase Member Selection dialog box is displayed (see Figure 66). In the Essbase Member Selection dialog box, the Product dimension is displayed in the Dimension list. Its children, Colas, Root Beer, Cream Soda, Fruit Soda, and Diet Drinks, are displayed in the Members list box.

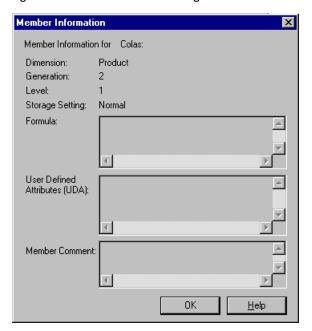
Figure 66 Member Selection Dialog Box



5 Select Colas and click **Member Information**.

The Member Information dialog box is displayed (see Figure 67). The dialog box provides information about the selected member, such as dimension, generation, level, storage setting, formula, UDAs, and member comments.

Figure 67 Member Information Dialog Box



- 6 Click OK to close Member Information.
- 7 In Essbase Member Selection, click Add to add Colas to Rules.

Alternatively, you can double-click an item in the Members list box to add the item.

8 Select Product, and click Find.

The Find Member dialog box is displayed (see Figure 68).

In the Find Member dialog box, you can do pattern-match searches for members in the selected dimension. You can use wildcard patterns—trailing asterisk *, and single-character match, ?. Essbase locates the members that match the text string and groups them in outline order, so that they can be selected as a group.

Note:

You can use the trailing asterisk wildcard and single-character wildcard in the text string. The * wildcard replaces a string of characters, and the ? wildcard replaces a single character. J?n and 100* are examples of valid wildcard strings; *-10 and J*n are examples of invalid wildcard strings.

9 In Find Member, enter D* (see Figure 68).

Figure 68 Find Member Dialog Box



10 Click Find to locate all members that match D*.

Essbase selects the first descendent in the dimension whose name begins with the letter D.

11 Click Find Next.

The next member in the Product dimension whose name begins with the letter D is selected.

- 12 Continue to click Find Next until all members and descents of the Product dimension whose names begin with the letter D are selected.
- 13 Click Close to close Find Member.
- 14 Click Diet Cream once to clear all other selected members and descendants, and click Add.

Colas and the new selection, Diet Cream, are displayed in the Rules list box.

15 In Essbase Member Selection, select Colas in Rules, right-click, and from the shortcut menu, select All Children and Member.

All Children and Member are displayed next to Colas in the Selection Rules list box.

- 16 In Selection Rules, select Colas, All Children and Member, and right-click.
- 17 From the shortcut menu, select **Subset**.

The Subset Dialog box, where you can further define conditions for the selected member, is displayed (see Figure 69). You can define a maximum of 50 conditions in the Subset Dialog box.

- 18 In Subset Dialog, from the list on the left, select Caffeinated. From the list in the middle, select Is. From the list on the right, select Caffeinated_True.
- 19 Click Add as AND Condition.

Caffeinated = Caffeinated_True is displayed in the Conditions list box (see Figure 69).

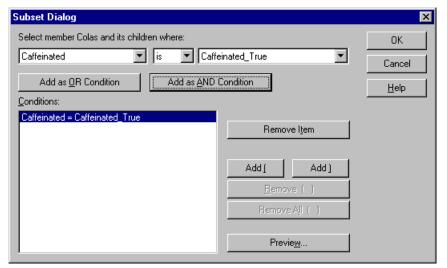


Figure 69 Subset Dialog Box (Before Adding Conditions)

When you use Add as AND Condition, the subsetting condition in the Conditions list box is evaluated using AND logic. AND logic means that the selection must meet the current condition and the condition that follows it in the Conditions list box.

- From the list on the left, select Ounces. From the list in the middle, select the logical operator "=". From the list on the right, select Ounces_12.
- 21 Click Add as AND Condition.

Ounces = Ounces_12 is displayed in the Conditions box.

- From the list on the left, select Ounces. From the list in the middle, select the logical operator "<="". From the list on the right, select Ounces_32.
- 23 Click Add as OR Condition.

Ounces <= Ounces_32 is displayed in the Conditions box.

When you use Add as OR Condition, the subsetting condition in the Conditions list box is evaluated using OR logic. OR logic means that the selection must meet the current condition *or* the condition that follows it in the Conditions list box.

- 24 From the list on the left, select Pkg Type. From the list in the middle, select Is. From the list on the right, select Bottle.
- 25 Click Add as AND Condition.

Pkg Type = Bottle is displayed in the Conditions list box.

- 26 In Conditions, select Ounces <= Ounces_32, and click Add (.
- 27 Select Pkg Type = Bottle, and click Add).

The Add (and Add) buttons add a left parenthesis and right parenthesis, respectively, to selected items. Use parentheses for grouping multiple subsetting conditions to determine the order of priority for analyzing the conditions.

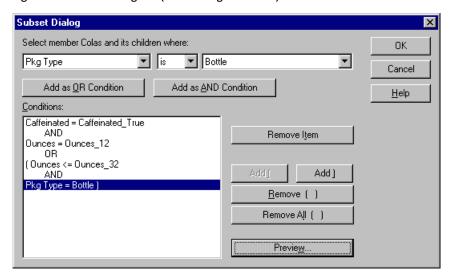
Each item in the Conditions list box can have either the left or right parenthesis, but not both. In this example, Essbase first evaluates members that are less than or equal to 32 ounces and are packaged in a bottle. Essbase then evaluates the results from this condition against members that are 12 ounces.

Note:

Use the Remove () button to remove an individual group of parentheses from a selected item in the Conditions list box. Use the Remove All () button to remove all parenthetical groupings from the Conditions list box.

The Subset Dialog box is displayed (see Figure 70).

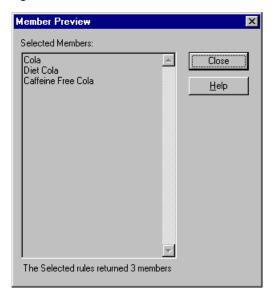
Figure 70 Subset Dialog Box (After Adding Conditions)



28 Click Preview to open Member Preview .

In the Member Preview dialog box (see Figure 71), you can view the resulting member selection from the conditions that you defined.

Figure 71 Member Selection That Results from Subsetting Conditions



- 29 Click Close to close Member Preview.
- 30 Click OK to close Subset and return to Essbase Member Selection.

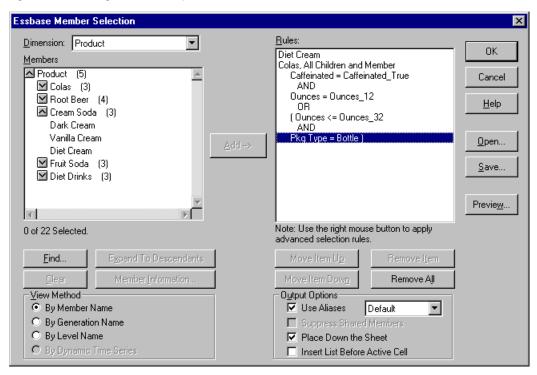
The conditions that you set in the Subset dialog box are displayed in the Rules list box.

31 Select **Diet Cream** and click **Move Item Up** to change the order in which Diet Cream is displayed in the worksheet.

Each time you click the Move Item Up or Move Item Down button, the selected item and its associated subset conditions move up or down one position in the Rules list box. You can move

only the top-level item (the item you added from the Members list box), not the individual subset conditions.

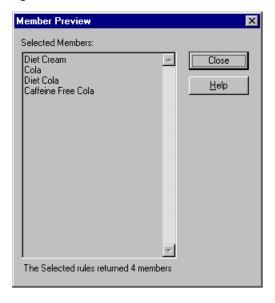
Figure 72 Selecting Members Completed



32 Click **Preview** to preview the members that will be retrieved in the worksheet.

The Member Preview dialog box is displayed (see Figure 73).

Figure 73 Members to be Retrieved in the Worksheet



33 After previewing the list, click **Close**.

34 Click OK to close Essbase Member Selection and insert the new members into the worksheet (see Figure 74).

Figure 74 Result of Selecting Members

	Α	В	С	D	Е	
1			Measures	Market	Scenario	
2	Diet Cream	Year	105522			
3	Cola					
4	Diet Cola					
5	Caffeine Free Cola					

Note:

The FlashBack command cannot undo a Member Selection action.

35 Starting with Diet Cream, enter Year next to each product (see Figure 75).

You need to perform this step so that every product has a matching Year dimension associated with it in the report.

Figure 75 Worksheet After Adding the Year Dimension to All States

	Α	В	С	D	Е	
1			Measures	Market	Scenario	
2	Diet Cream	Year	105522			
3	Cola	Year				
4	Diet Cola	Year				
5	Caffeine Free Cola	Year				

36 Select **Essbase**, then **Retrieve** to update the values in the worksheet.

Essbase retrieves data for the members that you selected and also applies the styles that you previously set. The result is shown in Figure 76.

Figure 76 Result After Retrieving with Member Selection

	A B		С	D	Е	
1			Measures	Market	Scenario	
2	Diet Cream	Year	11093			
3	Cola	Year	22777			
4	Diet Cola	Year	5708			
5	Caffeine Free Cola	Year	1983			

Saving and Disconnecting

After performing basic retrieval, navigation, and formatting tasks, you can save worksheets and disconnect from Essbase. This section instructs you in these procedures:

• "Saving a Worksheet" on page 90

- "Disconnecting from Essbase" on page 90
- "Logging Off" on page 91

Saving a Worksheet

At any point during the Essbase session, you can save the active worksheet with the File menu Save or Save As commands. Thus, you can keep a personal library of database views. You can open the worksheet during a later session and retrieve the latest data values to update the view.

Note:

To save the option settings in a worksheet, you must explicitly go to the Essbase Options dialog box and set the options prior to saving the worksheet. Otherwise, when you open the same worksheet in a new Spreadsheet Add-in session, the options settings for the current session override any previous settings for the worksheet. Make sure that the worksheet for which you saved option settings is not a protected worksheet. Essbase cannot save option settings for a protected worksheet.

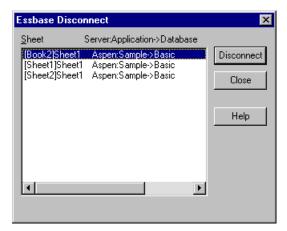
Disconnecting from Essbase

When you finish retrieving and navigating through data, disconnect from the server to decrease user count and to make a port available on the server for other Spreadsheet Add-in users.

- To disconnect from the server:
- 1 Select Essbase, then Disconnect.

The Essbase Disconnect dialog box is displayed; from which you can disconnect any worksheet that is connected to a database.

Figure 77 Essbase Disconnect Dialog Box



- 2 From the list, select a worksheet name, and then click **Disconnect**.
- 3 Repeat step 2 until you have disconnected all active sheets.

4 Click Close to close Essbase Disconnect.

Note:

You can also disconnect from the server by closing the spreadsheet application. An abnormal shutdown of a Spreadsheet Add-in session, such as a power loss or system failure, does not disconnect your server connection.

Logging Off

Essbase provides two administrative features that control user connections:

- Forced Logout, where an administrator disconnects users at any point in time. This logout usually occurs when maintenance operations are performed on databases.
- *Auto Logout*, where Essbase automatically disconnects users that are inactive for a timed interval specified by an administrator.

On to Advanced Tasks

Now that you have completed the basic tutorial, you are ready to move on to more complex tasks. In the next tutorial, you use the sample spreadsheet files to perform advanced tasks in Spreadsheet Add-in.

3

Advanced Tutorial

In This Chapter

About the Advanced Tutorial	9 3
Performing Advanced Retrieval Tasks	99
Using Linked Reporting Objects	144
Connecting to Multiple Databases (Optional)	156
Ways to View Active Database Connections	157
Access Methods for Linked Partitions	158
Updating Data on Essbase Server	159
Database Calculation.	162
Creating Multiple Worksheets from Data	163
Working with Currency Conversions	167

About the Advanced Tutorial

The tutorial that you completed in Chapter 2 teaches basic data retrieval and navigation concepts for Spreadsheet Add-in. This chapter builds on your basic skills and expands your knowledge of Essbase and Spreadsheet Add-in.

In this advanced tutorial, you use several sample spreadsheet files for Excel that were installed as part of the default Essbase installation. These files are stored in <code>HYPERION_HOME/products/Essbase/EssbaseClient/client/sample</code>. You also reconnect to the Sample Basic database.

Before you begin the advanced tutorial, complete the steps in the next two sections, "Connecting to a Database" on page 93 and "Setting Essbase Options" on page 95. In addition, be sure to read "Following Guidelines During the Tutorial" on page 28 and "Reviewing the Sample Basic Database" on page 29 for important information about what you should expect as you perform the tutorial steps.

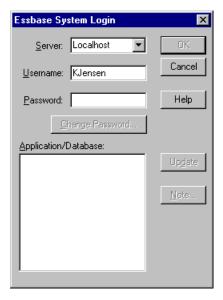
Connecting to a Database

To access Essbase data for the advanced tutorial, first connect to the Sample Basic database on the server. This tutorial assumes that you have the appropriate privileges to connect to a server, an application, and a database.

- To connect to an Essbase Server, Essbase application and database:
- 1 Select Essbase, then Connect.

The Essbase System Login dialog box is displayed (see Figure 78).

Figure 78 Essbase System Login Dialog Box



Note:

To complete the steps that follow, you need to know the name of the Essbase Server, your user name, and your password. If you do not have this information, contact the Essbase system administrator.

- 2 From **Server**, select the server to access or enter the name of the server.
- 3 Enter your user name.
- 4 Enter your password.

Note:

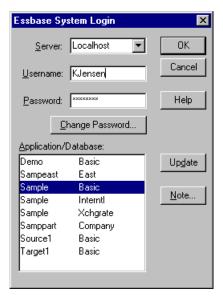
You can change your password when you are connected to a server. See "Changing a Password (Optional)" on page 32.

5 Click **OK** to connect to the server.

Essbase displays a list of available application and database pairs in the Application/Database list box. An instance of Essbase Server enables simultaneous access to multiple applications. An application can contain multiple databases. Only the databases to which you have security access are displayed in the list.

For this tutorial, you use the Sample Basic database. If the Sample Basic database was installed as part of the Essbase installation, it is shown in the list. If Sample Basic is not shown in the Application/Database list box, ask the Essbase system administrator to install it.

Figure 79 Available Application and Database Pairs



6 Select Sample Basic, and click OK.

If the application is not already running, Essbase automatically starts it. There may be a brief pause as the application loads; the time required to start an application depends on the number of databases, the sizes of the databases, and the sizes of the indexes of the databases that are contained within the applications.

Setting Essbase Options

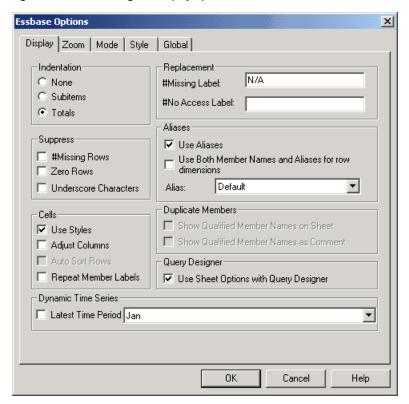
Before you begin the tutorial, make sure that the worksheet options are set to the initial settings shown in the Figure 80 through Figure 83.

Note:

For more information on Essbase options, see Oracle Essbase Spreadsheet Add-in Online Help.

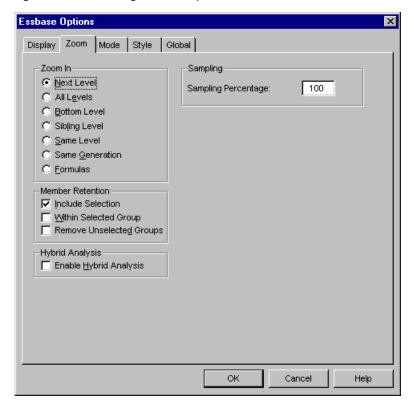
- To set Essbase display options:
- 1 Select Essbase, then Options.
- 2 In Essbase Options, select Display.
- 3 Select display options to match those shown in Figure 80.

Figure 80 Initial Settings for Display Options



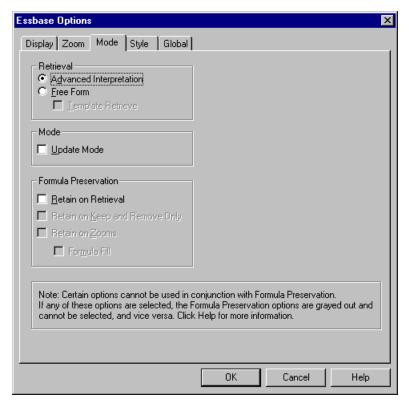
- 4 Select Zoom.
- 5 Select options to match those shown in Figure 81.

Figure 81 Initial Settings for Zoom Options



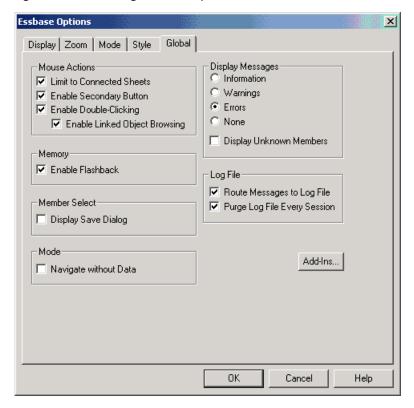
- 6 Select Mode.
- 7 Select options to match those shown in Figure 82.

Figure 82 Initial Settings for Mode Options



- 8 Skip Style and select Global.
- 9 Select options to match those shown in Figure 83.

Figure 83 Initial Settings for Global Options



10 Select **OK** to save the settings for this session and close **Essbase Options**.

The settings in the Essbase Options dialog box may change as you access the various sample spreadsheet files as part of the tutorial. Leave the settings as they are unless the tutorial advises you to change them. If you have different option settings, the illustrations presented in this chapter may not match the worksheet view.

Performing Advanced Retrieval Tasks

The tutorial in Chapter 2 describes how to perform basic data retrieval and navigation tasks in Spreadsheet Add-in. These are the advanced retrieval tasks discussed in this chapter:

- "Filtering Data" on page 100
- "Sorting Data" on page 104
- "Retrieving Data into Asymmetric Reports" on page 107
- "Drilling Down to a Sample of Members (Optional)" on page 109
- "Working with Formatted Worksheets" on page 111
- "Preserving Formulas When Retrieving Data" on page 116
- "Retrieving a Range of Data" on page 119
- "Retrieving Data by Using a Function" on page 122
- "Retrieving Dynamic Calculation Members" on page 125

- "Specifying the Latest Time Period for Dynamic Time Series" on page 128
- "Using Free-Form Reporting to Retrieve Data" on page 131
- "Retrieving Data Using Visual Explorer" on page 140

Remember that you can perform common data retrieval tasks in any of these ways:

- Selecting commands from the Essbase menu on the spreadsheet application menu bar
- Clicking the appropriate icons on the Essbase toolbar
- Double-clicking the primary or the right-mouse button in the appropriate cell (for Retrieve, Zoom In, and Zoom Out commands only, and the Linked Objects command, if you have enabled that option).

Filtering Data

Despite the ease and speed with which you can navigate through large Essbase databases, it is not practical to use the capabilities of the spreadsheet application to filter and sort very large databases; however, Essbase includes powerful data filtering and sorting capabilities.

In Chapter 2, you learned to use Query Designer to define a dimensional layout and to select members to view. Query Designer also provides a powerful tool to define conditional retrievals.

Note:

If you skipped the tutorial in Chapter 2, follow the steps in "Creating Queries Using Query Designer" on page 69 to create and save the Basic1 query.

- To become familiar with the capabilities of Query Designer, work with the query, Basic1, that you saved in Chapter 2, and perform these steps:
- 1 Select Essbase, then Query Designer.

The query information panel of Query Designer is displayed.

- 2 In the navigation panel, select [Book1]Sheet1.
- 3 Right-click and select **Open Query**.

The Open Query dialog box is displayed.

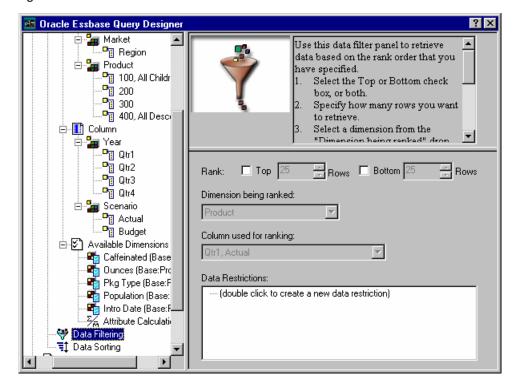
- 4 From the location that you specified in Chapter 2, select the Basic 1 file.
- 5 Click OK.

The member selection, displayed in the properties panel, remains unaltered from the last Query Designer session.

6 From the navigation panel, select **Data Filtering**.

Essbase displays the data filter settings in the data filter panel (see Figure 84). The filter controls the number of data rows that are retrieved. The number is based on the column criteria that you define. You can define data filtering criteria on data values that reside in one or more columns of the view.

Figure 84 Data Filter Panel



The data filtering panel contains these options:

- Rank—Ranks a specified number of top rows or a specified number of bottom rows of data. You can select the highest or lowest rows. Your selection is based on previously selected row dimension members. When using the top or bottom criterion, you specify the number of rows, such as "top 10." The default is the top 25 rows.
- Dimension being ranked—Specifies the dimension to which ranking should be applied.
- Column used for ranking—Specifies the data column on which data values are based.
- Data Restrictions—Specifies standard data comparison operations, such as greater than, less than, and equal to.
 - You can apply the comparison operator to data values, including negative data values, in one or more data columns; you can even apply criteria to compare values between two columns.
- OR and AND operators—If you define more than one criterion for a column, you can use these operators to link the criteria.
- 7 Select **Top**, and in **Rows**, enter a value of 30.

When you apply the query, Essbase retrieves the top thirty rows of the dimension.

8 From **Dimension being ranked**, select **Product**.

Product is the dimension to which ranking should be applied.

From Column used for ranking, select Qtr1, Actual.

Otr1, Actual is the column on which data values are based.

10 In the navigation panel, select **Data Filtering**. Right-click and select **Apply Query**.

Your query results should look like Figure 85.

Figure 85 Data Filtering Query Results

	A B	С	D	Е	F	G	Н	I	J ·
1					Profit				
2	<u> </u>	Qtr1		Qtr2		Qtr3		Qtr4	
3		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
4 East	Cola	2461	2550	2940	3050	3298	3440	2430	2410
5	Grape	645	840	676	860	710	920	618	800
6	Cream Soda	591	770	922	1010	522	660	592	530
7	Root Beer	562	960	610	1070	372	830	990	1500
8	Strawberry	545	700	612	750	625	780	525	670
9	Orange	290	350	327	380	377	420	394	440
10	Diet Cola	212	220	303	300	312	310	287	290
11	Caffeine Free Cola	74	110	109	130	130	190	100	150
12 Wes	t Cream Soda	2363	2620	2739	2970	2937	3230	2692	2850
13	Root Beer	2325	2570	2423	2720	2540	2820	2439	2840
14	Grape	1143	920	1167	960	1271	1020	1219	920
15	Cola	1047	1720	1189	1900	1339	2120	1018	1780
16	Orange	1002	810	1120	890	1192	1000	940	680
17	Caffeine Free Cola	62	310	-163	30	-286	-130	-123	70
18	Diet Cola	-67	320	-177	200	-154	250	-136	320
19	Strawberry	-738	-310	-783	-380	-900	-440	-779	-400
20 Sout	th Root Beer	1465	1640	1540	1700	1612	1710	1498	1330
21	Cola	745	1160	835	1280	1031	1490	965	1510
22	Cream Soda	561	810	529	770	591	840	669	930
23	Diet Cola	306	570	363	660	281	570	247	550
24 Cent	tral Cream Soda	2414	2770	2579	2930	2648	2980	2450	2690
25	Root Beer	2369	3310	2457	3350	2481	3470	2271	4130
26	Grape	1050	1030	1155	1120	1220	1150	970	890
27	Orange	991	910	1075	1020	1073	1010	1070	890
28			1130	1045	1320	1089	1340	889	1180
(Sheet1 / Sheet2 / Sheet3 /				1				•

You can further filter the data output by specifying data comparison operations in the Data Restrictions list box.

11 In the navigation panel, select **Data Filtering**.

The data filters that you specified are displayed in the properties panel.

12 In Data Restrictions, double-click.

The data restriction settings are displayed in the properties panel.

13 Select A value of, and enter 500 in value.

Observe that the "is" option in Data is changed to =.

- 14 Click the down arrow of **Data**, and select <=.
- 15 Click the down arrow of Column used for filter, and select Qtr1, Actual.
- 16 In the navigation panel, select **Data Filtering**, right-click, and select **Apply Query**.

Notice that the query results now reflect only Actual and Budget data that are less than or equal to 500.

- In the navigation panel, select Data Filtering to display the data filter setting in the properties panel.
- In Data Restrictions, select Qtr1, Actual <= 500, right-click, and select New Data Restriction. 18
- In **Data**, click the down arrow and select <.
- 20 Select the data values in, and select Qtr2, Actual.
- 21 Under Combined With Other Restrictions, select the Or option.
- 22 In the navigation panel, click **Data Filtering** to access the data filter panel.
- In Data Restrictions, double-click to create a data restriction.
- 24 In **Data**, click the down arrow and select **is not**.
- 25 Click #Missing Value.

This option instructs Essbase to discard data that have #Missing values.

- 26 In Column used for filter, select Qtr1, Actual.
- Under Combined With Other Restrictions, select the And option.
- In the navigation panel, click **Data Filtering** to access the data filter panel.

The data restrictions should be displayed as shown in Figure 86:

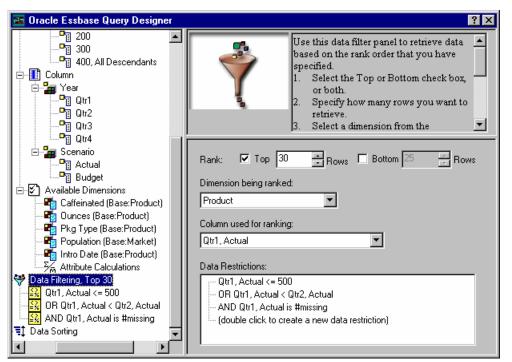


Figure 86 Data Filtering

Select the **Data Filtering** icon, right-click, and select **Apply Query**.

Essbase retrieves data for all the quarters. Notice that the retrieved data for Qtr1, Actual is less than or equal to 500 or is less than Qtr2, Actual. The results should be displayed as shown in Figure 87:

Figure 87 Data Filtering Results

	Α	В	С	D	Е	F	G	Н		J
1						Profit				
2			Qtr1		Qtr2		Qtr3		Qtr4	
3			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
4	East	Cola	2461	2550	2940	3050	3298	3440	2430	2410
5		Grape	645	840	676	860	710	920	618	800
6		Cream Soda	591	770	922	1010	522	660	592	530
7		Root Beer	562	960	610	1070	372	830	990	1500
8		Strawberry	545	700	612	750	625	780	525	670
9		Orange	290	350	327	380	377	420	394	440
10		Diet Cola	212	220	303	300	312	310	287	290
11		Caffeine Free Cola	74	110	109	130	130	190	100	150
12	West	Cream Soda	2363	2620	2739	2970	2937	3230	2692	2850
13		Root Beer	2325	2570	2423	2720	2540	2820	2439	2840
14		Grape	1143	920	1167	960	1271	1020	1219	920
15		Cola	1047	1720	1189	1900	1339	2120	1018	1780
16		Orange	1002	810	1120	890	1192	1000	940	680
17		Caffeine Free Cola	62	310	-163	30	-286	-130	-123	70
18		Diet Cola	-67	320	-177	200	-154	250	-136	320
19		Strawberry	-738	-310	-783	-380	-900	-440	-779	-400
20	South	Root Beer	1465	1640	1540	1700	1612	1710	1498	1330
21		Cola	745	1160	835	1280	1031	1490	965	1510
22		Diet Cola	306	570	363	660	281	570	247	550
23	Central	Cream Soda	2414	2770	2579	2930	2648	2980	2450	2690
24		Root Beer	2369	3310	2457	3350	2481	3470	2271	4130
25		Grape	1050	1030	1155	1120	1220	1150	970	890
26		Orange	991	910	1075	1020	1073	1010	1070	890
27		Diet Cola	908	1130	1045	1320	1089	1340	889	1180
28		Cola	843	1080	928	1180	915	1170	793	1060
29		Caffeine Free Cola	457	620	500	610	556	690	567	730
30		Strawberry	77	90	87	90	130	140	205	210 🔻
M	▶ ▶ \She	eet1 (Sheet2 (Sheet3 /				1)

If you wanted to delete all data restrictions, select the Data Filtering icon in the navigation panel, right-click, and select Delete All Data Restrictions. Alternatively, select any data restriction in the Data Restriction box, right-click, and select Delete All Data Restrictions.

To delete a particular data restriction, select the data restriction in the query outline, right-click, and select Delete Data Restriction. Alternatively, select the data restriction in the Data Restriction box, right-click, and select Delete Data Restriction.

Sorting Data

In the data sort panel, you can sort the output from the Basic1 query in ascending or descending order.

To sort the query:

1 From the navigation panel, select the **Data Sorting** icon.

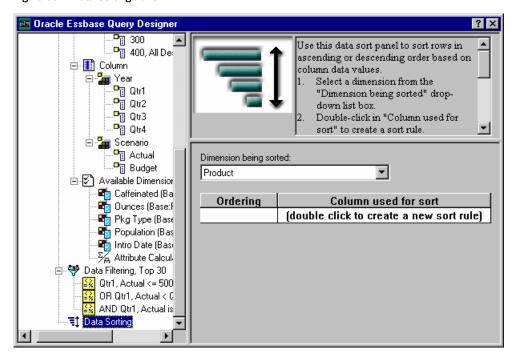
As shown in Figure 88, the data sorting settings are displayed in the properties panel. You can specify data sorting criteria that affect the order in which the selected rows are retrieved in the data sorting panel.

The data sorting panel contains these options:

- Dimension being sorted—Lists the dimensions specified in row format in the query.
- Column used for sort—Specifies one or more dimensions to be specified in column format in the query.
- Ordering—Specifies an ascending or descending sort order for the selected column.

You can specify sorting to occur over a specific row dimension group. For example, you can sort by Product or by Market.

Figure 88 **Data Sorting Panel**



Double-click on (double click to create a new sort rule).

The selection defaults to Qtr1, Actual. The sort order defaults to Ascending in the Ordering list box.

3 Click Ascending.

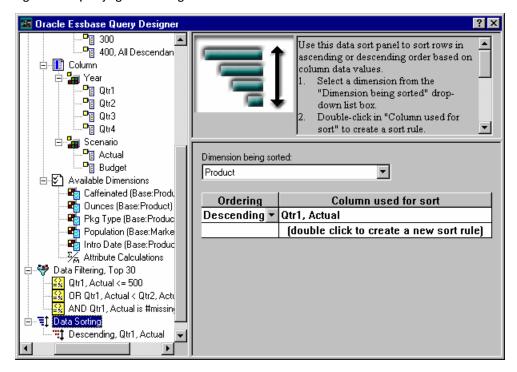
A down arrow is displayed next to Ascending.

4 Click the down arrow next to **Ascending**.

Descending is displayed below Ascending in the properties panel (see Figure 89).

5 In Ordering, select Descending.

Figure 89 Specifying Data Sorting Order



6 Double-click on (double click to create a new sort rule).

A new data sorting rule is added. The new selection defaults to "Qtr1, Actual."

7 Click the down arrow next to **Qtr1**, **Actual** and select **Qtr1**, **Budget**.

Observe that the order defaults to Ascending.

8 In the navigation panel, under Data Sorting, select Ascending, Qtr1, Budget, right-click, and select Delete Sorting Rule.

The "Ascending, Qtr1, Budget" sorting rule is deleted from the query.

9 In the navigation panel, select **Data Sorting**, right-click, and select **Apply Query**.

Essbase returns the results sorted in descending order for each quarter (see Figure 90):

Figure 90 Result of Filtering and Sorting Data

	В	С	D	Е	F	G	Н	1	J
1					Profit				ľ
2		Qtr1		Qtr2		Qtr3		Qtr4	
3		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
4	Cola	2461	2550	2940	3050	3298	3440	2430	2410
5	Grape	645	840	676	860	710	920	618	800
6	Cream Soda	591	770	922	1010	522	660	592	530
7	Root Beer	562	960	610	1070	372	830	990	1500
8	Strawberry	545	700	612	750	625	780	525	670
9	Orange	290	350	327	380	377	420	394	440
10	Diet Cola	212	220	303	300	312	310	287	290
11	Caffeine Free Cola	74	110	109	130	130	190	100	150
12	Cream Soda	2363	2620	2739	2970	2937	3230	2692	2850
13	Root Beer	2325	2570	2423	2720	2540	2820	2439	2840
14	Grape	1143	920	1167	960	1271	1020	1219	920
15	Cola	1047	1720	1189	1900	1339	2120	1018	1780
16	Orange	1002	810	1120	890	1192	1000	940	680
17	Caffeine Free Cola	62	310	-163	30	-286	-130	-123	70
18	Diet Cola	-67	320	-177	200	-154	250	-136	320
19	Strawberry	-738	-310	-783	-380	-900	-440	-779	-400
20	Root Beer	1465	1640	1540	1700	1612	1710	1498	1330
21	Cola	745	1160	835	1280	1031	1490	965	1510
22	Diet Cola	306	570	363	660	281	570	247	550
23	Cream Soda	2414	2770	2579	2930	2648	2980	2450	2690
24	Root Beer	2369	3310	2457	3350	2481	3470	2271	4130
25	Grape	1050	1030	1155	1120	1220	1150	970	890
26	Orange	991	910	1075	1020	1073	1010	1070	890
27	Diet Cola	908	1130	1045	1320	1089	1340	889	1180
28	Cola	843	1080	928	1180	915	1170	793	1060
29	Caffeine Free Cola	457	620	500	610	556	690	567	730
	Strawberry	77	90	87	90	130	140	205	210
 4 4	▶ M Sheet1 Sheet2	Sheet3 /			1				

Note:

The values that you are ranking and sorting must be the same. For example, you cannot specify Product in the "Dimension being ranked" drop-down list box and Market in the "Dimension being sorted" drop-down list box. If you specify different values, Query Designer automatically changes both values to the last specified value.

10 To close the worksheet, select File, then Close.

You do not need to save the worksheet.

Retrieving Data into Asymmetric Reports

When you retrieve data into a worksheet, the resulting report can be either *symmetric* or asymmetric. Symmetric reports are characterized by repeating identical groups of members. For example, Figure 90 on page 107 shows a symmetric report that contains Actual and Budget members nested below Year members (Qtr1, Qtr2, Qtr3, and Qtr4).

An asymmetric report is characterized by groups of nested members that differ by at least one member. There can be a difference in the number of members or in the names of members.

You can create asymmetric reports in multiple ways:

Enter member names into the worksheet in free-form retrieval mode.

- Use a drill action with the Within Selected Group option selected from the Zoom page of the Essbase Options dialog box.
- Suppress rows that contain missing values, zero values, or underscore characters during data retrievals.

If you retrieve data into an asymmetric report, Essbase must perform additional internal processing to maintain the asymmetric layout. This processing may increase the retrieval time on large reports. For more information regarding optimizing reports, see the Oracle Essbase Database Administrator's Guide.

As part of the default Essbase installation, the Asymm.xlsl sample file is provided that illustrates how to create asymmetric reports.

- To view the sample file, Asymm.xls:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Asymm.xls.

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. Contact the Essbase system administrator for more information.

	Α	В	С	D	Е	F	G
1	Sales						
2							
3			Actual	Budget	Budget	Budget	
4			Qtr1	Qtr2	Qtr3	Qtr4	
5	East	Colas	6292	6760	7300	5570	
6		Root Beer	5726	5650	5600	5780	
7		Fruit Soda	3735	4150	4350	3850	
8							
9	West	Root Beer	8278	7970	8320	7820	
10		Cream Soda	8043	7720	8300	7570	

Figure 91 Asymmetric Report

The sample file row and column dimension groups are asymmetric. Thus, the nested member groups from the Product dimension differ in member content within respective markets. For example, Colas and Fruit Soda are included in East but not in West. In addition, Actual data is displayed for Qtr1, whereas Budget data is displayed for Qtr2, Qtr3, and Qtr4. Also notice that the sample file displays styles for members of the Scenario and Year dimensions.

3 Leave the sample file open for the next tutorial task.

Pivoting in Asymmetric Reports

When you pivot a group of members in an asymmetric report, Essbase keeps only unique members from dimensions that are not involved in the pivot.

- To use the open Asymm.xls file to illustrate this point:
- Using the right-mouse button, drag East to the cell below Qtr1.

The result is shown in Figure 92.

Figure 92 Result of Pivoting in an Asymmetric Report

	Α	В	С	D	Е	F	G	Н	
1					Sales				
2									
3		Actual		Budget		Budget		Budget	
4		Qtr1		Qtr2		Qtr3		Qtr4	
5		East	West.	East	West	East	West	East	West
6	Colas	6292	6950	6760	8800	7300	9100	5570	8430
7	Root Beer	5726	8278	5650	7970	5600	8320	5780	7820
8	Fruit Soda	3735	8403	4150	5840	4350	6070	3850	5280
9	Cream Soda	4868	8043	4030	7720	3850	8300	3170	7570

Essbase combines the Product members into all unique members. For example, Root Beer, which is displayed twice in Figure 91 on page 108, is displayed only once in the current view. Colas, which is displayed in only one market in Figure 91, now is displayed in East and West.

Essbase also removes the blank line between Product row groups. A pivot action always eliminates any rows or columns in which all cells are empty.

Close the sample file without saving the changes.

Drilling Down to a Sample of Members (Optional)

Essbase is a multidimensional database engine that provides support for ad hoc analysis. Such analysis is entirely driven by the intuition of the analyst and can be time-consuming as data volume increases. Large cubes tend to have more dimensions and sometimes more levels, making hierarchical navigation very cumbersome.

By drilling down to a portion of the members in an Essbase database, you can quickly analyze a large multidimensional database with a focus on data trends. This type of drilling down is also called "metadata sampling."

Metadata sampling enables you to analyze on large cubes with a focus on data trends or to approximate information in the initial stages. Because you query on a "sample" of the members, retrieval is quick. Metadata sampling enables you to drill down to a portion of the vast number of members of an Essbase database in a fraction of the time that it usually takes to analyze the entire Essbase database. You can view many samples in a small amount of time and make early decisions. Later, you can follow up with organized data exploration.

With the introduction of Hybrid Analysis, you can store part of an Essbase cube in a relational database. Metadata sampling enables you to drill down on all members that you specify, whether they reside in Essbase or in an underlying relational database.

To drill down to a sample of members, you must to connect to a server, an application, and a database. Next, enable sampling in the Spreadsheet Add-in for Excel and set a percentage amount of data to query when drilling down to more detail (performing a Zoom In operation).

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To drill down to a sample of members:
- 1 Select Essbase, then Sample Data (Zoom In) to enable sampling.

A check mark displayed next to the Sample Data (Zoom In) menu command indicates that sampling is enabled.

- 2 Select Essbase, then Options.
- 3 In Essbase Options, select Zoom.
- 4 In Sampling Percentage, enter an integer between 1 and 100 to represent the approximate percentage amount of the Essbase cube to query during a Zoom In operation.

The default value is 100.

Note:

If Hybrid Analysis is enabled and in use, the sampling percentage also applies to queries on the underlying relational database.

5 Click **OK** to save the sampling percentage integer that you entered and any other Zoom options that you have set.

The Essbase Options dialog box is closed and you are returned to the spreadsheet.

- 6 In the spreadsheet, select the member on which you want to drill down.
- 7 Select **Essbase**, then **Zoom In** or double-click the primary mouse button.

For example, if you entered 50 in the Sampling Percentage text box, approximately 50 percent of the members from your Essbase database and, if applicable, from the specified columns of the relational database are queried when you select Zoom In.

Notes on Sampling

- When drilling down on Hybrid Analysis, these limitations apply:
 - Sampling with the All Levels option is not supported with Hybrid Analysis members.
 - Sampling with Same Level and Same Generation options are not supported.
- When sampling is enabled, a combination of the algorithms used by Essbase and the sampling percentage you set sometimes makes these scenarios possible:
 - During a Zoom In operation, no members are retrieved. This can happen in some cases where a dimension is small.

During a Zoom In operation, all members are retrieved. This can happen in some cases where the sampling percentage is very small.

Working with Formatted Worksheets

In addition to providing flexible, ad hoc retrievals, Essbase supports retrieving data into formatted worksheets. A worksheet can contain these formats:

- Spaces between rows and columns
- Cell values that contain text or data that is not defined in the database outline
- Member names in noncontiguous locations at the top of a worksheet
- Spreadsheet formulas (see also "Preserving Formulas When Retrieving Data" on page 116)
- Visual cues (styles)

After you format and save a worksheet, you may want to retrieve and navigate through new data in the existing worksheet format. These topics provide information on working with formatted worksheets:

- "Observing the Rules for Working with Formatted Worksheets" on page 111
- "Retrieving Data into Formatted Worksheets" on page 112
- "Pivoting Data on Formatted Worksheets" on page 114

Observing the Rules for Working with Formatted Worksheets

Observe these rules when retrieving data into a formatted worksheet:

Rule 1

In the worksheet, no numeric cells can be located before the first Essbase data cell. For example, in Figure 93 on page 112, the first Essbase data cell is B6. Neither any cell in rows 1 through 5 nor cell A6 can contain numeric values. Also, these cells cannot contain formulas that resolve to numeric values.

Rule 2

A cell that lies within a row or column of Essbase data cannot contain text or numeric values. For example, in Figure 93 on page 112, the cells in columns B, C, D, and F and rows 6 through 9 and 11 through 14 cannot contain any nondata text or numbers, for such values may be overwritten, or emptied, by the retrieved data. These cells can contain formulas, however, if Formula Preservation options are used. For more information on Formula Preservation options, see "Preserving Formulas When Retrieving Data" on page 116.

Tip:

If you need to preserve text in a cell, define that text or value as a spreadsheet formula, and use the Formula Preservation options.

Rule 3

The Pivot command is not available when the Retain on Retrieval option is selected in the Mode page of the Essbase Options dialog box.

Rule 4

The Pivot command removes all cells that contain text other than database member names.

Retrieving Data into Formatted Worksheets

As part of the default Essbase installation, the P&1.xls sample file is provided that illustrates how to retrieve data into a formatted worksheet. The sample file illustrates how to retrieve data into a worksheet that contains formatted text, formulas, and protected cells.

- To view the P&1.x1s worksheet:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open P&l.xls.

An example of the worksheet is shown in Figure 92.

Note:

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. Contact the Essbase system administrator for more information.

В C D G The Beverage Company Market: Central 1 Product: 200 Planning Dept. 2 3 Scenario: Budget 4 5 Feb Mar Qtr1 Jan 6 Misc 10 0.30 10 200 200 200 0.07 Payroll 600 350 350 350 1050 12.47 8 Marketing 9 Total Expenses 555 560 560 1675 19.89 10 11 COGS 1170 1180 1200 3550 42.16 12 Sales 2740 2820 2860 8420 100.00 13 Margin 1570 1640 1660 4870 57.84 14 Profit 1015 1080 1100 3195 37.95 15 16 Ratio Analysis 17 Markup 57.3% 58.2% 58.0% 57.8% 18 Marketing % 12.8% 12.4% 12.2% 12.5%

Figure 93 A Sample Formatted Worksheet

- 3 Select Essbase, then Options and select Display.
- 4 In Cells, make sure that Adjust Columns is selected.

- Select Mode.
- In Formula Preservation, select Retain on Retrieval to enable Formula Preservation mode.

Note:

When Retain on Retrieval is selected, there may be a slight delay in retrieval time.

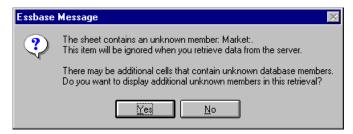
Click OK.

By default, an Essbase retrieval overwrites the spreadsheet formula with data values in the retrieval area of a worksheet. The retrieval process also eliminates formulas in cells outside the retrieval area. The Retain on Retrieval option, however, enables you to define retrievals that do not overwrite formulas in any area of the worksheet.

Select Essbase, then Retrieve to update the worksheet with the latest data values.

Essbase determines that some text cells in the worksheet do not correspond to database member names. When Essbase is unable to resolve text in the worksheet, the message shown in Figure 94 is displayed:

Figure 94 Essbase Unknown Member Message



In this example, the first unknown member detected is Market: (in cell A1). Essbase does not recognize the colon (:) that follows Market in the cell. If you click Yes, Essbase displays the next unknown member; if you click No, Essbase continues with the retrieval.

Note:

If you work with formatted worksheets often, you may want to configure Essbase so that this message is not displayed. See "Pivoting Data on Formatted Worksheets" on page 114.

Click No to close the dialog box and continue with the retrieval.

Essbase retrieves new data but retains the formatting and formulas in the worksheet. The result is shown in Figure 95.

Figure 95 Result of Retrieving on a Formatted Worksheet

	Α	В	С	D	E	F	G	Н
1	Market:	Central				The Bevo	erage Comp	any
2	Product:	200				Planning D	ept.	
3	Scenario:	Budget						
4								
5		Jan	Feb	Mar		Qtr1	% Sales	
6	Misc	#Missing	#Missing	#Missing		0	0.00	
7	Payroll	210	210	210		630	0.07	
8	Marketing	300	310	320		930	11.05	
9	Total Expenses	510	520	530		1560	18.53	
10								
11	cogs	1170	1180	1200		3550	42.16	
12	Sales	2740	2820	2860		8420	100.00	
13	Margin	1570	1640	1660		4870	57.84	
14	Profit	1060	1120	1130		3310	39.31	
15								
16	Ratio Analysis		•					
17	Markup	57.3%	58.2%	58.0%	•	57.8%		
18	Marketing %	10.9%	11.0%	11.2%		11.0%		

10 Close the file without saving it.

Note:

The section on "Preserving Formulas When Retrieving Data" on page 116 provides additional tutorial tasks that show you how to take advantage of all the Formula Preservation options.

Pivoting Data on Formatted Worksheets

Using the Pivot command, you can produce ad hoc reports in both formatted and unformatted worksheets. A formatted worksheet, however, may contain labels and formulas that make the result of a pivot operation ambiguous. The pivot is designed to compress and retain only the database elements represented in the worksheet. The worksheet also retains labels in areas that are not overwritten by pivoted data.

Note:

Essbase prevents pivot operations on worksheets that contain formulas when Formula Preservation mode is active.

As part of the default Essbase installation, the Inv.xls sample file is provided which illustrates how to pivot data in a worksheet. The sample file was saved with the Retain on Retrieval option disabled so that you can pivot on its worksheets.

- To view the Inv.xls worksheet:
- 1 Select File, then Open.
- From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Inv.xls.

An example of this worksheet is shown in Figure 96.

Note:

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. Contact the Essbase system administrator for the location of the file.

Figure 96 Formatted Worksheet Before Pivoting

	A	В	C	D	E	F	G
1	Market		Inventory .	Analysis			
2	Actual						
3			Jan	Feb	Mar		Qtr1
4							
5	Sales	100	8314	8327	8407		25048
6		200	8716	8960	8951		26627
7		300	7874	8046	8077		23997
8		400	6634	6736	6778		20148
9		Product	31538	32069	32213		95820
10							
11	Opening Inventory	100	29448	29124	28929		29448
12	* Adjusted for Audit	200	33000	32100	31125		33000
13		300	28865	28964	29095		28865
14		400	26092	26246	26409		26092
15		Product	117405	116434	115558		117405
16							
17	Stock to Sales		3.72	3.63	3.59		
18			=====	=====	=====		

- 3 Select Essbase, then Options and select Global.
- 4 In Display Messages , clear Display Unknown Members to avoid seeing the Essbase messages when working with formatted worksheets, and click **OK**.
- Using the right-mouse button, drag Sales (in cell A5) to the cell nested below Jan (C4).

Essbase pivots the Sales member group so that it is nested below the monthly members. During the pivot, however, Essbase retains only database elements. For example, all data for Stock to Sales and Adjusted for Audit is deleted during the pivot.

The result is shown in Figure 97.

Figure 97 Result of Pivoting on a Formatted Worksheet

	A	В	C	D	E	F	G
1			Inventory Analysi	is	Market		
2					Actual		
3		Jan		Feb		Mar	
4		Sales	Opening Inventory	Sales	Opening Inventory	Sales	Opening Inventory
5							
6	100	8314	29448	8327	29124	8407	28929
7	200	8716	33000	8960	32100	8951	31125
8	300	7874	28865	8046	28964	8077	29095
9	400	6634	26092	6736	26246	6778	26409
10	Product	31538	117405	32069	116434	32213	115558
11							
12	* Adjusted for Audit						
13							
14							
15							
16							
17	Stock to Sales						
18			=====	:: =====	=====	=	

6 Close the file without saving it.

Preserving Formulas When Retrieving Data

In "Retrieving Data into Formatted Worksheets" on page 112, you used the Retain on Retrieval option to preserve formatting and formulas in an existing worksheet. Collectively, the Formula Preservation options enable you to retain formulas during data retrievals, keep and remove only operations, and drill operations. In addition, Essbase can replicate formulas for additional members retrieved into the worksheet as part of a drilling operation. This topic shows you how to create a report using all of the Formula Preservation options.

Keep in mind these guidelines and restrictions when using the Formula Preservation options:

- On the Mode page of the Essbase Options dialog box, you must have the Advanced Interpretation option selected to enable Retain on Retrieval. The Formula Preservation options do not work with free-form retrieval mode.
- You must enable Retain on Retrieval to enable Retain on Keep and Remove Only and Retain on Zooms.
- You must enable Retain on Zooms to enable Formula Fill.
- When you select the Retain on Retrieval option, the Suppress #Missing Rows and Zero Rows options on the Display page are not available. If you selected either of the Display options, the Formula Preservation options become unavailable automatically.
- When you select the Retain on Zooms option, the Remove Unselected Groups option on the Zoom page is not available. When you enable the Remove Unrelated Groups option, Retain on Zooms becomes unavailable automatically.
- When Retain on Retrieval is selected, retrieval time may be slightly delayed.

- As a general rule, insert a blank row as the last row in the formula range. This action ensures that the cell range in the formula expands properly when you drill down on members when Retain on Zooms is selected.
- Formula arrays are not supported in Spreadsheet Add-in when the preserve formula option is on. If formula arrays are in the worksheet, Essbase does not preserve these types of formulas.
- To preserve formulas when retrieving or retaining data:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Select Essbase, then Retrieve.
- 3 In cell A2, drill down (double-click) on Year.
- Press and hold down the Alt key and, in cell E1, drill down (double-click) on Scenario.
- 5 Select cell G3 and enter this formula in the cell: =B3/B\$7*100 (see Figure 98).

The \$ in front of the 7 anchors the formula to the Year member.

Figure 98 Entering a Formula into a Cell

	Α	В	С	D	Е	F	G
1		Measures	Product	Market			
2		Actual	Budget	Variance	Variance %	Scenario	
3	Qtr1	24703	30580	-5877	-19.21844343	24703	=B3/B\$7*100
4	Qtr2	27107	32870	-5763	-17.53270459	27107	
5	Qtr3	27912	33980	-6068	-17.85756327	27912	
6	Qtr4	25800	31950	-6150	-19.24882629	25800	
7	Year	105522	129380	-23858	-18.44025352	105522	

6 Press Enter.

The spreadsheet calculates the formula that you entered in cell G3 and now reflects Qtr1 as a percentage of Year. The result is shown in Figure 99.

Figure 99 Result of Calculated Formula with Essbase Data

	Α	В	С	D	Е	F	G
1		Measures	Product	Market			
2		Actual	Budget	Variance	Variance %	Scenario	
3	Qtr1	24703	30580	-5877	-19.21844343	24703	23.41028411
4	Qtr2	27107	32870	-5763	-17.53270459	27107	
5	Qtr3	27912	33980	-6068	-17.85756327	27912	
6	Qtr4	25800	31950	-6150	-19.24882629	25800	
7	Year	105522	129380	-23858	-18.44025352	105522	

- 7 Select **Essbase**, then **Options** and select **Mode**.
- 8 In Formula Preservation, select Retain on Retrieval and Retain on Keep and Remove Only, and click OK.

- 9 In cells D2, E2, and F2, respectively, select Variance, %Variance, and Scenario.
- 10 Select Essbase, then Remove Only.

Essbase removes the selected columns but retains the formula that you entered, keeping it with the retained dataset. The result is shown in Figure 100.

Figure 100 Result of Removing Columns With Retain on Keep and Remove Only Selected

	Α	В	С	D	E
1		Measures	Product	Market	
2		Actual	Budget		
3	Qtr1	24703	30580	23.41028411	
4	Qtr2	27107	32870		
5	Qtr3	27912	33980		
6	Qtr4	25800	31950		
7	Year	105522	129380		
8					
9					
10					

- 11 Select **Essbase**, then **Options** and select **Mode**.
- 12 In Formula Preservation, select Retain on Zooms, and click OK.
- 13 In cell A3, drill down (double-click) on Qtr1.

Essbase drills down on Qtr1 and moves the formula down with the Qtr1 member. The result is shown in Figure 101.

Figure 101 Result of Drilling Down with Retain on Zooms Enabled

	Α	В	С	D	E
1		Measures	Product	Market	
2		Actual	Budget		
3	Jan	8024	9940		
4	Feb	8346	10350		
5	Mar	8333	10290		
6	Qtr1	24703	30580	23.41028411	
7	Qtr2	27107	32870		
8	Qtr3	27912	33980		
9	Qtr4	25800	31950		
10	Year	105522	129380		
11					

- 14 Select Essbase, then FlashBack.
- 15 Select Essbase, then Options and select Mode.
- 16 In Formula Preservation, select the Formula Fill, and click OK.
- 17 In cell A3, drill down (double-click) on Qtr1.

Essbase drills down on Qtr1 and replicates the formula for each member of Qtr1 (Jan, Feb, and Mar). To view the replicated formulas, click in cells D3, D4, D5, and D6 and look at the new syntax in the spreadsheet formula bar. The result is shown in Figure 102.

Figure 102 Result of Drilling Down with Formula Fill Enabled

	Α	В	С	D	E
1		Measures	Product	Market	
2		Actual	Budget		
3	Jan	8024	9940	29.60121002	
4	Feb	8346	10350	29.9011178	
5	Mar	8333	10290	32.29844961	
6	Qtr1	24703	30580	23.41028411	
7	Qtr2	27107	32870		
8	Qtr3	27912	33980		
9	Qtr4	25800	31950		
10	Year	105522	129380		
11					

- 18 Before moving on with the tutorial, complete each of these tasks:
 - Select Essbase, then Options, and select Mode.
 - Clear all Formula Preservation options. b.
 - Select File, then Close, to close the worksheet. c.

You do not need to save the worksheet.

Retrieving a Range of Data

In a typical worksheet, you can select a range of cells by dragging the mouse across the worksheet. You can also select a range of cells and tell Essbase to restrict the data retrieval to the selected range in the worksheet. Retrieving a range of data is particularly useful in these situations:

- A worksheet contains multiple reports.
- A worksheet contains extraneous information that is not supported in a formatted report retrieval.
- You need to retrieve only a small subset of values from the server, thus dramatically decreasing retrieval time for large datasets.
- You need to retrieve data to an area of the worksheet other than the first column.

As part of the default Essbase installation, the Profit.xls sample file illustrates how to retrieve a range of data.

- To view Profit.xls:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Profit.xls.

Note:

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. Contact the Essbase system administrator for the location of the file.

As shown in Figure 103, when you open Profit.xls, the range of cells from B2 through F9 has already been selected for you.

Figure 103 Selected Range of Cells for Retrieval

	Α	В	С	D	E	F	G	Н
1								
2			100	Central				
3			Actual		Budget			
4			Sales	Profit %	Sales	Profit %		
5		Qtr1	1111	27.3	2222	34.5		
6		Qtr2	1111	28.4	2222	35.1		
7		Qtr3	1111	28.8	2222	35.3		
8		Qtr4	1111	27.6	2222	38.1		
9		Year	1111	28.1	2222	35.7		
10						· ·		
11								
12				Central	Actual	Profit %		
13			Qtr1	Qtr2	Qtr3	Qtr4	Year	
14		100-10	22.0	22.0	22.0	22.0	22.0	
15		100-20	22.0	22.0	22.0	22.0	22.0	
16		100-30	22.0	22.0	22.0	22.0	22.0	

3 Select **Essbase**, then **Retrieve** to update the selected range.

Essbase updates only the data in the selected range of cells (see Figure 104).

Figure 104 Result of Retrieving First Range of Data

	Α	В	С	D	Е	F	G	Н
1								
2			100	Central				
3			Actual		Budget			
4			Sales	Profit %	Sales	Profit %		
5		Qtr1	8074	27.3	8200	34.5		
6		Qtr2	8701	28.4	8870	35.1		
7		Qtr3	8894	28.8	9060	35.3		
8		Qtr4	8139	27.6	7800	38.1		
9		Year	33808	28.1	33930	35.7		
10								
11								
12				Central	Actual	Profit %		
13			Qtr1	Qtr2	Qtr3	Qtr4	Year	
14		100-10	22.0	22.0	22.0	22.0	22.0	
15		100-20	22.0	22.0	22.0	22.0	22.0	
16		100-30	22.0	22.0	22.0	22.0	22.0	

4 Select cells B12 through G16 (see Figure 105).

Figure 105 Selecting Cells for Retrieval

	Α	В	С	D	Е	F	G	Н
1								
2			100	Central				
3			Actual		Budget			
4			Sales	Profit %	Sales	Profit %		
5		Qtr1	8074	27.3	8200	34.5		
6		Qtr2	8701	28.4	8870	35.1		
7		Qtr3	8894	28.8	9060	35.3		
8		Qtr4	8139	27.6	7800	38.1		
9		Year	33808	28.1	33930	35.7		
10								
11								
12				Central	Actual	Profit %		
13			Qtr1	Qtr2	Qtr3	Qtr4	Year	
14		100-10	22.0	22.0	22.0	22.0	22.0	
15		100-20	22.0	22.0	22.0	22.0		
16		100-30	22.0	22.0	22.0	22.0	22.0	1

5 Select **Essbase**, then **Retrieve** once again to update the selected range.

Essbase updates the data in the selected range (see Figure 106).

Figure 106 Result of Retrieving Second Range of Data

	Α	В	С	D	E	F	G	Н
1								
2			100	Central				
3			Actual		Budget			
4			Sales	Profit %	Sales	Profit %		
5		Qtr1	8074	27.3	8200	34.5		
6		Qtr2	8701	28.4	8870	35.1		
7		Qtr3	8894	28.8	9060	35.3		
8		Qtr4	8139	27.6	7800	38.1		
9		Year	33808	28.1	33930	35.7		
10								
11								
12				Central	Actual	Profit %		
13			Qtr1	Qtr2	Qtr3	Qtr4	Year	
14		100-10	24.6	25.1	24.7	23.8	24.6	
15		100-20	29.6	31.3	32.1	29.7	30.7	
16		100-30	28.9	30.0	31.0	31.4	30.4	

6 Close the file without saving it.

Retrieving Data by Using a Function

The Essbase cell retrieve function, EssCell, retrieves a single database value into a worksheet cell. Enter an EssCell function directly into a worksheet or select an EssCell function from the spreadsheet menu bar.

Note:

You must be connected to a database to use EssCell.

EssCell retrieves data when you perform an Essbase retrieval or when you recalculate a worksheet through Excel. As part of the default Essbase installation, the Summary.xls sample file is provided with EssCell functions already set in cells B16 and B17.

- To view Summary.xls:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Summary.xls.

Note:

Depending on how software is installed on your computer, the file may not be available or may be located in a different directory. Contact the Essbase system administrator for the location of this file.

Figure 107 Worksheet Containing EssCell Functions

	Α	В	С	D	E	F	G
1	200						
2	Texas						
3							
4		Budget					
5		Qtr1	Qtr2	Qtr3	Qtr4	Year	
6	Sales	1460	1560	1630	1320	5970	
7	cogs	560	590	630	500	2280	
8	Margin	900	970	1000	820	3690	
9	Marketing	160	160	170	120	610	
10	Payroll	60	60	60	110	290	
11	Misc	#Missing	#Missing	#Missing	#Missing	#Missing	
12	Total Expenses	220	220	230	230	900	
13	Profit	680	750	770	590	2790	
14							
15							
16	Year Sales						
17	Year Margin %	#N/A					

In Excel, cells B16 and B17 contain the EssCell function. If you select either of these cells, you can view the syntax for the EssCell function in the formula bar at the top of the worksheet.

The EssCell function in Excel is defined in a cell as follows:

=EssCell(mbrList)

In Excel, mbrList is one of these factors:

- A null value— If the parameters of the function are empty, Essbase returns the data value from the top of each dimension.
- A comma-delimited list of member names—Member names must be enclosed in double quotation marks, with only one member per dimension allowed. If you list no members from a particular dimension, the function returns the data value from the top member of the unspecified dimension. Furthermore, you can include aliases in the member list, subject to the same rules as member names.
- A worksheet cell reference—The reference must point to a cell that contains a valid member name. Member names, such as 200 and 300-10, need to be formatted as text cells, rather than numeric cells.

For example, the syntax for the EssCell function in cell B16 in the Summary.xls file for Excel is as follows:

```
=EssCell("Sales", A1, A2, B4, F5)
```

When you open the worksheet, the values in these cells are #N/A. To update the values with the data in your database, you must perform a retrieval from Essbase.

3 Select Essbase, then Retrieve.

Essbase calculates the EssCell functions in cells B16 and B17.

Figure 108 Retrieval on a Worksheet Containing the EssCell Function

	Α	В	С	D	E	F
1	200					
2	Texas					
3						
4		Budget				
5		Qtr1	Qtr2	Qtr3	Qtr4	Year
6	Sales	1460	1560	1630	1320	5970
7	cogs	560	590	630	500	2280
8	Margin	900	970	1000	820	3690
9	Marketing	160	160	170	120	610
10	Payroll	60	60	60	110	290
11	Misc	#Missing	#Missing	#Missing	#Missing	#Missing
12	Total Expenses	220	220	230	230	900
13	Profit	680	750	770	590	2790
14						
15						
16	Year Sales	5970				
17	Year Margin %	61.81				

Now update the EssCell functions to retrieve data for a different state.

4 Change the contents of cell A2 from Texas to Florida.

The values in cells B16 and B17 are updated as soon as you update the cell. The update occurs because Excel has recalculated the worksheet (if you have configured Excel to calculate changes automatically). The remaining data cells do not change. To completely update the worksheet, you must retrieve data from the server.

Figure 109 Updating the EssCell Function

	Α	В	С	D	Е	F
1	200					
2	Florida					
3						
4		Budget				
5		Qtr1	Qtr2	Qtr3	Qtr4	Year
6	Sales	1460	1560	1630	1320	5970
7	cogs	560	590	630	500	2280
8	Margin	900	970	1000	820	3690
9	Marketing	160	160	170	120	610
10	Payroll	60	60	60	110	290
11	Misc	#Missing	#Missing	#Missing	#Missing	#Missing
12	Total Expenses	220	220	230	230	900
13	Profit	680	750	770	590	2790
14						
15						
16	Year Sales	5030				
17	Year Margin %	60.04				

Tip:

If the worksheet contains many EssCell functions, change the spreadsheet to manual calculation mode. This change prevents the cells that contain EssCell functions from calculating until you retrieve data or calculate the worksheet manually. For more information on manual calculation mode, see the Excel documentation.

Select Essbase, then Retrieve to update the report.

Essbase returns an error message if EssCell is unsuccessful. Table 3 lists messages that Essbase displays in the EssCell cell and explains the conditions that cause the messages:

Table 3 EssCell Messages

Message	Reason
#N/A	The worksheet is not connected to a database.
#VALUE!	A member name in the list or reference is invalid.
#NAME?	A text name in the function does not contain double quotation marks.

Close the file without saving it.

EssCell functions are already defined in the sample file that you used for this tutorial task.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To enter your own EssCell function into a worksheet:
- 1 From the Excel menu bar, select **Insert**, then **Function**
- 2 From the Function Category list, select Essbase Add-in

The Excel Function Wizard instructs you in defining the EssCell function.

Note:

For more information on EssCell functions, see Oracle Essbase Spreadsheet Add-in Online Help.

Retrieving Dynamic Calculation Members

Dynamic calculation members are database members that are excluded from the batch calculation process, thus shortening the regular database calculation time.

The Essbase application designer tags dynamic calculation members in the database outline so that Essbase knows not to calculate those members until a data retrieval requests them. This process is referred to as dynamic calculation. Dynamically calculating database members benefits Essbase Server in these ways:

- Reduced disk usage
- Reduced database restructuring time
- Reduced time to back up the database

Database values that Essbase calculates dynamically take slightly longer to retrieve in Spreadsheet Add-in because calculations must be performed before retrieving data into the worksheet. For more information on dynamic calculation, see the Oracle Essbase Database Administrator's Guide.

Tip:

Enable the Navigate Without Data feature while you arrange the spreadsheet report so that Essbase does not dynamically calculate the database as the report is being created. For more information on the Navigate Without Data feature, see "Navigating Through the Worksheet Without Retrieving Data" on page 49.

Because there may be a performance impact on retrieving data for dynamic calculation members, define visual cues, or styles, for these members so that you can identify them in Spreadsheet Add-in.

As part of the defaultEssbase installation, the Asymm.xls sample file is provided that illustrates how to use Dynamic Calculation members.

- To view Asymm.xls:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Asymm.xls.
- 3 To drill up on Actual, in cell **C3**, double-click the right-mouse button.
- 4 In cell C3, drill down on Scenario to display all members of Scenario.

Essbase displays only the Scenario members for Qtr1 (see Figure 110).

	Α	В	С	D	E	F	G
1					Sales		
2							
3			Actual	Budget	Variance	Variance %	Scenario
4			Qtr1	Qtr1	Qtr1	Qtr1	Qtr1
5	East	Colas	6292	5870	422	7.189097104	6292
6		Root Beer	5726	5460	266	4.871794872	5726
7		Fruit Soda	3735	3880	-145	-3.737113402	3735
8							
9	West	Root Beer	8278	7700	578	7.506493506	8278
10		Cream Soda	8043	6890	1153	16.73439768	8043

Figure 110 Displaying Scenario Members

5 Select Essbase, then Options and select Style.

Note:

You must be connected to the Sample Basic database to display the Style page. For more information on connecting to a database, see "Connecting to a Database" on page 93.

- 6 In Members, scroll down until you see Dynamic Calculations.
- Select Dynamic Calculations, and click Format.
- In Font style list, select Bold Italic.
- In the Color list, select Gray.
- 10 Click **OK**, and select **Display**.
- 11 In Cells, click Use Styles, and click OK.
- 12 Select Essbase, then Retrieve.

Essbase displays the data and applies all the visual cues, or styles, that you set, including the newly set styles for dynamic calculation members and the styles you set in Chapter 2. You know that the columns for Variance and Variance% are dynamically calculated because Essbase displays these members in gray, bold, italicized font. (Variance and Variance% both display a red background because that style was previously set for all members of the Scenario dimension.)

The result is shown in Figure 111.

	Α	В	С	D	E	F	G
1					Sales		
2							
3			Actual	Budget	Variance	Variance %	Scenario
4			Qtr1	Qtr1	Qtr1	Qtr1	Qtr1
5	East	Colas	6292	5870	422	7.189097104	6292
6		Root Beer	5726	5460	266	4.871794872	5726
- 7		Fruit Soda	3735	3880	-145	-3.737113402	3735
8							
9	West	Root Beer	8278	7700	578	7.506493506	8278
10		Cream Soda	8043	6890	1153	16.73439768	8043

Figure 111 Result of Retrieving Dynamic Calculation Members

Note:

Occasionally, other styles that you have set will override a style for dynamic calculation members. For example, if a parent member is also a dynamic calculation member, and if you have set styles for both parent and dynamic calculations, the style for the parent member overrides the style for the dynamic calculation member. You must remove the style for parent members in order to see the style for dynamic calculation members. For more information on the precedence of styles, see "Precedence of Overlapping Styles" on page 61.

13 Close the Asymm.xls file without saving it.

Specifying the Latest Time Period for Dynamic Time Series

Dynamic Time Series members are predefined database members that are used in dynamic, todate reporting, such as year-to-date or month-to-date values. Dynamic Time Series members are not displayed as individual members in the database outline; instead, they correspond to a generation name that uses a key term for time, such as year, month, or day.

For example, in the Sample Basic database, a generation name called Quarter was created for generation 2 in the Year dimension. Generation 2 includes the members for Qtr1, Qtr2, Qtr3, and Qtr4. When the generation name Quarter was created, Essbase created a Dynamic Time Series member called Q-T-D, or quarter-to-date.

To take advantage of Dynamic Time Series in Spreadsheet Add-in, choose the latest time period for which you want data in a to-date calculation. The calculated value of the Dynamic Time Series member is derived when you define the latest time period to be reported.

In the Sample Basic database, for example, the level 0 members of the Year dimension are the months of the year: Jan, Feb, Mar, and so on. If the current month is August and you want to know the sales data for the quarter up to the current month, a quarter-to-date calculation gives you the sales data for the months of July and August.

- To illustrate the concept of Dynamic Time Series:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Select Essbase, then Options, and select Zoom.
- 3 In the **Zoom In**, select **Next Level**.
- 4 Clear Within Selected Group, and click OK.
- 5 Select **Essbase**, then **Retrieve**.
- 6 In cell **B1**, drill down on (double-click) Measures.
- 7 In cell B2, click Year.
- 8 Enter Q-T-D in cell **B2** and press **Enter** to specify a predefined Dynamic Time Series member (Q-T-D). The result is shown in Figure 112.

Figure 112 Entering a Dynamic Time Series Member into a Worksheet

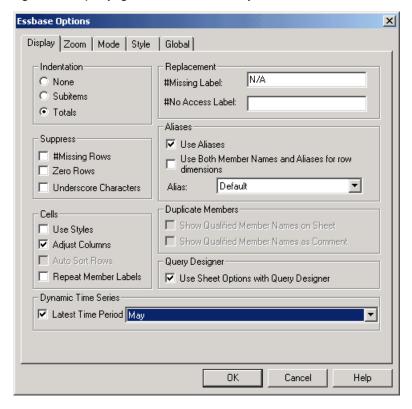
	Α	В	С	D	Е
1			Product	Market	Scenario
2	Profit	Q-T-D	105522		
3	Inventory	Year	117405		
4	Ratios	Year	55.26162827		
5	Measures	Year	105522		
6					
7					

Note:

For a list of other possible Dynamic Time Series members, see Oracle Essbase Spreadsheet Addin Online Help.

- 9 Select **Essbase**, then **Options**, and select **Display**.
- 10 In Dynamic Time Series, select Latest Time Period, and select May (see Figure 113).

Figure 113 Specifying Latest Time Period in a Dynamic Time Series



Note:

If you do not specify a latest time period, Essbase uses the first level 0 member (Jan) as the default.

- 11 Click OK.
- 12 Select Essbase, then Retrieve.

Note:

The Retrieve & Lock, Zoom In, and Zoom Out commands are not supported with Dynamic Time Series members.

Essbase displays data for the Q-T-D member (see Figure 114). The data values in the worksheet are the aggregated values for April and May, because May is the month that you specified as the latest month in the quarter-to-date Dynamic Time Series.

Figure 114 Result of Specifying Latest Time Period in a Dynamic Time Series

	Α	В	С	D	Е
1			Product	Market	Scenario
2	Profit	Q-T-D	17573		
3	Inventory	Year	117405		
4	Ratios	Year	55.26162827		
5	Measures	Year	105522		

13 To close the worksheet, select **File**, then **Close**.

You do not need to save the worksheet.

In Advanced Interpretation mode, you can also create a report like the one shown Figure 114 by typing the name of the Dynamic Time Series member followed by the name of the latest time period in parentheses (for example Q-T-D (May)). If you are using Free-Form retrieval mode, you must enter the Dynamic Time Series member enclosed in quotation marks (for example, "Q-T-D") and the latest time period also enclosed in quotes (for example, ("May")) in separate, adjacent cells. You can also select a Dynamic Time Series member and a latest time period through Query Designer or through Member Selection.

For more information on Dynamic Time Series, see Oracle Essbase Spreadsheet Add-in Online Help.

Using Substitution Variables

The Essbase application designer uses substitution variables to define global variables to represent values that are specific to Essbase. For example, Latest can be a substitution variable representing the latest time period in a Dynamic Time Series.

Using Administration Services Console, the application designer sets substitution variables and their corresponding values for a specific application. Essbase stores these variables and their values on the Essbase Server. You can take advantage of the predefined substitution variables in Spreadsheet Add-in during Dynamic Time Series reporting.

For example, say the application designer sets a substitution variable on the server for the current month. The variable is called CurMnth and has a value of August. If you use the substitution variable in the worksheet, a retrieval returns values for August, because August is set as the current month on the server. If, at a later date, the application designer changes the value of the CurMnth substitution variable to October, a retrieval returns data for October.

The Sample Basic database that you are using for this tutorial does not contain predefined substitution variables. If the application designer had set a substitution variable in the database that you are using, you could enter a substitution variable directly into a worksheet.

For example, you could open a blank worksheet and enter member names (see Figure 115).

Figure 115 Entering a Substitution Variable in a Worksheet

	Α	В	С	D	E
1		Product	Measures	Market	Scenario
2	&CurMnth				
3					
4					

Notice the substitution variable (CurMnth) in cell A2. When you enter a substitution variable directly into a cell, you must precede it with an ampersand (&).

In this example, a retrieval produces the results shown in Figure 116.

Figure 116 Result of Retrieval on a Substitution Variable

	Α	В	С	D	E	F
1		Product	Measures	Market	Scenario	
2	Aug	9545		<u> </u>		
3						
4						

Essbase queries the server for the value of the substitution variable CurMnth, which is August. Data is returned only for August.

Note:

If you save a worksheet containing a substitution variable as a template, make sure that you save the worksheet before you retrieve data. For example, if you save the worksheet shown in Figure 116 as a template, each time you retrieve the template, August rather than the substitution variable CurMnth is displayed.

Using Free-Form Reporting to Retrieve Data

So far, you have been shown how to retrieve Essbase data into a worksheet through ad hoc retrieval, Query Designer queries, and Member Selection operations. In addition to these retrieval methods, Essbase supports free-form reporting.

Free-form reporting enables you to tell Essbase specifically what you want to retrieve by typing data into the worksheet. This free-form of reporting is especially useful when you are familiar with the dimensions and members in the database outline.

Essbase provides two different retrieval modes for free-form reporting:

- Advanced Interpretation
- Free-Form

In both retrieval modes, enter member names directly into the worksheet. These sections describe the similarities and differences between the two modes.

Using Advanced Interpretation Mode

Essbase Server server contains an advanced spreadsheet interpretation engine that scans a worksheet and interprets its content when fulfilling retrieval requests. When you construct a report by entering names directly into a worksheet in Advanced Interpretation retrieval mode, Essbase interprets the member names and creates a default view that is based on the location of the labels.

Keep in mind these guidelines when you are working in Advanced Interpretation mode:

- Precede all member names that consist of numbers with a single quotation mark. For example, for Product dimension member 100, enter '100 in the worksheet.
- If you define a report that does not contain all the database dimensions, you may need to enter a dummy value, such as 0, in the first data cell. Essbase overwrites this value with the contents of the database cell upon retrieval. Be sure to use a numeric value as the dummy value.
- To construct a free-form report in Advanced Interpretation retrieval mode:
- 1 Select **File**, then **New** or click to open a new worksheet.
- Select Essbase, then Options, and select Mode.
- In Retrieval, select Advanced Interpretation (the default setting) and click OK.
- Enter member names and data as shown in Figure 117.

Note:

If a member name consists of a number, such as 100, you must precede the member name with a single quotation mark (for example, '100). This rule also applies to member names with spaces between words.

Figure 117 (Creating a	New Fre	e-Form	Report
--------------	------------	---------	--------	--------

	Α	В	С	D	E	F
1	Sales	East	Budget			
2						
3		Qtr1	Qtr2			
4	100					
5	200					
6	300					
7	400					

Select Essbase, then Retrieve or double-click a data cell.

Essbase retrieves data for the members that you entered into the free-form report and implements the Use Aliases option that you set in "Setting Essbase Options" on page 95.

Figure 118 Retrieving Data into a Free-Form Report

	Α	В	С	D	E	F
1	Sales	East	Budget			
2						
3		Qtr1	Qtr2			
4	Colas	5870	6760			
5	Root Beer	5460	5650			
6	Cream Soda	3680	4030			
7	Fruit Soda	3880	4150			

Now define a free-form report that does not contain all the dimensions from the database. In Advanced Interpretation mode, you may need to enter a dummy data value, such as 0, into the first data cell to indicate to Essbase where the data starts in the worksheet. Be sure to use a numeric value as the dummy value.

For example:

- 6 Select Essbase, then FlashBack.
- 7 Delete cells A1, B1, and C1.
- 8 In cell B4, enter 0 to provide Essbase with a data cell reference point.

Figure 119 Defining a Free-Form Report Without All Dimensions

	Α	В	С	D	E	F
1						
2						
3		Qtr1	Qtr2			
4	100	0,				
5	200					
6	300					
7	100 200 300 400					

9 Select Essbase, then Retrieve.

Essbase adds the dimensions that were omitted from the free-form report to the worksheet and retrieves data.

Figure 120 Retrieval in a Free-Form Report Without All Dimensions

	Α	В	С	D	E	F
1						
2						
3		Measures	Market	Scenario		
4		Qtr1	Qtr2			
5	Colas	7048	7872			
6	Root Beer	6721	7030			
7	Cream Soda	5929	6769			
8	Fruit Soda	5005	5436			

10 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

Using Free-Form Mode

Similar to Advanced Interpretation mode, Free-Form mode enables you to enter member names into any location in a worksheet and then interprets the contents of the worksheet when fulfilling the retrieval request. In addition, with Free-Form mode, you can use Essbase report script commands to retrieve data into a worksheet.

Report script commands are most useful for defining member references that can bring back the most current member information dynamically. For example, if you need to create a report that shows every product, including the products added since the last retrieval, standard retrieval mode reflects changes only when you drill down on the product.

If you use the report script command <IDESCENDANTS, Essbase retrieves all descendants of a specified member, as well as the specified member. For more information on the syntax of report script commands and on guidelines for developing reports, see the Oracle Essbase Technical Reference and the Oracle Essbase Database Administrator's Guide.

Keep in mind these guidelines when working in Free-Form retrieval mode:

- You must precede all member names that consist of numbers with a single quotation mark. For example, for the Product dimension member 100, you must enter '100 in the worksheet.
- You cannot cancel a retrieve in Free-Form mode.
- You cannot apply Essbase styles in Free-Form mode.
- Essbase removes blank rows and columns on any retrieval action.
- Excel does not support Report Writer formatting commands, such as {BRACKETS}, {DECIMAL}, and {EUROPEAN} in Free-Form mode. They are incompatible with the Excel formatting features.
- When you are in Free-Form mode, an Auto Sort Rows option is available in the Display page of the Essbase Options dialog box. If you select this feature, Essbase retrieves data in symmetric rows. The rows are sorted according to the order specified in the database outline.
- Not all Formula Preservation and Modes options (Essbase Options dialog box, Mode page) are available in Free-Form mode.
- To use Dynamic Time Series in Free-Form mode, do not put the Dynamic Time Series member and the latest time period (for example, "Q-T-D" ("Feb")) in the same cell. You need to enter the Dynamic Time Series member, "Q-T-D" in one cell, and the latest time period within parentheses, ("Feb"), in a separate, adjacent cell.
- To construct a free-form report in Free-Form retrieval mode:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Select **Essbase**, then **Options**, and select **Mode**.
- In Retrieval, select Free Form.
- 4 Select Display.

- 5 In Cells, select Auto Sort Rows, and click OK.
- 6 Enter the member names into the worksheet as shown in Figure 121.

Figure 121 Typing Member Names In a Free-Form Report

	Α	В	С	D	E	F
		COGS				
2	Jan East Budget Actual					
3	East					
4	Budget					
5	Actual					
6		<u> </u>				
7						

7 Select Essbase, then Retrieve.

Essbase retrieves data for the members and creates a default view according to the location of the labels. Note that in Figure 122, three members were pivoted from row groups to column groups.

Figure 122 Result of Retrieving in Free-Form Retrieval Mode

	Α	В	С	D	E	F
1		Product	COGS	Jan	East	
2	Budget Actual	2590	ļ .			
3	Actual	3007				
4						
5						

8 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

- To create a report by entering member names and a report script command:
- 1 Selecting **File**, then **New** or click to open a new worksheet.
- 2 Enter the member names into the blank worksheet as shown in Figure 123.

Figure 123 Typing Member Names in a Free-Form Report

	Α	В	С	D	Е
1		Actual	Sales	East	
2		Jan	Feb	<u>Mar</u>	
3					

3 In cell A3, enter <IDESCENDANTS Product and press Enter.

Figure 124 Typing a Report Script Command in a Free-Form Report

	А	В	С	D
1		Actual	Sales	East
2		Jan	Feb	Mar
3	<descendants p="" product<=""></descendants>			
4				

4 Select Essbase, then Retrieve.

Essbase retrieves data into the worksheet for all descendants of Product and for the members that you entered in the worksheet. The result is shown in Figure 125.

Figure 125 Result of a Retrieve with a Report Script Command

	Α	В	С	D	Е
1		Actual	Sales	East	
2		Jan	Feb	Mar	
3	Cola	1812	1754	1805	
4	Diet Cola	200	206	214	
5	Caffeine Free Cola	93	101	107	
6	Colas	2105	2061	2126	
7	Old Fashioned	647	668	672	
8	Diet Root Beer	310	310	312	
9	Sasparilla	#Missing	#Missing	#Missing	
10	Birch Beer	896	988	923	
11	Root Beer	1853	1966	1907	
12	Dark Cream	999	1012	1026	

Note:

When Essbase completes the retrieval, the report script command is overwritten by the data it returns. You can use FlashBack to restore the previous view in Free-Form mode.

5 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

Using Attributes in Free-Form Reporting

Essbase enables you to retrieve data selectively by specifying attributes that are associated with a base dimension. For example, in the Sample Basic database, the Product base dimension is associated with attributes such as packaging and size. You can enter an attribute name into the worksheet to retrieve data that is associated with that attribute.

- To use attributes in a free-form report:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Enter member names as shown in the Figure 126.

Figure 126 Using Attributes in Free-Form Reports

	Α	В	С	D	Е
1	Caffeinated	Bottle	Profit	Qtr1	East
2					

Caffeinated is an attribute dimension associated with the Product base dimension. Bottle is a level 0 member of the Pkg_Type attribute dimension. The Pkg_Type dimension is associated with the Product base dimension. A level 0 member is the lowest level member in a dimension.

3 Click any empty cell and select Essbase, then Retrieve or double-click an empty data cell.

Essbase retrieves information on profits for the first quarter of the year for all members of the Product base dimension that are associated with both the level 0 attribute members of the Caffeinated attribute dimension (Caffeinated_True and Caffeinated_False) and the level 0 member Bottle of the Pkg_Type attribute dimension. The results should look like Figure 127.

Figure 127 Result of Using Attributes in Free-Form Reports



You can drill down to data on the level 0 attribute members of the Caffeinated attribute dimension. The results should look like Figure 128.

Figure 128 Drilling Down on Attributes in Free-Form Reports

	Α	В	С	D	Е	F
1			Bottle	Profit	Qtr1	East
2	Caffeinated_True	Scenario	142			
3	Caffeinated_False	Scenario	2462			
4						

5 To drill down further for data on profits for the first quarter for all members of the East base dimension, double-click cell E1. The results should look like Figure 129.

Figure 129 Result of Drilling Down on East

	Α	В	С	D	Е	F
1				Bottle	Profit	Scenario
2	New York	Caffeinated_True	Year	-2050		
3		Caffeinated_False	Year	6754		
4		Caffeinated	Year	4704		
5	Massachusetts	Caffeinated_True	Year	30		
6		Caffeinated_False	Year	1577		
7		Caffeinated	Year	1607		
8	Florida	Caffeinated_True	Year	1727		
9		Caffeinated_False	Year	934		
10		Caffeinated	Year	2661		
11	Connecticut	Caffeinated_True	Year	1134		
12		Caffeinated_False	Year	742		
13		Caffeinated	Year	1876		
14	New Hampshire	Caffeinated_True	Year	-84		
15		Caffeinated_False	Year	842		
16		Caffeinated	Year	758		
17	East	Caffeinated_True	Year	757		
18		Caffeinated_False	Year	10849		
19		Caffeinated	Year	11606		

Entering Generation and Level Names

In addition to entering database member names into a free-form report, you can enter generation or level names directly into a worksheet to retrieve specific members. The Essbase application designer defines generation and level names for database dimensions in the database outline. Two options enable you to determine which generation and level names are defined in the database:

- View generation and level names in the Essbase Member Selection dialog box or through Query Designer.
- Contact the Essbase application designer to see which generation and level names are defined in the database outline.
- To enter generation and level names directly into a free-form report:
- 1 Select **File**, then **New** or click to open a new worksheet.
- 2 Select **Essbase**, then **Options** and select **Mode**.
- In Retrieval, select Advanced Interpretation, and click OK.
- Enter member names as shown in Figure 130.

Figure 130 Entering Member Names in a Free-Form Report

	Α	В	С	D	E	F
1		Sales	Budget	West	Year	
2						
3						

5 Enter a generation name as shown in Figure 131.

Family is a generation name in the Product dimension. The name is already defined in the Sample Basic database.

Figure 131 Entering a Generation Name in a Free-Form Report

	Α	В	С	D	E	F
1		Sales	Budget	West	Year	
2	Familγ					
3						
4						

6 Select Essbase, then Retrieve.

Essbase retrieves data for the member and generation names that you entered. The Family generation name expands to its individual members. The result is shown in Figure 132.

Figure 132 Result of Free-Form Retrieval with Generation Name

	Α	В	С	D	E	F
1		Sales	Budget	West	Year	
2	Colas	34830				
3	Root Beer	31810				
4	Cream Soda	30480				
5	Fruit Soda	22730				
6	Diet Drinks	35690				
7						

Change Year to a level name (Lev0, Year) as shown in Figure 133.

Figure 133 Entering a Level Name in a Free-Form Report

	Α	В	С	D	E	F
1		Sales	Budget	West	Lev0,Year	
2	Colas	34830				
3	Root Beer	31810				
4	Cream Soda	30480				
5	Fruit Soda	22730				
6	Diet Drinks	35690				
7						

Note:

Do not insert a space between the comma after 0 and the word Year. Generation and level names that are entered directly into a worksheet must be precise.

8 Select Essbase, then Retrieve.

As shown in Figure 134, Essbase retrieves data for the level 0 members of the Year dimension, which are the individual months (Jan, Feb, Mar, and so forth).

Figure 134 Result of Free-Form Retrieval with Level Name

	Α	В	С	D	E	F
1			Sales	Budget	West	
2	Jan	Colas	2860			
3		Root Beer	2540			
4		Cream Soda	2220			
5		Fruit Soda	1840			
6		Diet Drinks	2810			
7	Feb	Colas	2820			
8		Root Beer	2560			
9		Cream Soda	2310			
10		Fruit Soda	1840			
11		Diet Drinks	2900			
12	Mar	Colas	2820			

9 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

Retrieving Data Using Visual Explorer

Oracle Essbase Visual Explorer provides Essbase users with powerful analytics in a highly graphical format. It enables users to unlock the information stored in multidimensional databases using a free-form canvas for exploring and analyzing data. The Visual Explorer user interface is shown in Figure 135.

⑥ Oracle

Essbase Visual Explorer - My Workbook File Edit View Format Data Analysis Table Bookmark Window Help Data whistler-Sample-Basic-test Columns ▼ E Region Find: ▼ (Gen2, Product Gen3,Product Rows Dimensions ■ Market West 2 Region Cola 11,129 4,593 3,576 3,479 - State ■ Population Colas Diet Cola -534 3,931 1,114 ■ Product Caffeine Fre.. 413 -510 2,080 Gen2.Product My Worksheet 1 Old Fashioned -2.540 1,656 2,116 5,969 🚙 Gen3, Product Diet Root Be.. 5,013 2,421 3,609 Caffeinated Columns ▼ (Gen2, Product M∃ Ounces Sasparilla 3,058 1,578 Pkg Type Birch Beer Rows 💷 Intro Date Dark Cream 3,233 5,354 2,552 1,056 ■ Scenario Vanilla Cream -918 1,769 1,660 .agGen2,Scenario 30K Diet Cream 312 3,608 5,879 Year Grape 2,649 4.800 4.395 🚜 Gen3, Year 1,388 4,254 4,209 Orange Marks Abo Measure Names 25K 2,307 -3,200 49 Strawberry Automatic Diet Cola 1,114 -534 1,197 3,931 Measures Diet Root Be.. 982 5,013 2,421 3,609 20K Diet Cream 312 3,608 1,294 5.879 Size: 년 15K # Opening Inventory Level of Detail: # Additions # Ending Inventory # Ratios 10K # Margin % Color: Region # Profit % # Profit per Ounce East # Measure Values West 5K South Central 0K Colas Root Beer Cream Fruit Soda Diet 1 row by 5 columns SUM of Profit: 134,348

Figure 135 Elements of the Visual Explorer User Interface

Visual Explorer is launched directly from the Essbase menu in Spreadsheet Add-in, using the Visualize & Explore command. Using the technique of dragging interface elements, Essbase users can quickly summarize and visualize data from an Essbase database. Visual Explorer then offers users the option to pass data back to the Excel worksheet from which it was launched, or to insert the data into a new Excel worksheet where additional analysis can be performed.

Note:

For detailed information on using Visual Explorer, see the online help that is accessed from the Help menu in Visual Explorer.

This example uses Visual Explorer to identify quickly the most profitable product sales by quarter in the Sample Basic database.

- To use Visual Explorer to identify the most profitable product sales by quarter:
- 1 Open a worksheet.
- 2 Select Essbase, then Visualize & Explore.

The Visual Explorer interface is displayed.

- 3 Optional: If you are not already logged in to the Sample Basic database, you can log in from Visual Explorer by completing these tasks:
 - From Visual Explorer, select Data, then Connect to Data.
 - In Connect to Data, select Essbase. b.
 - The Essbase System Login dialog box is displayed.
 - In Server, select the server to access, or enter the name of the server. c.
 - d. Enter your user name.
 - e. Enter your password.
 - f. Click **OK** to connect to the server.

When your server connection is complete, a list of available application and database pairs is displayed in the Application/Database list.

- Select the application and database pair and click OK. g.
- In Name Connection, click OK to save the Server-Application-Database name of this h. connection for future use.

You can rename the connection to a user-friendly name.

i. Click **Yes** at the prompt to save the connection name.

Note:

If you save the connection name, it is displayed on subsequent logins in the Connect to Data dialog box (see step 3.b).

You are now ready to use Visual Explorer.

- 4 Under Marks, select Bar.
- 5 Drag Year from the **Dimension** section of the **Data** window and drop it on the **Column** shelf.
- 6 Drag Sales from the Measures section of the Data window and drop it on the Column shelf, placing it to the right of Quarter.
- Drag Profit % from the **Measures** section of the **Data** window and drop it on the **Color** shelf.

At this point, you can see which quarter is the most profitable based on sales as indicated by the darkest color bar.

- 8 Drag Region from the **Dimension** section of the **Data** window and drop it on the **Row** shelf.
- 9 Drag Category from the Dimension section of the Data window and drop it on the Row shelf, placing it to the right of Region.

When you drag a generation to a shelf, all generations that are ancestors of the selected generation are automatically included in this placement. However, if you press and hold down the Control (Ctrl) key while dragging a generation to a shelf, only that specific generation is included in the placement.

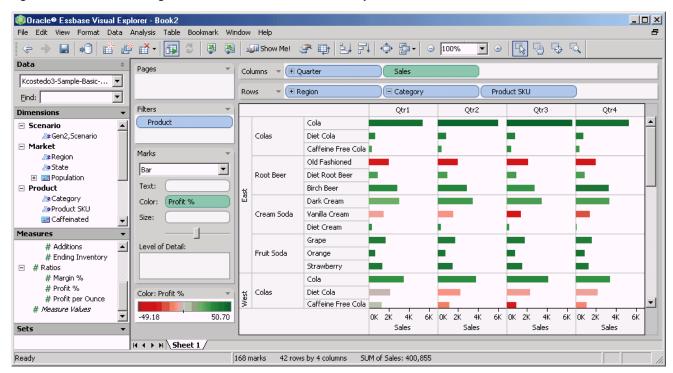
To ignore the Diet Drinks alternate rollup in this analysis, right-click Category in the Row shelf and select Filter.

Diet Drinks is an alternate rollup that contains shared members. You can deselect it from the query so that members that are already shown are not redisplayed.

- 11 In Filter, clear the Diet Drinks member and click OK.
- 12 Expand Category on the Row shelf.
- 13 Review the visual worksheet.

As shown by the dark green bars in Figure 136, Colas in the East is the most consistently profitable product based on sales.

Figure 136 Bar Chart Showing Product 100-10 East as Most Profitable by Sales



You are now ready to pass the data from the visual worksheet into an Excel worksheet in Spreadsheet Add-in.

14 **Optional:** In Visual Explorer you can further analyze the data in the Sample Basic database by completing any of these tasks:

Note:

These tasks are optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

• Drag State from the **Database Schema** and drop it on the **Page** shelf.

The view is recalculated to view the data for individual states. The Current Page shows that we are viewing data for New York. For example, hover over the bar for Cola in New York in the East region during Qtr1, and the pop-up shows that the Sales total for New York in that quarter is \$1,998.00. Click the right direction arrow or use the drop-down to view data from another state.

- Drag Gen3, Population from the Database Schema and drop it on the Groups shelf.
 - The view is recalculated so that each column is now broken into market size based on population, separated by lines. Hover over individual sections and view Sales data by market size.
- 15 In Oracle Essbase Visual Explorer, select File, then Export, then Cross-tab to Excel, to transfer data from the visual worksheet to worksheet in Excel.

Note:

Alternatively, you can select File, then Update Excel (New Worksheet), to transfer the data from the visual worksheet to a new worksheet in Excel.

Using Linked Reporting Objects

A linked reporting object is an external file, cell note, or World Wide Web resource that you link to a cell in an Essbase database. The file, note, or Web resource (indicated by a URL, or Uniform Resource Locator) can then be retrieved by the Spreadsheet Add-in users who have access to the database.

Note:

If your organization has implemented the Essbase Partitioning option, you can also access linked partitions from cells in Spreadsheet Add-in. For more information on linked partitions, see "Access Methods for Linked Partitions" on page 158.

In this topic, these procedures are discussed:

- "Linking a File to a Data Cell" on page 145
- "Linking a Cell Note to a Data Cell" on page 148
- "Linking a URL to a Data Cell" on page 149
- "Accessing and Editing Linked Reporting Objects" on page 151

For additional information on using linked reporting objects, see Oracle Essbase Spreadsheet Add-in Online Help.

Linking a File to a Data Cell

Using the linked reporting objects feature, you can link an external file to a data cell in Spreadsheet Add-in. Essbase stores the file on the Essbase Server. Users who have access to the database can then retrieve the file and view the data contained in the cell.

This example uses the Asymm.xls sample worksheet with data from the Sample Basic database. It links a sample file, Budasmp.txt, to a cell containing the Budget figure. Budasmp.txt details the budgetary assumptions for the current year.

- To link a file to a data cell:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Asymm.xls.
- Make sure that you are connected to the Sample Basic database.

If you are not connected, see "Connecting to a Database" on page 93.

Select cell D5 (see Figure 137).

Note:

You can link objects only to data cells, not to cells containing member names.

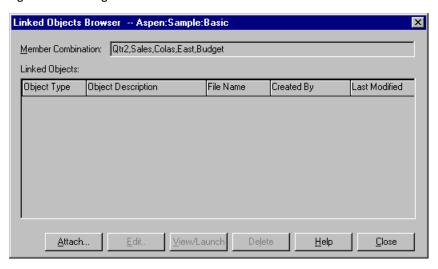
	Α	В	С	D	Е	F	G
1	Sales						
2							
3			Actual	Budget	Budget	Budget	
4			Qtr1	Qtr2	Qtr3	Qtr4	
5	East	Colas	6292	6760	7300	5570	
6		Root Beer	5726	5650	5600	5780	
7		Fruit Soda	3735	4150	4350	3850	
8							
9	West	Root Beer	8278	7970	8320	7820	
10		Cream Soda	8043	7720	8300	7570	

Figure 137 Selecting a Data Cell for Linking an External File

5 Select Essbase, then Linked Objects.

The Linked Objects Browser dialog box is displayed (see Figure 138).

Figure 138 Linking a File

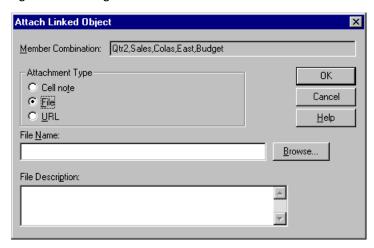


6 In Linked Objects Browser, click Attach.

The Attach Linked Object dialog box is displayed.

7 Under Attachment Type, select File (see Figure 139).

Figure 139 Linking a File to a Data Cell

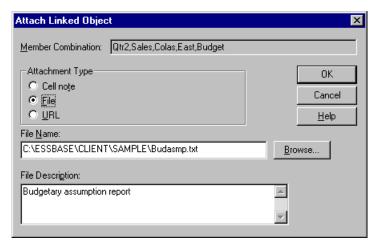


8 Click Browse next to File Name.

The Browse Files dialog box is displayed.

- 9 From the HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, select Budasmp.txt.
- 10 Click Open.
- 11 Under File Description, enter a brief description for the file as indicated in Figure 140.

Figure 140 Selecting and Describing a File to Link



Note:

Entering text in the File Description text box is optional.

12 Click **OK** to close the dialog box and link the file to the cell.

Essbase copies the file to the server and establishes a link to the current data cell.

13 Click Close to close Linked Objects Browser.

Do not close the Asymm.xls file. You use the file in the next tutorial task.

To recognize cells that have linked reporting objects attached to them, you may want to apply a visual cue, or style, to the cells.

- To apply styles:
- 1 Select **Essbase**, then **Options**, and select **Style**.
- 2 In Data Cells, select Linked Objects.
- 3 Click Format.
- 4 From Font style, select Italic.
- 5 From Color, select Purplem and click OK.
- 6 Select Display.
- 7 In Cells, select Use Styles, and click OK.
- 8 Select **Essbase**, then **Retrieve** to refresh the worksheet and apply the styles.

Cell D5 (the cell to which you just attached the linked file) is now displayed in purple, italic font (see Figure 141). Essbase refreshes the worksheet with the other options set in the Essbase Options dialog box.

Figure 141 Result of Applying a Style to a Linked Reporting Object Cell

	A	В	C	D	E	F
1	Sales					
2						
3			Actual	Budget	Budget	Budget
4			Qtr1	Qtr2	Qtr3	Qtr4
5	East	Colas	6292	6760	7300	5570
6		Root Beer	5726	5650	5600	5780
7		Fruit Soda	3735	4150	4350	3850
8						
9	West	Root Beer	8278	7970	8320	7820
10		Cream Soda	8043	7720	8300	7570

Leave the file (Asymm.xls) open for the next tutorial task.

Linking a Cell Note to a Data Cell

In addition to linking external files to a data cell in Spreadsheet Add-in, you can also link individual cell notes that contain information on particular data cells. Cell notes can consist of no more than 599 characters. If you need to link information to a data cell that is longer than 599 characters, you must create and save an external file and then link the file to the data cell.

- To link a cell note to a data cell:
- 1 In the Asymm.xls file, select cell C5.

Note:

You can link objects only to data cells, not to cells containing member names.

2 Select Essbase, then Linked Objects.

The Linked Objects Browser dialog box is displayed.

3 In Linked Objects Browser, click Attach.

The Attach Linked Object dialog box is displayed.

- 4 Under Attachment Type, select Cell Note (see Figure 142).
- 5 In **Cell Note**, enter the note shown in Figure 142.

Figure 142 Creating a Cell Note to Link



- 6 Click **OK** to close the dialog box and link the cell note.
 - Essbase copies the note to the server and establishes a link to the current data cell.
- 7 Click Close to close Linked Objects Browser.
- 8 Select Essbase, then Retrieve to refresh the worksheet and apply the style that you defined for linked objects.

Now Essbase displays two data cells (C5 and D5) in purple, italic font to represent a cell that contains a linked reporting object. The result is shown in Figure 143.

Figure 143 Result of Creating a Linked Cell Note

Ĥ	A	В	С	D	E	F	G
1	Sales						
2							
3			Actual	Budget	Budget	Budget	
4			Qtr1	Qtr2	Qtr3	Qtr4	
5	East	Colas	6292	6760	7300	5570	
6		Root Beer	5726	5650	5600	5780	
7		Fruit Soda	3735	4150	4350	3850	
8							
9	West	Root Beer	8278	7970	8320	7820	
10		Cream Soda	8043	7720	8300	7570	

Leave the Asymm.xls file open for the next tutorial task.

Linking a URL to a Data Cell

A URL is an address string that identifies resources on the World Wide Web, such as documents, images, and downloadable files. With the linked reporting objects feature, you can link a URL to a data cell so that users who have access to the database can link directly to the specified URL. When you access the cell from Spreadsheet Add-in, your default Web browser opens and displays the specified URL.

Note:

For more information on URL syntax, see Oracle Essbase Spreadsheet Add-in Online Help.

- ➤ If you have a Web browser and Internet access, follow these steps to link a data cell to the Oracle Web site:
- 1 In the Asymm.xls file, select cell E5 (see Figure 144).

Note:

You can link objects only to data cells, not to cells containing member names.

Figure 144 Selecting a Data Cell for Linking to a URL

A	A	В	C	D	E	F	G
1	Sales						
2							
3			Actual	Budget	Budget	Budget	
4			Qtr1	Qtr2	Qtr3	Qtr4	
5	East	Colas	6292	6760	7300	5570	
6		Root Beer	5726	5650	5600	5780	
7		Fruit Soda	3735	4150	4350	3850	
8							
9	West	Root Beer	8278	7970	8320	7820	
10		Cream Soda	8043	7720	8300	7570	

2 Select Essbase, then Linked Objects.

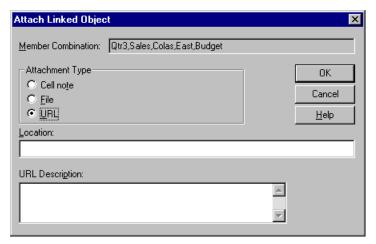
The Linked Objects Browser dialog box is displayed.

3 In Linked Objects Browser, click Attach.

The Attach Linked Object dialog box is displayed.

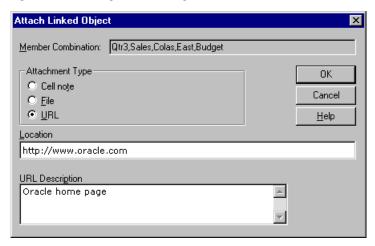
4 Under Attachment Type, select URL (see Figure 145).

Figure 145 Linking a URL to a Data Cell



Enter a URL in Location, and a brief description in URL Description (see Figure 146).

Figure 146 Entering and Describing a URL to Link



Entering text in the URL Description text box is optional. The text field for entering the URL location is limited to 512 characters. The text field for entering the URL description is limited to 80 characters.

6 Click **OK** to close the dialog box and link the URL to the cell.

Essbase copies the URL string to the server and establishes a link to the current data cell.

Note:

The syntax for the URL is not checked at the time of creation; Essbase checks the syntax when the user accesses the URL from the worksheet. The default Web browser checks for the existence, or validity, of the URL.

- 7 Click Close to close Linked Objects Browser.
- 8 Select Essbase, then Retrieve to refresh the worksheet and apply the style that you defined for linked objects.

Leave the Asymm.xls file open for the next tutorial task.

these topics explain how to access linked reporting objects from Spreadsheet Add-in.

Accessing and Editing Linked Reporting Objects

Two options are available for accessing and editing a linked reporting object that is attached to a data cell:

- Select the cell (as identified by the style applied to it) and select Essbase, then Linked Objects.
- Enable double-clicking for linked object browsing.

Note:

If you enable double-clicking for linked object browsing, double-clicking behavior changes for retrieving data and performing drill actions. For more information, see Oracle Essbase Spreadsheet Add-in Online Help.

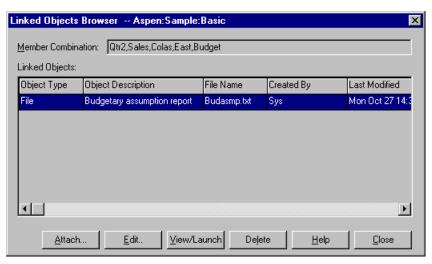
For this tutorial, you access the linked reporting objects that you created in the previous sections by using the Essbase menu item instead of the double-clicking action.

Accessing a Linked File

Sometimes you want to check an external file that is linked to a data cell.

- To access the external file that you previously linked to a data cell:
- 1 In the Asymm.xls file, select cell D5.
- 2 Select Essbase, then Linked Objects.
- 3 In Linked Objects Browser, select the Budasmp.txt file (see Figure 147).

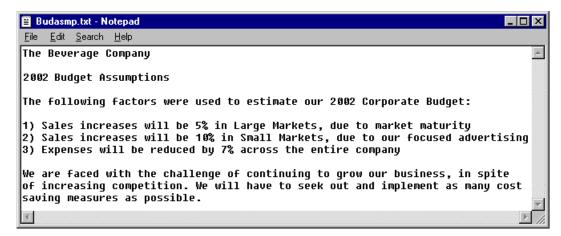
Figure 147 Accessing a Linked External File



Click View/Launch to view the linked file.

The Budasmp. txt file is opened from the source application (see Figure 148).

Figure 148 Viewing the Contents of a Linked External File



Note:

You can edit the contents of a file in the source application. After the edits are made and the file is saved, you can re-attach the edited file by clicking the Edit button in the Linked Objects Browser dialog box. Essbase displays the Re-attach Linked Object dialog box, which you can use to reattach, or relink, the edited file to the data cell.

Close the Budasmp.txt file and click Close to close Linked Objects Browser.

Leave the Asymm.xls file open for the next task.

Accessing a Linked Cell Note

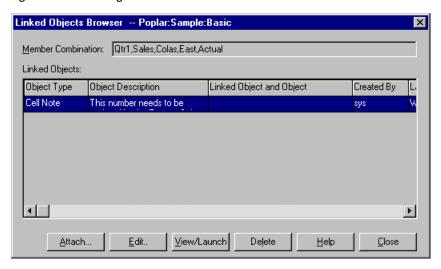
Sometimes you have to edit a cell note that was previously created.

- To access and edit the cell note that you previously created:
- 1 In the Asymm.xls file, select cell C5.
- 2 Select Essbase, then Linked Objects.

The Linked Objects Browser dialog box displays the cell note that is linked to the selected data cell.

3 In Linked Objects Browser, select the cell note (see Figure 149).

Figure 149 Accessing a Linked Cell Note



Click Edit to edit the contents of the cell note.

The Edit Cell Note dialog box is displayed with the selected cell note (see Figure 150).

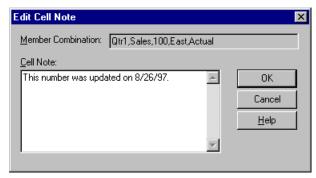
Figure 150 Editing the Contents of a Linked Cell Note



If you simply want to view the contents of the cell note, click the View/Launch button instead of the Edit button in the Linked Objects Browser dialog box.

5 Edit the contents of the cell note as indicated in Figure 151.

Result of Editing Cell Note Contents Figure 151



Click **OK** to close **Edit Cell Note** and save the edits you made to the note.

Essbase saves the edits to the cell note on the server.

7 Click Close to close Linked Objects Browser.

Leave the file (Asymm.xls) open for the next tutorial task.

Accessing a Linked URL

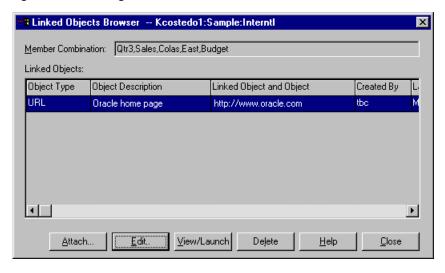
If you followed the steps in "Linking a URL to a Data Cell" on page 149, you can access and edit the URL that you created.

- To access the URL:
- 1 In the Asymm.xls file, select cell E5.
- 2 Select Essbase, then Linked Objects.

The Linked Objects Browser dialog box displays the URL that is linked to the selected data cell.

3 In Linked Objects Browser, select the URL (see Figure 152).

Figure 152 Accessing a Linked URL



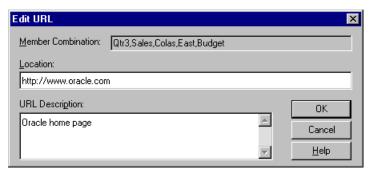
4 Click View/Launch to view the linked URL.

Essbase checks the syntax of the URL. If there are syntax errors, Essbase displays an error message. If the URL syntax is correct, the default Web browser launches and connects to the specified site. In this case, the syntax for the URL is correct, so the default Web browser launches and connects to the Oracle Web site.

- Close the Web browser.
- To edit the URL:
- 1 In Linked Objects Browser, select the URL.
- 2 Click Edit.

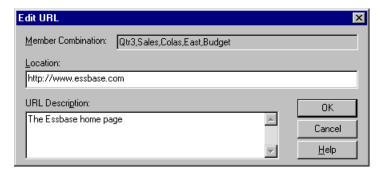
The Edit URL dialog box is displayed with the selected URL listed in the Location text box (see Figure 153).

Figure 153 Preparing to Edit the Contents of a Linked URL



3 Edit the URL location and description as shown in Figure 154.

Figure 154 Editing the Contents of a Linked URL



4 Click OK to close Edit URLand save the edits that you made.

Essbase saves the edits to the URL on the server.

5 Click View/Launch to view the new URL.

The Web browser launches and connects to the new URL.

- 6 Close the Web browser.
- 7 Click Close to close Linked Objects Browser.
- 8 Close the Asymm.xls file without saving it.

Connecting to Multiple Databases (Optional)

Essbase supports simultaneous access to multiple databases. The databases can be in different applications and can be stored on different servers. In the spreadsheet application, you can open multiple worksheets, each of which can be connected to a different database. An individual worksheet can access only one database at a time. Use the Connect command from the Essbase menu to switch the connection between databases.

Note:

Depending on the status of production applications at your site, you may not have access to additional applications or databases. Contact the Essbase system administrator if you need access to other applications.

For this tutorial, you do not need to connect to another database.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To access multiple databases:
- 1 Select Essbase, then Connect, to open Essbase System Login.
- 2 In Server, select a server to access, or enter the name of the server.
- Enter your **user name**.
- Enter your password.
- 5 Click **OK** to connect to the server.

When the server connection is complete, a list of available application and database pairs is displayed in the Application/Database list.

6 Select an application and database pair and click OK.

If the application is not already running, Essbase automatically starts it. There may be a brief pause as the application loads; the time required to start an application depends on size and number of databases contained within the application and the sizes of their indexes.

7 Open a worksheet and repeat the steps to connect to additional databases.

You can open one database at a time per worksheet.

For information on connecting to multiple databases from Query Designer, see "Connecting to Multiple Databases from Query Designer" on page 80.

Ways to View Active Database Connections

If you frequently connect to multiple databases, you may need to check the active database for each worksheet. You can view the database connection status in two ways:

- The Style page of the Essbase Options dialog box contains a Connection Information text box. This box displays connection information for the active worksheet.
- The Essbase Disconnect dialog box lists all active worksheets and their connection information. This dialog box also enables you to disconnect one or more worksheets from their respective databases.

Access Methods for Linked Partitions

Linked partitions are part of the Essbase Partitioning product. They provide the ability to link Essbase databases that contain different dimensions without losing access to all dimensions of both databases. If your organization implemented the Partitioning product, you can take advantage of its capabilities. The Oracle Essbase Database Administrator's Guide describes how to design and implement a linked partition. The Essbase application designer usually sets up partitioning.

Note:

The Partitioning product also enables the Essbase application designer to set up transparent or remote partitions. For more information on partitioning, see the Oracle Essbase Database Administrator's Guide.

You can set visual cues, or styles, for cells tagged as linked objects. These cells are access points to the linked partition within the linked database. Two options are available for accessing a linked partition from a data cell in Spreadsheet Add-in:

- Select the cell and select Essbase, then Linked Objects.
- Enable double-clicking for linked object browsing.

If you enable double-clicking for linked object browsing, double-clicking behavior changes for retrieving data and performing drill actions. For more information on these changes, see Oracle Essbase Spreadsheet Add-in Online Help.

When you select Linked Objects from a linked partition cell, Essbase completes these actions:

- Essbase displays the Linked Objects Browser dialog box, which contains a list of possible partitions which you can access. From this dialog box, select the partition to connect to.
 - The Linked Objects Browser dialog box may also contain a list of linked reporting objects, such as cell notes and external files. For more information on linked objects, see "Using Linked Reporting Objects" on page 144.
- After you select a partition, Essbase creates a new worksheet that contains corresponding members and dimensions for the cell in the linked partition.

Note:

Essbase does not preserve formulas across partitions.

Essbase retrieves data values from the linked partition.

You can now perform operations such as drill down and drill up to get more information on the worksheet.

Note:

The Sample Basic database that you are using for this tutorial does not contain a linked partition. However, the instructions for accessing a linked partition are shown as an optional task in the light-colored box below.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

- To access a linked partition in Spreadsheet Add-in if the Essbase application designer set up a linked partition:
- 1 Locate a linked object cell, as indicated by the style applied to the cell.
- 2 Select one method to access Linked Objects Browser:
 - Select Essbase, then Linked Objects.
 - In Essbase Options, select Enable Linked Object Browsing to enable double-clicking to view linked objects.
- 3 Select the partition to connect to and click View/Launch.

Essbase creates a worksheet that contains the dimensions and members for the cell in the linked partition.

You need the proper privileges to access a linked partition. If your user account and password match the account information for the linked partition, Essbase establishes a connection with the linked partition. Otherwise, Essbase displays the Essbase System Login dialog box for you to enter the user account and password.

Updating Data on Essbase Server

Data values are changed frequently in applications that involve planning, budgeting, and forecasting. After you retrieve data into the worksheet, you can use Spreadsheet Add-in to change values, enter formulas, and format data. Essbase is also designed to permit multiple-user, concurrent database access and update.

Depending on your security privileges, you may be able to modify all data values or a certain subset of values. To recognize cells to which you have read/write access, apply a visual cue, or style, to the cells. For more information on applying styles, see "Applying Styles to Data Cells (Optional)" on page 60.

To update data from a worksheet, you must lock the database area that contains the values that you want to change. Locking prohibits other users from changing the data that you want to update. Other users can retrieve locked data but cannot lock or change the data. You have exclusive update rights to that area.

Note:

You cannot update attribute-related data on the server because attribute data is always calculated dynamically and, hence, is not saved.

You can lock data values in three ways:

The Retrieve & Lock command retrieves data into the worksheet while locking the corresponding data area on the server. When you perform a subsequent retrieval, Essbase automatically unlocks the previous data values.

Note:

The Retrieve & Lock command is not supported with Dynamic Time Series members.

- The Lock command locks information that you have already retrieved. When you perform a subsequent retrieval, Essbase automatically unlocks the previous data values.
- The Update Mode option in the Mode page of the Essbase Options dialog box automatically locks the corresponding database area for each retrieval.

To update the server with data values from the worksheet, use the Send command on the Essbase menu. After updating the server, the Send command automatically unlocks data (unless you are in Update Mode). You must clear Update Mode to stop the automatic locking of blocks.

You can unlock data blocks in two ways:

- The Unlock command unlocks all blocks that you have locked.
- The server automatically unlocks data blocks that have been locked for the maximum time allowed as defined by the Essbase system administrator. Automatic unlock ensures that blocks are not locked for extended periods of time.

The P&1.x1s file is installed as part of the default Essbase installation. This file illustrates how to update data on the server.

- To view P&1.xls:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open P&l.xls.
- 3 Select Essbase, then Retrieve & Lock.

Essbase retrieves data and locks the appropriate area of the database (see Figure 155).

Figure 155 P&L Worksheet After Retrieve & Lock

	Α	В	С	D	E	F	G	Н
1	Market:	Central				The Beve	erage Comp	any
2	Product:	200				Planning D	ept.	
3	Scenario:	Budget						
4								
5		Jan		Mar		Qtr1	% Sales	
6	Misc	#Missing	#Missing	#Missing		0	0.00	
7	Payroll	210	210	210		630	0.07	
8	Marketing	300	310	320		930	11.05	
9	Total Expenses	510	520	530		1560	18.53	
10								
11	COGS	1170	1180	1200		3550	42.16	
12	Sales	2740	2820	2860		8420	100.00	
13	Margin	1570	1640	1660		4870	57.84	
14	Profit	1060	1120	1130		3310	39.31	
15								
16	Ratio Analysis							
17	Markup	57.3%	58.2%	58.0%		57.8%		
18	Marketing %	10.9%	11.0%	11.2%		11.0%		

4 Change the value for Sales in Jan (cell B12) to 4000 and press Enter.

Essbase changes the affected data values.

5 Select **Essbase**, then **Send** to update the server with the new values.

Essbase updates the server and unlocks the data blocks.

Figure 156 P&L Worksheet After Sending New Values to the Server

	Α	В	С	D	E	F	G	Н
1	Market:	Central				The Beve	erage Comp	any
2	Product:	200				Planning D	ept.	
3	Scenario:	Budget						
4		_						
5		Jan	Feb	Mar		Qtr1	% Sales	
6	Misc	5	10	10		25	0.30	
7	Payroll	200	200	200		600	0.07	
8	Marketing	350	350	350		1050	12.47	
9	Total Expenses	555	560	560		1675	19.89	
10								
11	COGS	1170	1180	1200		3550	42.16	
12	Sales	2740	2820	2860		8420	100.00	
13	Margin	1570	1640	1660		4870	57.84	
14	Profit	1015	1080	1100		3195	37.95	
15								
16	Ratio Analysis							
17	Markup	57.3%	58.2%	58.0%		57.8%		
18	Marketing %	12.8%	12.4%	12.2%		12.5%		

6 Close P&1.xls without saving it.

Essbase Essbase provides a spreadsheet sheet update logging feature that tracks and logs all data updates sent from Spreadsheet Add-in to the server. The Essbase system administrator enables this feature for extra protection against data loss. For more information on spreadsheet update logging, see the Oracle Essbase Database Administrator's Guide or contact the Essbase system administrator.

Database Calculation

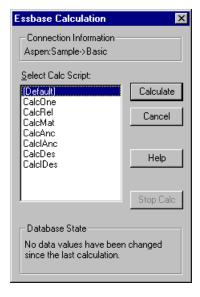
Sending updated data to the server does not automatically recalculate the database. If you have the appropriate security privileges to perform database calculations, you can calculate the database from Spreadsheet Add-in with the Calculation command. For this tutorial, you will not actually calculate the Sample Basic database. For more information on Essbase calculations, see the Oracle Essbase Database Administrator's Guide.

Caution!

Do *not* perform any calculation operations for this tutorial.

When you select the Essbase Calculation command, the Essbase Calculation dialog box is displayed (see Figure 157).

Figure 157 Essbase Calculation Dialog Box



The Essbase Calculation dialog box contains these items:

- The Connection Information text box displays the active database connection.
- The Select Calc Script list box contains the server-based calculation scripts to which you have access.
- The Database State status box indicates the current calculation state of the database. these states are possible:
 - Calculating Indicates that a calculation is currently running on the database.
 - Data values have been modified since the last calculation

Indicates that data values have changed since the database was last calculated. The last calculation may have been an entire calculation of the database or a calculation of any subset of the database.

No data values have been changed since the last calculation

Indicates that the data in the database has not changed since it was last calculated. The last calculation may have been an entire calculation of the database or a calculation of any subset of the database.

Caution!

If the last calculation was performed on a subset of the data, the entire database may not have been calculated since values last changed. To ensure that the results of calculations are up-to-date, you may want to run a calculation of the entire database. For more information, contact the Essbase system administrator.

Creating Multiple Worksheets from Data

One frequent requirement of budgeting and planning applications is to send worksheets to various functional areas of an organization. After the worksheets have been distributed, the recipients can review the contents, make modifications, and send updates back to the distributor.

Using the Essbase Cascade feature, you can create multiple worksheet files based on a single database view. You can specify at what level of detail you want to replicate the worksheets to tailor the information to each recipient's needs.

The Sample Basic database contains data for beverage products sold in different states across the U.S. For example, assume that you want all product managers to review and respond to a proposed budget and to return their changes to the finance department. You must create a worksheet for each combination of budget and P&L data to distribute to the product managers for their respective products.

- To create this set of worksheets:
- 1 Select File, then Open.
- 2 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open P&l.xls.

This file contains the data that you need to replicate for each worksheet.

Select Essbase, then Retrieve.

Notice that the retrieval uses the Use Aliases option, which is already set for this file in the Essbase Options dialog box. In this example, product 200 changes to Root Beer, which is its preassigned

- 4 Select Central (in cell B1) and Root Beer (in cell B2) as the members to be represented in the resulting worksheets.
- 5 Select Essbase, then Cascade.

The Essbase Cascade Options dialog box is displayed.

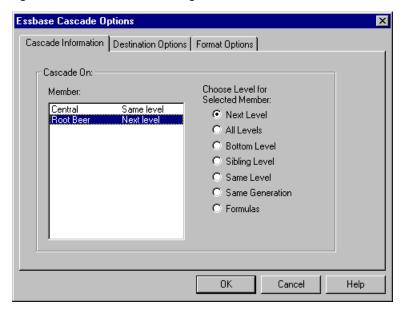
6 Select Cascade Information.

The Cascade Information page contains the list of members that you selected and the options for specifying the level at which the selected members are retrieved into the cascaded worksheets.

For more information, see *Oracle Essbase Spreadsheet Add-in Online Help*.

- 7 In Member, select Central.
- 8 In Choose Level for Selected Member, select Same level.
- In Member, select Root Beer, and select Next level (the default setting) (see Figure 158).

Figure 158 Cascade Information Page



The replicated, or cascaded, spreadsheet reports now provide data for members at the *same* level as Central (East, West, and South) and for members at the level below Root Beer (Old Fashioned, Diet Root Beer, Sarsaparilla, and Birch Beer).

- 10 Select **Destination Options**.
- 11 In Destination Directory, enter C: /temp as the name of the directory in which to store the cascaded worksheets.

Click Browse to select a destination directory from the Browse dialog box.

12 In Destination Types, select Separate Workbooks (the default setting), to create separate spreadsheet files for each cascaded worksheet.

You can also choose to create only one workbook with separate worksheets for each cascaded report, or you can choose to send the cascaded reports to the printer.

13 In File Information, select Overwrite Existing Files (the default setting).

When this option is selected, Essbase overwrites any cascaded worksheets with the same file name.

You can also select the Open Created Files option to open each cascaded file in the spreadsheet as it is created.

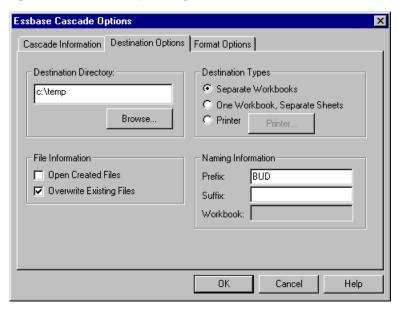
Caution!

Depending on the number of replicated worksheets that you want to create, the Cascade command can create more worksheets than can be stored in the memory of your computer. Therefore, the Open Created Files option should not be used when you are replicating large numbers of worksheets.

14 In Naming Information , for Prefix, enter BUD.

The completed Destination Options page should match Figure 112.

Figure 159 Destination Options Page



When you assign a prefix or suffix in the Naming Information group box, the worksheet files that are generated as a result of executing the Cascade command are named with the prefix or suffix that you specify. The default is to generate worksheet names that are numbered 1 through *n*, where *n* is the total number of worksheets created.

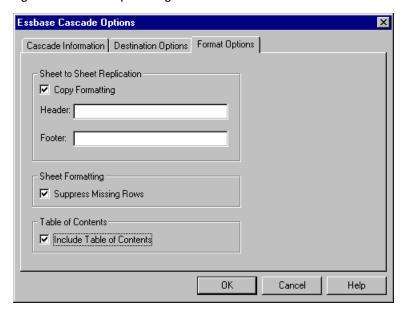
The syntax for the file names is *PrefixnSuffix*.xls for Excel. If you do not specify a prefix or suffix, Essbase creates the worksheets 1.xls, 2.xls, and so on. If you are creating a single workbook, the same naming convention is used for the worksheet names within the workbook.

Caution!

Do not specify a prefix and suffix combination that leaves no characters free for Essbase to create unique file names. If file names are duplicated, Essbase overwrites the duplicate file name with the last cascaded worksheet.

15 Click Format Options (see Figure 165).

Figure 160 Format Options Page



16 Select Copy Formatting to copy the formatting of the source worksheet into each cascaded worksheet.

Copy formatting copies only the visual cues set using Essbase and the cell formatting that you set using the worksheet. It does not copy formulas, column formatting, worksheet formatting, or graphs.

- 17 In Header and Footer, specify a header or footer name to be used for all of the cascaded worksheets.
- 18 In Sheet Formatting, select Suppress Missing Rows so that rows containing only #Missing values are not replicated.
- 19 In Table of Contents, select Include Table of Contents.

This creates a Table of Contents text file that lists all replicated worksheets, their creation dates, and their member content. By default, Essbase names the Table of Contents file with the extension .1st.

20 Click **OK** to create the cascaded worksheets.

Essbase rapidly creates the cascaded worksheets. As each worksheet is created, it is automatically saved, closed, and logged in the Table of Contents. Each individual file is saved in the directory that you specified, named Bud1.xls through Bud10.xls. When the Cascade is completed, Essbase returns you to the original worksheet view (that is, the source file).

21 Using a text editing application, open the Table of Contents file from the destination directory that you specified earlier. This file is named BUDO. LIST and contains a list of all cascaded worksheets (see Figure 161).

Figure 161 Table of Contents File for Cascaded Worksheets

```
/**********************
   File name: c:\temp\BUD0.lst */
   Creation date: Mon Nov 10 11:48:34 2003 */
/***********************
/* East, Old Fashioned */
                 /* East, Diet Root Beer
c:\temp\BUD7.xls
                /* West, Sasparilla */
c:\temp\BUD8.xls
c:\temp\BUD9.xls
                 /* South, Old Fashioned
                 /* South, Diet Root Beer */
c:\temp\BUD10.xls /* South, Sasparilla */
```

22 Select File, then Close to close the worksheet.

You do not need to save the worksheet.

- To create multiple worksheet files based on the attributes of a product:
- 1 Enter the attribute names in the top row of the worksheet.
- Select the attribute names and select **Essbase**, then **Cascade**.

Proceed as previously described.

Working with Currency Conversions

Organizations with offices in different countries generally do business in the currency of the host country (known as the *local* currency). Such organizations must convert data entered in local currencies to a common currency for consolidation and analysis.

The Oracle Essbase Database Administrator's Guide describes how to design and implement a Currency Conversion application.

These topics provide a brief tutorial for working with currency conversions:

- "Retrieving Currency Conversion Data" on page 167
- "Connecting to the Sample Currency Databases" on page 168
- "Performing Ad Hoc Currency Reporting" on page 170

Retrieving Currency Conversion Data

This topic focuses on basic currency conversion concepts, including the Currency Report command.

A currency conversion application consists of two databases:

A main database that contains data in local and converted values

A currency rates database that contains exchange rates

Apply exchange rates from the currency rates database to local values from the main database to derive converted values. The Essbase Server product installation includes a sample currency conversion application (installation options) that consists of two sample databases: a main database called Interntl and a currency rates database called Xchgrate.

The Sample Interntl database consists of five dimensions: Year, Measures, Product, Market, and Scenario. All but the Market and Scenario dimensions are identical to the Sample Basic database.

The Market dimension includes Toronto, Vancouver, Montreal, Germany, Sweden, Switzerland, and the UK. The Scenario dimension handles different currency types (such as Actual and Budget) in both local and converted currencies. In this database, all local currencies are converted to the common currency of U.S. dollars.

The Sample Xchgrate database, which is a subset of the main database, contains four dimensions:

- The CurTime dimension accommodates different exchange rates by month.
- The CurName dimension contains names of currencies from their respective markets.
- The CurCategory dimension contains the names of the various currency categories that may be applied to the categories of Measures. For example, one rate is applied to Profit and Loss items and another rate is applied to Balance Sheet items.
- The CurType dimension enables a currency database to contain rates for different scenarios, such as Actual and Budget.

Connecting to the Sample Currency Databases

To complete these exercises, the Sample Interntl and Sample Xchgrate databases must be installed on the server. Contact the Essbase system administrator if these application and database pairs are unavailable.

- To retrieve data from the Sample Interntl database:
- 1 Select Essbase, then Connect.
- 2 Select the Sample Interntl database and click **OK** to complete the connection.

The Essbase installation also includes sample spreadsheet files that illustrate currency conversion concepts.

3 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Local.xls.

The worksheet contains actual (Act) and budget (Bud) data entered in local currencies for New York and Germany (see Figure 162).

Figure 162 Retrieving Local Data

	Α	В	С	D	E
1		Jan	100-10		
2					
3		Act		Bud	
4		New York	Germany	New York	Germany
5	Sales	678	210	640	190
6	COGS	271	84	260	80
7	Margin	#Missing	#Missing	#Missing	#Missing
8					
9	Marketing	94	27	80	20
10	Payroll	51	31	40	20
11	Misc	0	0	#Missing	#Missing
12	Total Expenses	#Missing	#Missing	#Missing	#Missing
13					
14	Margin %	#Missing	#Missing	#Missing	#Missing
15	Profit %	#Missing	#Missing	#Missing	#Missing

- 4 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Convert.xls.
- 5 Select Essbase, then Retrieve.

The worksheet contains values for Actual and Budget as they are displayed after conversion.

Figure 163 Retrieving Converted Data Values

	Α	В	С	D	Е	F	G
1				Jan	Cola		
2		Actual		Actual @ Bu	d XChg	Budget	
3		New York	Germany	New York	Germany	New York	Germany
4	Sales	678	130.2	678	210	640	133
5	COGS	271	52	271	84	260	56
6	Margin	407	78	407	126	380	77
7	Marketing	94	17	94	27	80	14
8	Payroll	51	19	51	31	40	14
9	Misc	0	0	0	0	0	0
10	Total Expenses	145	36	145	58	120	28
11	Margin %	60	60	60	60	59	58
12	Profit %	39	32	39	32	41	37

The worksheet contains data that is converted to U.S. dollars. Values for New York remain the same, but German values are converted. Essbase converts the values by using the exchange rates from the Sample Xchgrate database.

- 6 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Rates.xls.
- 7 Connect to the Sample Xchgrate database.
- 8 Select Essbase, then Retrieve.

The portion of the result is shown in Figure 164.

Figure 164 Retrieving Exchange Rates from a Currency Database

	Α	В	С	D	Е	F	G	Н	1	J
1				Jan	Feb	Mar	Apr	Мау	Jun	Jul
2	USD	Actixchg	P&L	1	1	1	1	1	1	1
3			B/S	1	1	1	1	1	1	1
4		Bud xchg	P&L	1	1	1	1	1	1	1
5			B/S	1	1	1	1	1	1	1
6	CAD	Actichg	P&L	1.53	1.53	1.53	1.53	1.53	1.53	1.53
7			B/S	1.55	1.55	1.55	1.55	1.55	1.55	1.55
8		Bud xchg	P&L	1.5	1.5	1.5	1.5	1.5	1.5	1.5
9			B/S	1.5	1.5	1.5	1.5	1.5	1.5	1.5
10	EUR	Actixchg	P&L	1.01	1.01	1.01	1.01	1.01	1.01	1.01
11			B/S	1.03	1.03	1.03	1.03	1.03	1.03	1.03
12		Bud xchg	P&L	1.05	1.05	1.05	1.05	1.05	1.05	1.05
13			B/S	1.05	1.05	1.05	1.05	1.05	1.05	1.05

The worksheet contains all possible combinations of exchange rate scenarios, categories, and types by month. Because this example converts to U.S. dollars (USD), the sample file contains a base rate of 1 for USD. Therefore, the local and converted figures remain the same for New York. Essbase converts the figures for Germany, however, by using data values in the currency database, as follows:

- Essbase divides data values from Actual by values in the Act xchg currency type.
- Essbase divides data values from Actual @ Bud xchg by values in the Bud xchg currency type.
- Essbase divides data values from Budget by values in the Bud xchg currency type.
- Essbase bases all figures in Convert.xls on the CurCategory of P&L and the CurTime of

Note:

A conversion can be defined as a multiplication or division operation on exchange rates. The definition is determined by the application designer.

Performing Ad Hoc Currency Reporting

A main database, such as Sample Interntl, usually contains values that are converted and stored in the database. You may want to perform currency conversions dynamically, as well. Essbase provides this capability with the Currency Report command. This command enables you to interactively change the currency rates and types applied to the retrieval.

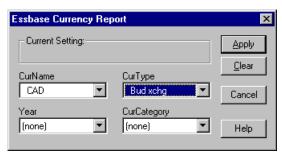
- To perform an ad hoc conversion on data in Convert.xls:
- 1 From HYPERION_HOME/products/Essbase/EssbaseClient/client/sample, open Convert.xls.

The worksheet contains data that is already converted to U.S. dollars.

- 2 Select **Essbase**, then **Connect** and connect to the Sample Interntl database.
- Select Essbase, then Retrieve.
- 4 Select Essbase, then Currency Report.

The Essbase Currency Report dialog box is displayed (see Figure 165).

Figure 165 Essbase Currency Report Dialog Box



The Essbase Currency Report dialog box enables you to modify the exchange rates applied to the retrieval interactively, with options for currency settings, names, categories, and years. For more information, see Oracle Essbase Spreadsheet Add-in Online Help.

Note:

The dimension names CurName, CurType, and CurCategory are default names for a currency database. The application designer can use different names for any of these dimensions.

5 Select the currency settings that you want to apply.

For example, select CAD from the CurName drop-down list and Bud xchg from the CurType drop-down list.

- 6 Click Apply to apply the settings.
- Select Essbase, then Retrieve to refresh the data in the worksheet with the results of the ad hoc conversion.

In the example shown in Figure 166, Essbase converted the New York and Germany figures to Canadian dollars (CAD).

Figure 166 Performing an Ad Hoc Currency Conversion

	Α	В	С	D	Е	F	G
1				Jan	Cola		
2		Actual		Actual @ Bu	d XChg	Budget	
3		New York	Germany	New York	Germany	New York	Germany
4	Sales	1017	186	1017	300	960	190
5	COGS	407	74	407	120	390	80
6	Margin	611	112	611	180	570	110
7	Marketing	141	24	141	39	120	20
8	Payroll	77	27	77	44	60	20
9	Misc	0	0	0	0	0	0
10	Total Expenses	218	51	218	83	180	40
11	Margin %	60	60	60	60	59	58
12	Profit %	39	32	39	32	41	37

8 Click Clear in Essbase Currency Report to make currency reporting unavailable and return to standard retrieval mode.

Performing a currency report retrieval does not change values in the database. The process performs a temporary conversion as part of the retrieval. Converted data values may not always balance, because the ad hoc conversion is performed on values that were previously calculated or previously consolidated in another currency.

If values must balance and be verified, they must be converted to the target currency in the database, calculated, and retrieved. This procedure differs from the ad hoc currency conversion retrievals described in this section.

Drill-Through Tutorial

In This Chapter

About the Drill-Through Tutorial	173
Understanding Drill-Through	173
About the Drill-Through Wizard	175
Before You Start	176
Accessing Drill-Through Reports from the Spreadsheet	183
Selecting Drill-Through Reports to View or Customize	189
Selecting and Ordering Columns	194
Ordering Data	196
Filtering Data	198
Disconnecting from Essbase	204

About the Drill-Through Tutorial

Drill-through is a tool provided with Integration Services, a suite of tools and data integration services that serves as a bridge between relational data sources and Essbase Server. Integration Services works with Essbase and Spreadsheet Add-in. Essbase.

Drill-through enables you to view and customize spreadsheet reports that display data retrieved from relational databases.

This tutorial provides a brief overview of drill-through and guides you through tasks for using drill-through. It includes a description of the sample database, spreadsheet file, and drill-through report used in the tutorial.

Understanding Drill-Through

Despite the benefits of the multidimensional database for storing analytic data, some data elements required for analysis are better suited to the relational structure of a relational database.

The scope of data residing in an Essbase database is typically at a summary level, where data is summarized and calculated for planning and analysis. Detailed, transactional data usually is not examined during the planning and analysis of a business.

For example, you might use Essbase to analyze retail sales for the first quarter in the Eastern region. Detailed data, such as a list of customers who purchased a particular product in a

particular size, is unnecessary during the normal course of analyzing business performance. As you analyze sales results, however, you may want to view more detailed information. Drillthrough enables you to drill from the summarized and calculated data stored in Essbase Server of your organization into detailed data stored in a relational database.

The database administrator predefines a data mapping for you from Essbase to the relational source. For example, the Essbase members East, West, South, and Central might map to a field called Region in a relational database. As you navigate through data in the spreadsheet, Essbase can detect how the current data maps to the relational source. For example, suppose you select cell G4 in Figure 167.

С D А В G Profit Product 2 Actual Scenario Budget 3 Jan. Eeh Mar Otr1 Jan Feb Mar Otr1 Jan Feb 4 512 601 543 1,656 512 543 1,656 New York 601 620 710 5 Massachusetts 519 498 515 1,532 519 498 515 1,532 570 550 6 Florida 336 361 373 1,070 336 361 373 1,070 400 450 7 Connecticut 321 309 290 920 321 309 290 920 380 390 8 New Hampshire 44 74 84 202 44 74 84 202 110 130 2,230 9 1,732 1,843 5,380 1,732 1,843 5,380 2,080 East 1,805 1,805 2,394 7,137 7,137 2,980 2,990 10 West 2,339 2,404 2,339 2,394 2,404 997 997 1,440 11 South 1,046 1,034 3,077 1,046 1,034 3,077 1,330 3,063 12 Central 2,956 3,090 9,109 2,956 3,063 3,090 9,109 3,550 3,690 13 Market 8,024 8,346 8,333 24,703 8,024 8,346 8,333 24,703 9,940 10,350 14 ▶ N Market drill Market Detail Measures drill1 / Measures drill2 / M

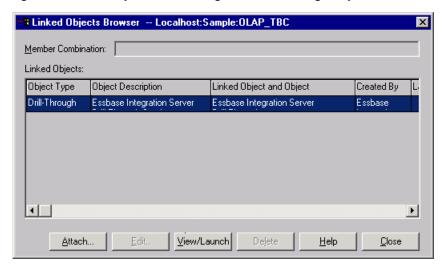
Figure 167 Example of a Drill-Through Sheet

The dimensional attributes of the cell are as follows: Actual, Profit, New York, Feb, and Product. The combination of one or more of these attributes becomes the basis for a drill-through query that returns data from the relational source.

From Spreadsheet Add-in, you can access a predefined drill-through report that is based on the dimension or member intersections of Essbase data cells in the sheet. Using Integration Services Console, an administrator at your organization sets up drill-through reports for you to access; that is, each drill-through report is already defined in terms of what to retrieve from the relational source.

In Spreadsheet Add-in, you can access drill-through reports from the Linked Objects Browser dialog box (see Figure 168). When you select a drill-through cell in the sheet and select the Essbase Linked Objects command, the Linked Objects Browser dialog box displays a drillthrough entry that you can select and launch.

Figure 168 Linked Objects Browser Dialog Box with Drill-Through Entry



You can define a style for cells tagged as "drill-through" to identify which cells in the spreadsheet are associated with drill-through reports. For more information on defining styles for drillthrough cells, see "Accessing Drill-Through Reports from the Spreadsheet" on page 183.

About the Drill-Through Wizard

An administrator at your organization can predefine drill-through reports for you to view or to customize. The person who develops a report determines whether the report can be customized by drill-through users. If a report can be customized, you use the Drill-Through Wizard to customize it.

The Drill-Through Wizard is a graphical user interface that steps you through these customization tasks:

- Selecting columns to retrieve from the relational data source Decide which columns from the predefined report you need to see.
- Selecting the display order for columns Change the default display order of columns across the sheet.
- Selecting a sort order for data Select an ascending or descending sort order for a particular column; for example, sort a list of store managers in alphabetical order.
- Selecting data filters Define a filter on a column so that only data meeting certain criteria is retrieved.

Before You Start

Before starting the tutorial, you should have a working familiarity with the Essbase product through the use of the Spreadsheet Add-in interface. Review in this guide Chapter 2, "Basic Tutorial" and Chapter 3, "Advanced Tutorial" as prerequisite reading.

A sample Essbase database is the basis for the examples in this tutorial. The database administrator creates this sample Essbase database using the sample metaoutline supplied withIntegration Services (see Oracle Essbase Integration Services Online Help). A sample spreadsheet file, Essdt.xls, contains a worksheet with the appropriate member intersections for the sample drill-through report. For more information on the sample database, spreadsheet file, and drill-through report, see "About the Samples Used in This Tutorial" on page 182.

If you plan to follow the examples in a live working session, check with the person at your organization who installs the Integration Services product family for information on the sample database that you need for drill-through, and to which instance of Essbase Server you should connect.

Note:

The Essdt.x1s file also contains sample results of the drill-through reports when you run them without customizing the reports. The results are provided in separate sheets in the workbook so that you can see the sample report results without working through the tutorial. For more information about the sample reports, see "About the Samples Used in This Tutorial" on page 182.

Before starting the tutorial, make sure you meet these requirements:

- You must install these components on your client computer:
 - A 32-bit version of Excel
 - Spreadsheet Add-in
 - The Drill-through module

The drill-through module is installed automatically when you install Spreadsheet Addin. This module is transparent until you invoke it from the Linked Objects Browser. For more information on installation, contact the Essbase system administrator.

- The Essbase system administrator must install the Essbase Server.
- You must have access to Integration Services and to an instance of Essbase Server. For more information, contact the Essbase system administrator or the person who administers Integration Services at your organization.
- You must have access to the underlying relational database (typically using a user name and password that are different from those that you use for Essbase). To obtain the appropriate access, contact the Essbase system administrator or the person who administers Integration Services at your organization.
- Make sure that the Essdt.xls sample drill-through report spreadsheet is available in HYPERION_HOME/products/Essbase/EssbaseClient/client/sample.

- To use the Essdt.xls sample drill-through report spreadsheet, you need to log in to a computer with both Essbase Server and Integration Services installed. You must perform a member and data load and calculate the data for the sample Essbase database that you will access from Spreadsheet Add-in.
- The sample database that contains the drill-through report must be set up and running. The sample drill-through reports used in this tutorial (called "Market Detail," "Measures Detail," and "Product Detail") are available with the sample spreadsheet files. Contact the person at your organization who installs Integration Services to find out the name of the sample database to use for drill-through.

For more information on Essbase installations, see the *Essbase Integration Services Installation Guide*. For more information on Essbase installations, see the *Oracle Hyperion Enterprise Performance Management System Installation and Configuration Guide*.

- ➤ Before starting the drill-through tutorial, perform these tasks:
- 1 Open the sample Essdt.xls file.

The sample spreadsheet file contains the appropriate member intersections from the sample database for the drill-through report. This file is provided as part of the default Essbase installation.

2 Set a style for data cells that are associated with drill-through reports.

Keep in mind these guidelines during the tutorial:

- Each tutorial task builds upon the previous one, and tasks must be followed in succession.
- Optional tasks are included for your reference only and should *not* be performed as part of the tutorial. For more information on these tasks, see the Drill-through Help section of .Oracle Essbase Spreadsheet Add-in Online Help
- The examples used in this tutorial are based on the sample database that is included with the Integration Services installation. Contact the person at your organization who installs Integration Services for information about accessing the sample database.
- Set the options in the Essbase Options dialog box as described in "Setting Essbase Options" on page 177. If the option settings are different, the illustrations presented in this chapter may not match the spreadsheet view.
- If you make a mistake during the tutorial, select Essbase, then FlashBack, to return to the previous spreadsheet view.

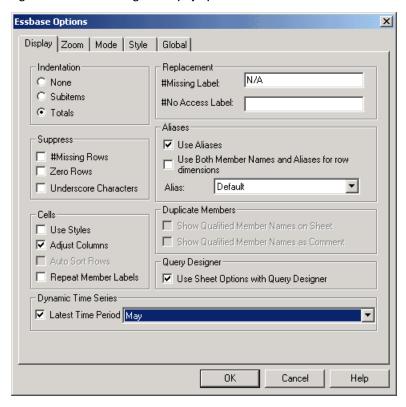
Setting Essbase Options

Before you begin the tutorial, make sure that the spreadsheet options are set to the initial settings, as illustrated in Figure 169 through Figure 173. If your option settings are different, the illustrations presented in this chapter may not match the spreadsheet view.

For information about Essbase options, see Oracle Essbase Spreadsheet Add-in Online Help.

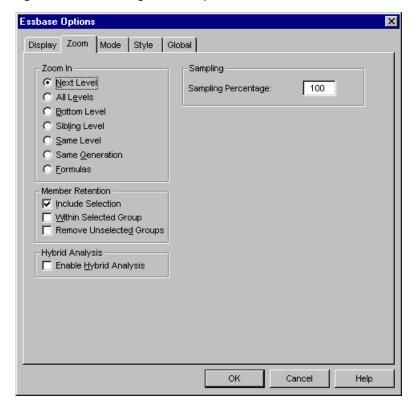
- ➤ To set Essbase options:
- 1 From the Excel menu, select **Essbase**, then **Options**.
- 2 In Essbase Options, select Display.
- Select options to match those shown in Figure 169.

Figure 169 **Initial Settings for Display Options**



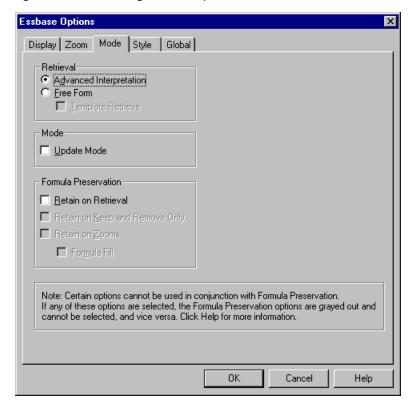
- Select Zoom.
- Select options to match those shown in Figure 170.

Figure 170 Initial Settings for Zoom Options



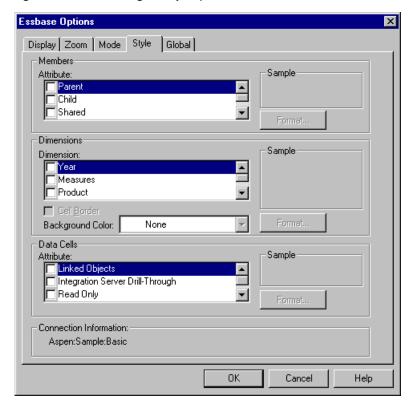
- 6 Select Mode.
- 7 Select options to match those shown in Figure 171.

Figure 171 Initial Settings for Mode Options



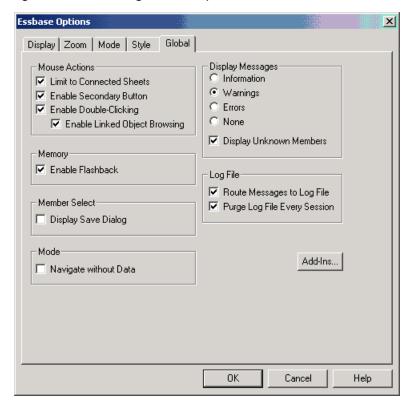
- Select Style.
- Select options to match those shown in Figure 172.

Figure 172 Initial Settings for Style Options



- 10 Select Global.
- 11 Select options to match those shown in Figure 173.

Figure 173 Initial Settings for Global Options

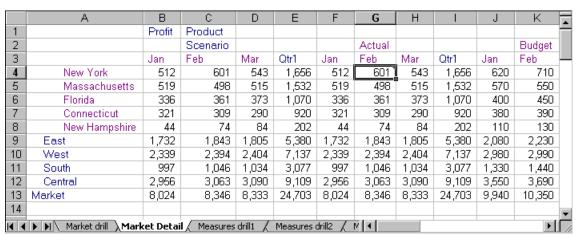


12 Click **OK** to save the settings for this session and close **Essbase Options** .

About the Samples Used in This Tutorial

The sample database used for this tutorial contains these dimensions: Scenario, Product, Market, Measures, and Year. The sample spreadsheet file shown in Figure 174 provides a particular view from the sample database.

Figure 174 **View from Sample Database**



For this spreadsheet view, detail-level data exists in a relational data source—data that is not available from Essbase. For example, the relational source contains columns of data for market detail, measures detail, and product detail. This steps in this tutorial walk you through a sample drill-through session, where you will drill down from the data shown in Figure 174 into the detail data from the relational source.

This tutorial uses two sample drill-through reports, "Measures Detail" and "Market Detail." As with all drill-through reports, these reports have been predefined to retrieve specific columns from the relational source. You will use the Drill-Through Wizard to customize the report, "Measures Detail."

Note:

The sample file also contains two more sample reports called "Product Detail" and "Two reports" that you can use for drill-through practice. In "Two reports," select the drill-through cell B3 to select from two drill-through reports, "Product Detail" and Market Detail, select cell B6 to view "Market Detail," and cell G3 to view "Product Detail."

In addition to the sample drill-through reports, the Essdt .xls file provides sample results of the drill-through reports. This list describes the drill-through results that are provided:

- The Market Detail drill worksheet displays the results for Market Detail when you run a drill-through report on cell G4 without customizing the report.
- The Measures Detail drill1 worksheet displays the results for Measures Detail when you run a drill-through report on cell C4 without customizing the report.
- The Measures Detail drill2 worksheet displays the results for Measures Detail when you run a drill-through report on cell G6 without customizing the report.
- The Product Detail drill worksheet displays the results for Product Detail when you run a drill-through report on cell D5.

Accessing Drill-Through Reports from the Spreadsheet

Using Spreadsheet Add-in, you can access detail-level drill-through reports that are based on the member intersections of Essbase data cells in the sheet.

Each drill-through report has been predefined by an administrator at your organization; that is, each drill-through report is already set up to retrieve specific columns from the relational source and to sort and filter data in these columns in specific ways. Using the Drill-Through Wizard, you can customize these predefined drill-through reports to retrieve only the data that you want, displayed in a specific way.

To access the predefined drill-through report, double-click a drill-through cell in the spreadsheet (or select a range of cells and select Essbase > Linked Objects). You can set styles for cells tagged as "drill-through" to help identify which cells in the sheet are associated with drill-through reports.

When you double-click a drill-through cell, Essbase displays the Linked Objects Browser dialog box, which displays a drill-through report entry. A single cell can be associated with multiple reports. The Linked Objects Browser dialog box also displays entries for linked partitions and other linked object types, such as cell notes, URLs, and application files.

After you view or customize the drill-through report, Integration Services retrieves data from the relational source and displays the results in a new spreadsheet.

- ➤ Before starting the drill-through tutorial, perform these tasks:
- 1 Open the sample Essdt.xls file.

The sample spreadsheet file contains the appropriate member intersections from the sample database for the drill-through report. This file is provided as part of the default Essbase installation.

- Set a style for data cells that are associated with drill-through reports.
- To access the sample file and sample database:
- 1 Start the spreadsheet application.
- 2 Select File, then Open and open Essdt.xls from HYPERION_HOME/products/Essbase/ EssbaseClient/client/sample.

The sample file should look like Figure 175. In this example, the Market Detail sheet is selected. The default sheet that is selected when you first open the file may be different.

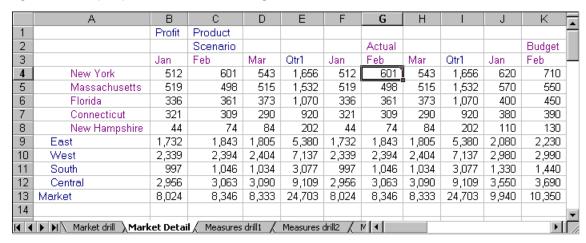


Figure 175 Sample Spreadsheet File for Drill-Through

The sample file shows data for specific members of an Essbase database. This sample file contains these three predefined drill-through reports, indicated by the tabs of the spreadsheet: "Market Detail," "Measures Detail," and "Product Detail." Using drill-through, you can access these reports and customize them so that Integration Services retrieves only the data that you need and displays it in the desired format.

- 3 Select the Market Detail worksheet.
- Select **Essbase**, then **Connect** and connect to the appropriate sample database.

Note:

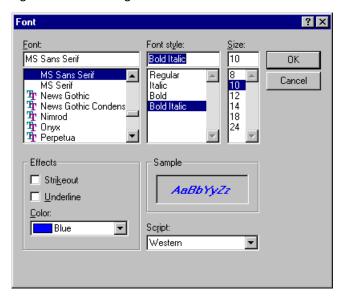
A specific sample database for drill-through is not automatically provided with Integration Services or Essbase. Contact the person at your organization who installs Integration Services to set up a database for you.

- 5 Select Essbase, then Options, and select Style.
- 6 In Data Cells, select Integration Server Drill-Through, and click Format.

The Font dialog box is displayed.

- 7 Select **Bold Italic** from **Font style**.
- 8 Select **Blue** from **Color**, and click **OK** to return to **Essbase Options**.

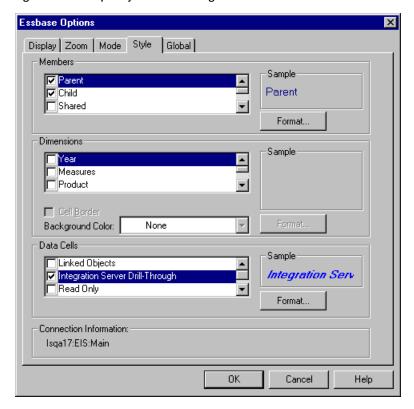
Figure 176 Font Dialog Box Selection



In the Essbase Options dialog box, an example of the selected style is displayed in the Sample box

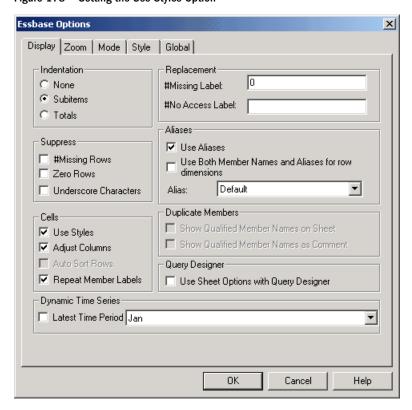
Figure 177 shows how the Essbase Options Style page looks with the style for drill-through cells defined.

Figure 177 Sample Style for Drill-Through Data Cells



In Essbase Options, select Display, and select Use Styles (see Figure 178).

Figure 178 Setting the Use Styles Option



10 Click **OK** to close **Essbase Options**.

11 Select Essbase, then Retrieve to display the new style in the spreadsheet.

In Figure 179, the sample drill-through report is associated with the data cells for Actual, Profit, and Product at the month and Eastern state levels, so that these data cells are displayed in blue, bold, and italic font.

Figure 179 Sample Spreadsheet File with Drill-Through Style Applied

	А	В	С	D	Е	F	G	Н		J
1		Profit	Product							
2			Scenario				Actual			
3		Jan	Feb	Mar	Qtr1	Jan	Feb	Mar	Qtr1	Jan 💻
4	New York	512	601	543	1,656	512	601	543	1,656	620
5	Massachusetts	519	498	515	1,532	519	498	515	1,532	570
6	Florida	336	361	373	1,070	336	361	373	1,070	400
7	Connecticut	321	309	290	920	321	309	290	920	380
8	New Hampshire	44	74	84	202	44	74	84	202	110
9	East	1,732	1,843	1,805	5,380	1,732	1,843	1,805	5,380	2,080
10	West	2,339	2,394	2,404	7,137	2,339	2,394	2,404	7,137	2,980
11	South	997	1,046	1,034	3,077	997	1,046	1,034	3,077	1,330
12	Central	2,956	3,063	3,090	9,109	2,956	3,063	3,090	9,109	3,550
13	Market	8,024	8,346	8,333	24,703	8,024	8,346	8,333	24,703	9,940
14										_
I	◀ ◀ ▶ ▶ \ Market drill \ Market Detail \ Measures drill1 \ Measures drill2 \ M ◀							P		

To access the sample drill-through report from Spreadsheet Add-in:

1 Select any drill-through cell; for example, cell G4.

You can also select a continuous range of cells from the same parent in one dimension to display all drill-through reports associated with the cells that you select. In this example, there is only one drill-through report attached to the range of cells.

In order for Integration Server to return a valid drill-through report when multiple cells are selected, all members selected for multi-cell drill-through must come from:

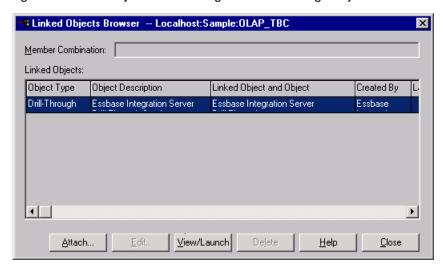
- The same physical table and column in the relational source database
- The same member level in the underlying OLAP metaoutline
- The same hierarchy

A multi-cell drill-through operation is valid only if all three criteria noted above are met. A message is displayed if the combination of cells you select is not valid for performing a multicell drill-through operation.

2 Access the Linked Objects Browser in either of these ways:

Select Essbase, then Linked Objects, to open the Linked Objects Browser (see Figure 180).

Figure 180 Linked Objects Browser Dialog Box with Drill-Through Entry Selected



In Essbase Options (Global page), select Enable Linked Object Browsing.

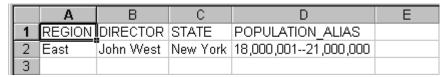
This option enables you to double-click a linked object cell to open the Linked Objects Browser dialog box.

This option works only with single-cell selection. If you select a range of cells, use the Essbase Linked Objects menu command.

- 3 Select the drill-through report entry and click View/Launch.
- 4 In Select Drill-Through Report, select Market detail, and click Execute.

The results of the drill-through report are displayed in a spreadsheet. The results of the Market Detail report shows that the regional director for the East region is John West and that the population for New York is between 18,000,001-21,000,000.

Figure 181 Results of Market Detail Drill-Through Report



If there is only one report available for the cells that you select in the spreadsheet and if that report is not designed to be customized, the drill-through process generates the report and immediately displays the results in the spreadsheet. The person at your organization who develops drill-through reports specifies whether you can customize a report and whether you need to log in to access the drill-through report and the relational data source.

5 Follow the steps in "Selecting Drill-Through Reports to View or Customize" on page 189 to select a report to customize.

Selecting Drill-Through Reports to View or Customize

After you launch the drill-through process from the Linked Objects Browser dialog box, Integration Services displays the Select Drill-Through Report dialog box under one or the other of these conditions:

- More than one drill-through report exists for the cell or cell range that you select in the spreadsheet.
- Only one report exists, but you have the option of customizing it using the Drill-Through Wizard.

The Select Drill-Through Report dialog box displays the list of drill-through reports available for the cells that you select in the spreadsheet. Depending on how a report is defined in Integration Services Console, you may have access only to view, not customize, the report.

The sample report used for this tutorial is the Measures Detail report. You will use the Drill-Through Wizard to customize this sample report.

- To customize the sample drill-through report:
- 1 In Essdt.xls, select the Measures Detail worksheet (see Figure 182).

G 1 2 New York 3 Cola Diet Cola Caffeine Free Cola Colas Cola 4 Sales Year 8.940 0 0 8.940 6.518 5 0 Cost of Goods Sold Year 3,573 | Ω 3,573 783 6 0 5,735 Margin Year 5.367 l 5,367 7 Total Expenses 1,869 0 0 1,869 Year 0 8 Profit Year 3,498 | 0 3,498 5,105

Figure 182 Initial Drill-Through Report for Measures Detail

2 Select Essbase, then Connect and connect to the appropriate sample database.

Note:

A specific sample database for drill-through is not automatically provided with Integration Services. Contact the person at your organization who installs Integration Services to set up a database for you.

- 3 Select Essbase, then Options, and select Style to define styles for this sheet.
- 4 In Data Cells, select Integration Server Drill-Through, and click Format.

The Font dialog box is displayed (see Figure 176 on page 185).

Note:

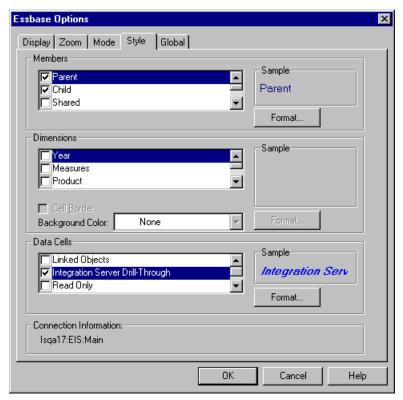
The style for drill-through cells may already be set as blue, bold, and italic because you set the style in the previous exercise. If this is the case, go to step 7.

5 Select **Bold Italic** from **Font style**.

6 Select Blue from Color, and click OK to return to Essbase Options.

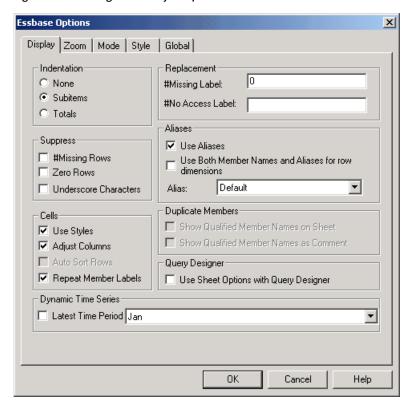
In the Essbase Options dialog box, an example of the selected style is displayed in the Sample box (see Figure 183).

Figure 183 Sample Style for Drill-Through Data Cells



In Essbase Options, select Display, and under Cells, select Use Styles (see Figure 184).

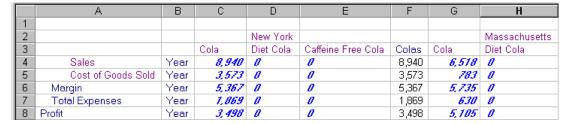
Figure 184 Setting the Use Styles Option



- 8 Click **OK** to close **Essbase Options**.
- 9 Select Essbase, then Retrieve to display the new style in the spreadsheet.

In this example, the sample drill-through report is associated with every member intersection at the state level in the East region, so that all data cells associated with an Eastern state and children of Cola are now displayed in blue, bold, and italic font.

Figure 185 Sample File with Drill-Through Style Applied



- To access the sample drill-through report from Spreadsheet Add-in:
- 1 Select any drill-through cell; for example, cell G6 (see Figure 186).

Figure 186 Selecting the Drill-Through Cell for the Measures Detail Report

	А	В	С	D	Е	F	G	Н
1								
2				New York				Massachusetts
3			Cola	Diet Cola	Caffeine Free Cola	Colas	Cola	Diet Cola
4	Sales	Year	8,940	0	0	8,940	6,518	0
5	Cost of Goods Sold	Year	3,573	0	0	3,573	783	0
6	Margin	Year	5,367	0	0	5,367	5,735	0
7	Total Expenses	Year	1,869	0	0	1,869	630	0
8	Profit	Year	3,498	0	0	3,498	5,105	0

If Integration Services is not running, the drill-through process does not launch properly. If drill-through is not launching properly, contact the Essbase system administrator.

If you are prompted with the Drill-Through Login dialog box to connect to Integration Server and the relational data source, enter the appropriate connection information. The person at your organization who administers Integration Services and develops drill-through reports should provide you with this information.

2 Access the Linked Objects Browser in either of these ways:

- Select Essbase, then Linked Objects, to open Linked Objects Browser (see Figure 180).
- In Essbase Options (Global page), select Enable Linked Object Browsing.

This process enables you to double-click a linked object cell to open the Linked Objects Browser dialog box.

This option works only with single-cell selection. If you select a range of cells, use the Essbase Linked Objects menu command.

Select the drill-through report entry and click View/Launch.

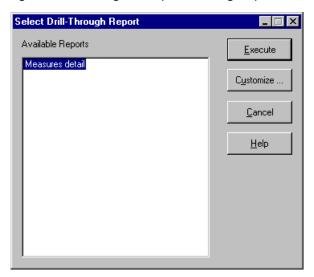
The Select Drill Through Report dialog box is displayed.

Note:

In the Select Drill Through Report dialog box, if the Customize button is available, you can customize the report. If more than one drill-through report is displayed, you can select from the different drill-through reports. In this tutorial, only one report, "Measures detail," is displayed and customizable.

In Available Reports, select Measures (see Figure 187).

Figure 187 Selecting the Sample Drill-Through Report



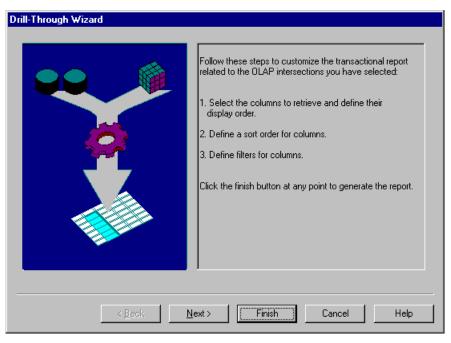
Click Customize.

Note:

The Customize button may or may not be available for any given report, depending on how the report was defined in Integration Services Console.

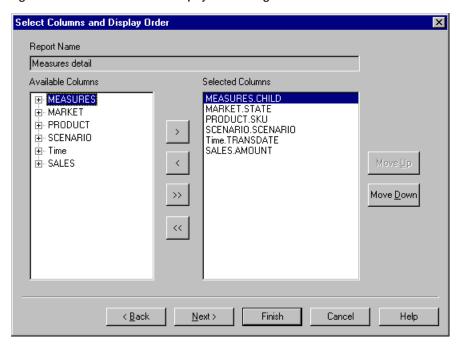
The first screen of the Drill-Through Wizard is displayed (see Figure 188).

Figure 188 Drill-Through Wizard Dialog Box, Introductory Screen



Click Next to display Select Columns and Display Order (see Figure 189).

Figure 189 Select Columns and Display Order Dialog Box



Follow the steps in the topic, "Selecting and Ordering Columns" on page 194, to select and order rows for the customized report.

Note:

This task is optional. Optional tasks are for informational purposes only and do *not* need to be performed as part of the tutorial.

Optional: To execute a predefined drill-through report without customizing it, in Available Reports, select a report and click Execute.

Integration Services retrieves the data from the relational source and displays the results in a spreadsheet. The sheet is added before the current sheet.

Selecting and Ordering Columns

Using the Drill-Through Wizard, you can customize predefined drill-through reports. The first task in using the Drill-Through Wizard is selecting and ordering columns to retrieve from the relational database. These columns contain detailed information that is not available in the Essbase database.

In the Select Columns and Display Order dialog box, you can select which columns you want Integration Services to retrieve from the relational data source. From this dialog box, you can also specify how the columns are displayed in the resulting report.

The Available Columns list consists of columns available from the relational data source for this report (as defined in Integration Services Console). The Selected Columns list box consists of

the columns from the Available Columns list in expanded form. You can remove columns from the Selected Columns list to exclude them from the drill-through report.

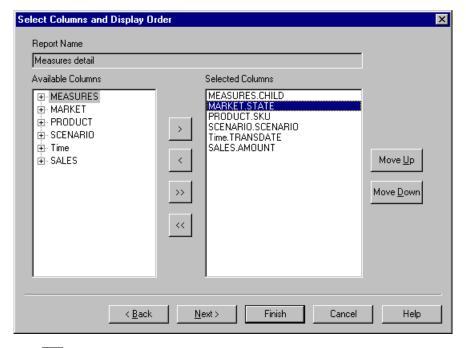
In this example, the columns from the Available Columns list are selected for inclusion in the sample Measures detail report. These columns are displayed in expanded form in the Selected Columns list.

- To remove one of the selected columns from the drill-through report:
- 1 From the Selected Columns list, select the MARKET.STATE column. (see Figure 190).

Note:

To select multiple columns in the list that are not adjacent to each other, hold down the Ctrl key and select each column. To select a range of columns, hold down the Shift key and click the first and last columns in the list, which also selects all columns in between them.

Figure 190 Selecting Columns to Remove from the Drill-Through Report



Click to move the selected column from the **Selected Columns** list back to the **Available Columns** list.

Note:

To move a column from one list to another, click or . To move all columns from one list to another, click or

3 Click Next to display Select Data Sort Order, and follow the steps in the topic, "Ordering Data" on page 196 to further customize the report.

Note:

When you finish customizing the report, click Finish at any time to generate the report and view the results in a new sheet. The new sheet is placed before the current sheet.

Ordering Data

In the Select Data Sort Order dialog box, you can select an ascending or descending sort order for the data in a column. Sort order determines the order in which rows will be displayed in the drill-through report. For example, you can sort the contents of the Time. TRANSDATE column, which represents the transaction dates, in ascending order in the drill-through report.

- To define the sort order of rows in the drill-through report:
- 1 In the **Available Columns** list, select the Time.TRANSDATE column.

The columns in the Available Columns list box are those that you selected in "Selecting and Ordering Columns" on page 194. The columns in the Column list are those for which a sort order has already been defined in Integration Services Console.

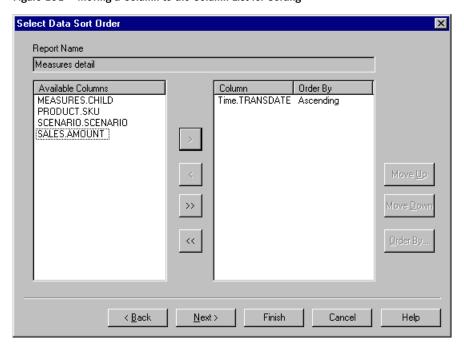
If a data sort order was selected when the report was created in Integration Services Console, the Order By list displays that selection. Otherwise, the default sort order is Ascending.

2 Click to move the Time.TRANSDATE column to the **Column** list (see Figure 191), so that you can define a sort order for the column.

Note:

To move a column from one list to another, click or . To move all columns from one list to another, click or >>>

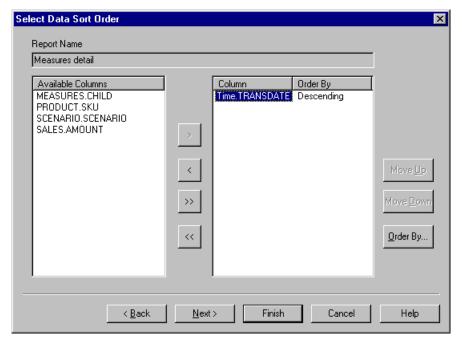
Figure 191 Moving a Column to the Column List for Sorting



In the Column list, double-click the Time.TRANSDATE column to change the data sort order from Ascending to Descending (see Figure 192).

This action causes transaction date values to be displayed in reverse chronological order in the drill-through report.

Figure 192 Selecting the Data Sort Order

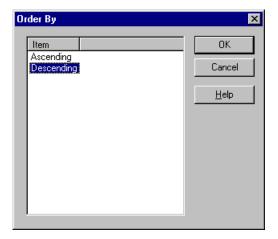


- 4 Optional: To change the data sort order for multiple columns simultaneously:
 - a. Hold down the Ctrl key and select the desired columns from Column.

Click Order By. b.

The Order By dialog box is displayed.

Figure 193 Order By Dialog Box



- c. Select Ascending or Descending, and click OK to return to Select Data Sort Order.
- Click Next to display Select Data Filters, and follow the steps in "Filtering Data" on page 198 to customize the report further.

Filtering Data

You can create and apply filters to determine what Integration Services retrieves for the drillthrough report. You can also save, edit, and delete the filters that you create. For any given column, you may want to retrieve only data that meets certain conditions. For example, the MEASURES.CHILD column in the sample database contains all children of the Measures dimension.

In the sample drill-through report, if you do not apply a filter to this list of measures, Integration Services retrieves all children from the relational source, because the sample drill-through report applies to all children of Measures. In this section, you will apply a filter to the MEASURES.CHILD column so that all children of Measures, except Misc, are included in the report.

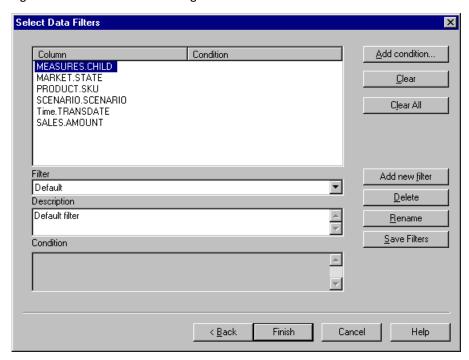
Note:

When you apply a filter on a non-level 0 member using Integration Services, the filter may return more members than expected. To work around this problem, use the Drill-Through Wizard.

- To define a filter:
- 1 In Column, select MEASURES.CHILD.

The columns in the Column list box are those that you selected in "Selecting and Ordering Columns" on page 194 (see Figure 194).

Figure 194 Select Data Filters Dialog Box



If a filter is attached to the column, it is displayed in the Condition column. The full string of the filter is displayed in the lower Condition text box.

2 With MEASURES.CHILD selected, click Add condition.

The Set Filter on Column dialog box is displayed (see Figure 195).

Figure 195 Set Filter on Column Dialog Box



3 From Column, select CHILD.

The column displayed in the Column drop-down list is the one that you selected in step 1 on page 198.

From **Operator**, select <> , which represents not equal to.

Note:

You can select multiple values at one time only if you have selected In or Not In as the filter operator. For more information on filter operators, see the Drill-through Help section of Oracle Essbase Spreadsheet Add-in Online Help.

5 Click Browse next to Condition to open Select Filter Values from the List, which lists all possible values for that column.

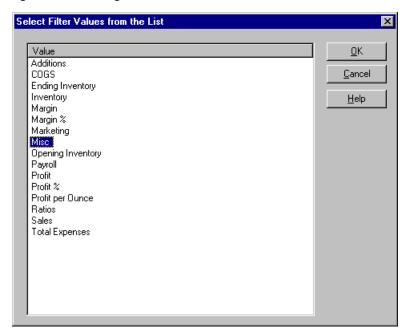
The Select Filter Values from the List dialog box is displayed.

Note:

Integration Services retrieves these values directly from the relational data source. If the relational data source contains many values, Integration Services confirms if you want to view them all before it retrieves them from the data source.

In Select Filter Values from the List, select Misc (see Figure 196), and click OK.

Figure 196 Selecting Filter Values from the List



The Set Filter On Column dialog box is displayed.

7 In **Set Filter On Column**, click **Add** to add the condition to **Filters**.

Note:

For information on using multiple filter conditions, see the Drill-through Help section of Oracle Essbase Spreadsheet Add-in Online Help.

The Set Filter on Column dialog box should look like Figure 197.

Figure 197 Defining a Filter for a Column



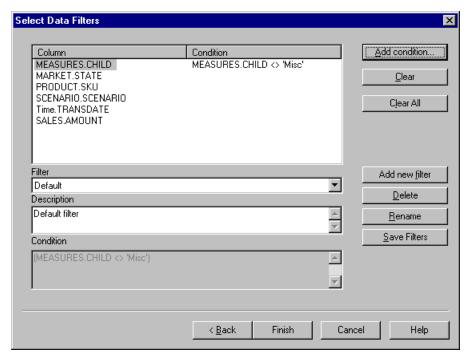
The filter defined above causes all children of Measures, except Misc data, to show in the drill-through report.

The Add button becomes unavailable after you create the first filter, but becomes available when you create another filter. In this tutorial, you are creating only one filter. The And and Or options are used when combining multiple filters. The default value is Or, which means that Integration Services applies the filter if any of the conditions that you specify are met. If you select And, Integration Services applies the filter only if *all* the conditions are met.

8 Click OK to return to Select Data Filters.

Notice that the filter defined in the Set Filter on Column dialog box is displayed in the Condition column and the Condition text box of the Select Data Filters dialog box.

Figure 198 Result of Defining a Filter for a Column



You can also create a filter by typing the filter conditions directly into the Filters text box of the Set Filter on Column dialog box. For more information, see the Drill-through Help section of Oracle Essbase Spreadsheet Add-in Online Help.

To clear a filter for a selected column, select the filter and click Clear. To clear all filters for all columns, click Clear All.

You can save the filter that you just created and then apply it to the MEASURES.CHILD column, so that all children of Measures, except Misc, are included in the report.

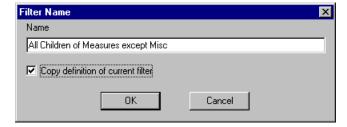
- To save the filter that you just created:
- 1 In Select Data Filters, click Add new filter.

The Filter Name dialog box is displayed.

2 In Name, enter the name for the filter that you are creating.

For this tutorial, enter All Children of Measures except Misc (see Figure 199).

Figure 199 Naming a Filter in the Filter Name Dialog Box



Select Copy definition of current filter.

Selecting Copy definition of current filter gives the filter the same description and conditions as the filter currently selected in the Select Data Filters dialog box.

4 Click OK.

The filter is added to the list of saved filters in the Select Data Filters dialog box.

- 5 Optional: To describe the filter, enter a short description for the filter in **Description**.
- 6 Click Save Filters.
- 7 Click **Finish** to apply the filter to the MEASURES.CHILD column, so that all children of Measures, except Misc, are included in the report.

Note:

You can also delete or rename filters. See Oracle Essbase Spreadsheet Add-in Online Help.

Oracle Essbase Integration Services generates the customized drill-through report and displays the results in a new spreadsheet. The new spreadsheet is added to the workbook before the current spreadsheet.

Figure 200 Customized Drill-Through Report

	Α	В	С	D	Е
1	CHILD	SKU	SCENARIO	TRANSDATE	AMOUNT
2	Additions	100-10	Actual	2000-12-09 00:00:00.000	123.97
3	COGS	100-10	Actual	2000-12-09 00:00:00.000	51.59
4	Marketing	100-10	Actual	2000-12-09 00:00:00.000	16.94
5	Payroll	100-10	Actual	2000-12-09 00:00:00.000	23.87
6	Sales	100-10	Actual	2000-12-09 00:00:00.000	392.7
7	Additions	100-10	Actual	2000-12-04 00:00:00.000	37.03
8	COGS	100-10	Actual	2000-12-04 00:00:00.000	15.41
9	Marketing	100-10	Actual	2000-12-04 00:00:00.000	5.06
10	Payroll	100-10	Actual	2000-12-04 00:00:00.000	7.13
11	Sales	100-10	Actual	2000-12-04 00:00:00.000	117.3
12	Additions	100-10	Actual	2000-11-28 00:00:00.000	53.82
13	cogs	100-10	Actual	2000-11-28 00:00:00.000	19.5
14	Marketing	100-10	Actual	2000-11-28 00:00:00.000	6.24
15	Payroll	100-10	Actual	2000-11-28 00:00:00.000	8.06
16	Sales	100-10	Actual	2000-11-28 00:00:00.000	118.04
17	Additions	100-10	Actual	2000-11-19 00:00:00.000	153.18
18	COGS	100-10	Actual	2000-11-19 00:00:00.000	55.5
19	Marketing	100-10	Actual	2000-11-19 00:00:00.000	17.76
20	Payroll	100-10	Actual	2000-11-19 00:00:00.000	22.94
21	Sales	100-10	Actual	2000-11-19 00:00:00.000	335.96
22	Additions	100-10	Actual	2000-10-16 00:00:00.000	191
23	cogs	100-10	Actual	2000-10-16 00:00:00.000	72

In this sample, the customized drill-through report reflects the specifications that you set using the Drill-Through Wizard:

- The Time.TRANSDATE column is sorted in descending order, displaying the transaction dates in reverse chronological order.
- All children of Measures, Additions, COGS, Marketing, Payroll, Sales, and Opening Inventory, except Misc, are displayed as you specified in the filtering part of the Drill-Through Wizard.

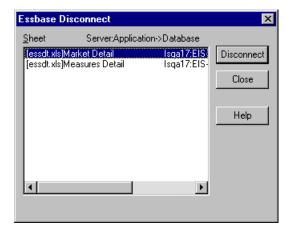
Disconnecting from Essbase

When you finish using drill-through, disconnect from Essbase to make a port available on the server for other Spreadsheet Add-in users.

- To disconnect from the server:
- 1 Select Essbase, then Disconnect.

The Essbase Disconnect dialog box is displayed, from which you can disconnect any spreadsheet that is connected to a database (see Figure 201).

Figure 201 Essbase Disconnect Dialog Box



Oracle Essbase may return an error message when you attempt to disconnect after using drillthrough. If an error message is returned, select Essbase, then Retrieve, from the sheet and then disconnect.

- 2 Select a sheet name from the list and click **Disconnect**.
- 3 Repeat step 2 until you have disconnected from all active sheets.
- 4 Click Close to close Essbase Disconnect.

Note:

You can also disconnect from the server by closing the spreadsheet application. An abnormal shutdown of a Oracle Essbase Spreadsheet Add-in session, such as a power loss or system failure, does not disconnect your server connection.

Glossary

! See bang character (!).

#MISSING See missing data (#MISSING).

access permissions A set of operations that a user can perform on a resource.

accessor Input and output data specifications for data mining algorithms.

account blocking The process by which accounts accept input data in the consolidated file. Blocked accounts do not receive their value through the additive consolidation process.

account eliminations Accounts which have their values set to zero in the consolidated file during consolidation.

account type How an account's value flows over time, and its sign behavior. Account type options can include expense, income, asset, liability, and equity.

accountability map A visual, hierarchical representation of the responsibility, reporting, and dependency structure of the accountability teams (also known as critical business areas) in an organization.

accounts dimension A dimension type that makes accounting intelligence available. Only one dimension can be defined as Accounts.

active service A service whose Run Type is set to Start rather than Hold.

activity-level authorization Defines user access to applications and the types of activities they can perform on applications, independent of the data that will be operated on.

ad hoc report An online analytical query created on-the-fly by an end user.

adapter Software that enables a program to integrate with data and metadata from target and source systems.

adaptive states Interactive Reporting Web Client level of permission.

adjustment See journal entry (JE).

Advanced Relational Access The integration of a relational database with an Essbase multidimensional database so that all data remains in the relational database and is mapped to summary-level data residing in the Essbase database.

agent An Essbase server process that starts and stops applications and databases, manages connections from users, and handles user-access security. The agent is referred to as ESSBASE.EXE.

aggregate cell A cell comprising several cells. For example, a data cell that uses Children(Year) expands to four cells containing Quarter 1, Quarter 2, Quarter 3, and Quarter 4 data.

aggregate function A type of function, such as sum or calculation of an average, that summarizes or performs analysis on data.

aggregate limit A limit placed on an aggregated request line item or aggregated metatopic item.

aggregate storage database The database storage model designed to support large-scale, sparsely distributed data which is categorized into many, potentially large dimensions. Upper level members and formulas are dynamically calculated, and selected data values are aggregated and stored, typically with improvements in overall aggregation time.

aggregate view A collection of aggregate cells based on the levels of the members within each dimension. To reduce calculation time, values are pre-aggregated and stored as aggregate views. Retrievals start from aggregate view totals and add up from there.

aggregation The process of rolling up and storing values in an aggregate storage database; the stored result of the aggregation process.

aggregation script In aggregate storage databases only, a file that defines a selection of aggregate views to be built into an aggregation.

alias An alternative name. For example, for a more easily identifiable column descriptor you can display the alias instead of the member name.

alias table A table that contains alternate names for members.

alternate hierarchy A hierarchy of shared members. An alternate hierarchy is based upon an existing hierarchy in a database outline, but has alternate levels in the dimension. An alternate hierarchy allows the same data to be seen from different points of view.

ancestor A branch member that has members below it. For example, the members Qtr2 and 2006 are ancestors of the member April.

appender A Log4j term for destination.

application (1) A software program designed to run a specific task or group of tasks such as a spreadsheet program or database management system. (2) A related set of dimensions and dimension members that are used to meet a specific set of analytical and/or reporting requirements.

application currency The default reporting currency for the application.

area A predefined set of members and values that makes up a partition.

arithmetic data load A data load that performs operations on values in the database, such as adding 10 to each value.

artifact An individual application or repository item; for example, scripts, forms, rules files, Interactive Reporting documents, and financial reports. Also known as an object.

assemblies Installation files for EPM System products or components.

asset account An account type that stores values that represent a company's assets.

assignment The association of a source and destination in the allocation model that controls the direction of allocated costs or revenue flow within Profitability and Cost Management.

attribute Characteristic of a dimension member. For example, Employee dimension members may have attributes of Name, Age, or Address. Product dimension members can have several attributes, such as a size and flavor.

attribute association A relationship in a database outline whereby a member in an attribute dimension describes a characteristic of a member of its base dimension. For example, if product 100-10 has a grape flavor, the product 100-10 has the Flavor attribute association of grape. Thus, the 100-10 member of the Product dimension is associated with the Grape member of the Flavor attribute dimension.

Attribute Calculations dimension A system-defined dimension that performs these calculation operations on groups of members: Sum, Count, Avg, Min, and Max. This dimension is calculated dynamically and is not visible in the database outline. For example, using the Avg member, you can calculate the average sales value for Red products in New York in January.

attribute dimension A type of dimension that enables analysis based on the attributes or qualities of dimension members.

attribute reporting A reporting process based on the attributes of the base dimension members. See also base dimension.

attribute type A text, numeric, Boolean, date, or linkedattribute type that enables different functions for grouping, selecting, or calculating data. For example, because the Ounces attribute dimension has the type numeric, the number of ounces specified as the attribute of each product can be used to calculate the profit per ounce for that product.

authentication Verification of identity as a security measure. Authentication is typically based on a user name and password. Passwords and digital signatures are forms of authentication.

authentication service A core service that manages one authentication system.

auto-reversing journal A journal for entering adjustments that you want to reverse in the next period.

automated stage A stage that does not require human intervention, for example, a data load.

axis (1) A straight line that passes through a graphic used for measurement and categorization. (2) A report aspect used to arrange and relate multidimensional data, such as filters, pages, rows, and columns. For example, for a data query in Simple Basic, an axis can define columns for values for Qtr1, Qtr2, Qtr3, and Qtr4. Row data would be retrieved with totals in the following hierarchy: Market, Product.

backup A duplicate copy of an application instance.

balance account An account type that stores unsigned values that relate to a particular point in time.

balanced journal A journal in which the total debits equal the total credits.

bang character (!) A character that terminates a series of report commands and requests information from the database. A report script must be terminated with a bang character; several bang characters can be used within a report script.

bar chart A chart that can consist of one to 50 data sets, with any number of values assigned to each data set. Data sets are displayed as groups of corresponding bars, stacked bars, or individual bars in separate rows.

base currency The currency in which daily business transactions are performed.

base dimension A standard dimension that is associated with one or more attribute dimensions. For example, assuming products have flavors, the Product dimension is the base dimension for the Flavors attribute dimension.

base entity An entity at the bottom of the organization structure that does not own other entities.

batch calculation Any calculation on a database that is done in batch; for example, a calculation script or a full database calculation. Dynamic calculations are not considered to be batch calculations.

batch file An operating system file that can call multiple ESSCMD scripts and run multiple sessions of ESSCMD. On Windows-based systems, batch files have BAT file extensions. On UNIX, batch files are written as a shell script.

batch loader An FDM component that enables the processing of multiple files.

batch POV A collection of all dimensions on the user POV of every report and book in the batch. While scheduling the batch, you can set the members selected on the batch POV.

batch processing mode A method of using ESSCMD to write a batch or script file that can be used to automate routine server maintenance and diagnostic tasks. ESSCMD script files can execute multiple commands and can be run from the operating system command line or from within operating system batch files. Batch files can be used to call multiple ESSCMD scripts or run multiple instances of ESSCMD.

block The primary storage unit which is a multidimensional array representing the cells of all dense dimensions.

block storage database The Essbase database storage model categorizing and storing data based on the sparsity of data values defined in sparse dimensions. Data values are stored in blocks, which exist only for sparse dimension members for which there are values.

Blocked Account An account that you do not want calculated in the consolidated file because you want to enter it manually.

book A container that holds a group of similar Financial Reporting documents. Books may specify dimension sections or dimension changes.

book POV The dimension members for which a book is run.

bookmark A link to a reporting document or a Web site, displayed on a personal page of a user. The two types of bookmarks are My Bookmarks and image bookmarks.

bounding rectangle The required perimeter that encapsulates the Interactive Reporting document content when embedding Interactive Reporting document sections in a personal page, specified in pixels for height and width or row per page.

broadcast message A simple text message sent by an administrator to a user who is logged on to a Planning application. The message displays information to the user such as system availability, notification of application refresh, or application backups.

budget administrator A person responsible for setting up, configuring, maintaining, and controlling an application. Has all application privileges and data access permissions.

build method A method used to modify database outlines. Choice of a build method is based on the format of data in data source files.

business process A set of activities that collectively accomplish a business objective.

business rules Logical expressions or formulas that are created within an application to produce a desired set of resulting values.

cache A buffer in memory that holds data temporarily.

calc script A set of commands that define how a database is consolidated or aggregated. A calculation script may also contain commands that specify allocation and other calculation rules separate from the consolidation process.

calculated member in MaxL DML A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

calculated member in MaxL DML A member designed for analytical purposes and defined in the optional WITH section of a MaxL DML query.

calculation The process of aggregating data, or of running a calculation script on a database.

Calculation Manager A module of Performance Management Architect that Planning and Financial Management users can use to design, validate, and administrate business rules in a graphical environment.

calculation status A consolidation status that indicates that some values or formula calculations have changed. You must reconsolidate to get the correct values for the affected entity.

calendar User-defined time periods and their relationship to each other. Q1, Q2, Q3, and Q4 comprise a calendar or fiscal year.

cascade The process of creating multiple reports for a subset of member values.

Catalog pane Displays a list of elements available to the active section. If Query is the active section, a list of database tables is displayed. If Pivot is the active section, a list of results columns is displayed. If Dashboard is the active section, a list of embeddable sections, graphic tools, and control tools are displayed.

categories Groupings by which data is organized. For example, Month.

cause and effect map Depicts how the elements that form your corporate strategy relate and how they work together to meet your organization's strategic goals. A Cause and Effect map tab is automatically created for each Strategy map.

CDF See custom-defined function (CDF).

CDM See custom-defined macro (CDM).

cell (1) The data value at the intersection of dimensions in a multidimensional database; the intersection of a row and a column in a worksheet. (2) A logical group of nodes belonging to one administrative domain.

cell note A text annotation for a cell in an Essbase database. Cell notes are a type of LRO.

CHANGED status Consolidation status that indicates data for an entity has changed.

chart A graphical representation of spreadsheet data. The visual nature expedites analysis, color-coding, and visual cues that aid comparisons.

chart template A template that defines the metrics to display in Workspace charts.

child A member with a parent above it in the database outline.

choice list A list of members that a report designer can specify for each dimension when defining the report's point of view. A user who wants to change the point of view for a dimension that uses a choice list can select only the members specified in that defined member list or those members that meet the criteria defined in the function for the dynamic list.

clean block A data block that where the database is fully calculated, if a calculation script calculates all dimensions at once, or if the SET CLEARUPDATESTATUS command is used in a calculation script.

cluster An array of servers or databases that behave as a single resource which share task loads and provide failover support; eliminates one server or database as a single point of failure in a system.

clustered bar charts Charts in which categories are viewed side-by-side; useful for side-by-side category analysis; used only with vertical bar charts.

code page A mapping of bit combinations to a set of text characters. Different code pages support different sets of characters. Each computer contains a code page setting for the character set requirements of the language of the computer user. In the context of this document, code pages map characters to bit combinations for non-Unicode encodings. *See also encoding*.

column A vertical display of information in a grid or table. A column can contain data from one field, derived data from a calculation, or textual information.

committed access An Essbase Kernel Isolation Level setting that affects how Essbase handles transactions. Under committed access, concurrent transactions hold long-term write locks and yield predictable results.

computed item A virtual column (as opposed to a column that is physically stored in the database or cube) that can be calculated by the database during a query, or by Interactive Reporting Studio in the Results section. Computed items are calculations of data based on functions, data items, and operators provided in the dialog box and can be included in reports or reused to calculate other data.

configuration file The security platform relies on XML documents to be configured by the product administrator or software installer. The XML document must be modified to indicate meaningful values for properties, specifying locations and attributes pertaining to the corporate authentication scenario.

connection file See Interactive Reporting connection file (.oce).

consolidated file (Parent) A file into which all of the business unit files are consolidated; contains the definition of the consolidation.

consolidation The process of aggregating data from dependent entities to parent entities. For example, if the dimension Year consists of the members Qtr1, Qtr2, Qtr3, and Qtr4, its consolidation is Year.

consolidation file (*.cns) The consolidation file is a graphical interface that enables you to add, delete or move Strategic Finance files in the consolidation process using either a Chart or Tree view. It also enables you to define and modify the consolidation.

consolidation rule Identifies the rule that is executed during the consolidation of the node of the hierarchy. This rule can contain customer specific formulas appropriate for the correct consolidation of parent balances. Elimination processing can be controlled within these rules.

content Information stored in the repository for any type of file.

content browser A Component that allows users to Browse and select content to be placed in a Workspace Page.

context variable A variable that is defined for a particular task flow to identify the context of the taskflow instance.

contribution The value added to a parent from a child entity. Each child has a contribution to its parent.

controls group Used in FDM to maintain and organize certification and assessment information, especially helpful for meeting Sarbanes-Oxley requirements.

conversion rate See exchange rate.

cookie A segment of data placed on your computer by a Web site.

correlated subqueries Subqueries that are evaluated once for every row in the parent query; created by joining a topic item in the subquery with a topic in the parent query.

critical business area (CBA) An individual or a group organized into a division, region, plant, cost center, profit center, project team, or process; also called accountability team or business area.

critical success factor (CSF) A capability that must be established and sustained to achieve a strategic objective; owned by a strategic objective or a critical process and is a parent to one or more actions.

crosstab reporting Categorizes and summarizes data in table format. The table cells contain summaries of the data that fit within the intersecting categories. For example, a crosstab report of product sales information could show size attributes, such as Small and Large, as column headings and color attributes, such as Blue and Yellow, as row headings. The cell in the table where Large and Blue intersect could contain the total sales of all Blue products that are sized Large.

cube A block of data that contains three or more dimensions. An Essbase database is a cube.

cube deployment In Essbase Studio, the process of setting load options for a model to build an outline and load data into an Essbase application and database.

cube schema In Essbase Studio, the metadata elements, such as measures and hierarchies, representing the logical model of a cube.

currency conversion A process that converts currency values in a database from one currency into another. For example, to convert one U. S. dollar into the European euro, the exchange rate (for example, 0.923702) is multiplied with the dollar (1* 0.923702). After conversion, the European euro amount is .92.

Currency Overrides In any input period, the selected input method can be overridden to enable input of that period's value as Default Currency/Items. To override the input method, enter a pound sign (#) either before or after the number.

currency partition A dimension type that separates local currency members from a base currency, as defined in an application. Identifies currency types, such as Actual, Budget, and Forecast.

custom calendar Any calendar created by an administrator.

custom dimension A dimension created and defined by users. Channel, product, department, project, or region could be custom dimensions.

custom property A property of a dimension or dimension member that is created by a user.

custom report A complex report from the Design Report module, composed of any combination of components.

custom-defined function (CDF) Essbase calculation functions developed in Java and added to the standard Essbase calculation scripting language using MaxL. *See also custom-defined macro* (CDM).

custom-defined macro (CDM) Essbase macros written with Essbase calculator functions and special macro functions. Custom-defined macros use an internal Essbase macro language that enables the combination of calculation functions and they operate on multiple input parameters. See also custom-defined function (CDF).

cycle through To perform multiple passes through a database while calculating it.

dashboard A collection of metrics and indicators that provide an interactive summary of your business. Dashboards enable you to build and deploy analytic applications.

data cache A buffer in memory that holds uncompressed data blocks.

data cell See cell.

data file cache A buffer in memory that holds compressed data (PAG) files.

data form A grid display that enables users to enter data into the database from an interface such as a Web browser, and to view and analyze data or related text. Certain dimension member values are fixed, giving users a specific view into the data.

data function That computes aggregate values, including averages, maximums, counts, and other statistics, that summarize groupings of data.

data load location In FDM, a reporting unit responsible for submitting source data into the target system. Typically, there is one FDM data load location for each source file loaded to the target system.

data load rules A set of criteria that determines how to load data from a text-based file, a spreadsheet, or a relational data set into a database.

data lock Prevents changes to data according to specified criteria, such as period or scenario.

data mining The process of searching through an Essbase database for hidden relationships and patterns in a large amount of data.

data model A representation of a subset of database tables.

data value See cell.

database connection File that stores definitions and properties used to connect to data sources and enables database references to be portable and widely used.

date measure In Essbase, a member tagged as "Date" in the dimension where measures are represented. The cell values are displayed as formatted dates. Dates as measures can be useful for types of analysis that are difficult to represent using the Time dimension. For example, an application may need to track acquisition dates for a series of capital assets, but the acquisition dates span too large a period to allow for feasible Time dimension modeling. See also typed measure.

Default Currency Units Define the unit scale of data. For example, if you select to define your analysis in Thousands, and enter "10", this is interpreted as "10,000".

dense dimension In block storage databases, a dimension likely to contain data for every combination of dimension members. For example, time dimensions are often dense because they can contain all combinations of all members. *Contrast with sparse dimension*.

dependent entity An entity that is owned by another entity in the organization.

derived text measure In Essbase Studio, a text measure whose values are governed by a predefined rule expressed as a range. For example, a derived text measure, called "Sales Performance Index," based on a measure Sales, could consist of the values "High," "Medium," and "Low." This derived text measure is defined to display "High," "Medium," and "Low" depending on the range in which the corresponding sales values fall. *See also text measure*.

descendant Any member below a parent in the database outline. In a dimension that includes years, quarters, and months, the members Qtr2 and April are descendants of the member Year.

Design Report An interface in Web Analysis Studio for designing custom reports, from a library of components.

destination Within a Profitability and Cost Management assignment, the destination is the receiving point for allocated values.

destination currency The currency to which balances are converted. You enter exchange rates and convert from the source currency to the destination currency. For example, when you convert from EUR to USD, the destination currency is USD.

detail chart A chart that provides the detailed information that you see in a Summary chart. Detail charts appear in the Investigate Section in columns below the Summary charts. If the Summary chart shows a Pie chart, then the Detail charts below represent each piece of the pie.

dimension A data category used to organize business data for retrieval and preservation of values. Dimensions usually contain hierarchies of related members grouped within them. For example, a Year dimension often includes members for each time period, such as quarters and months.

dimension build The process of adding dimensions and members to an Essbase outline.

dimension build rules Specifications, similar to data load rules, that Essbase uses to modify an outline. The modification is based on data in an external data source file.

dimension tab In the Pivot section, the tab that enables you to pivot data between rows and columns.

dimension table (1) A table that includes numerous attributes about a specific business process. (2) In Essbase Integration Services, a container in the OLAP model for one or more relational tables that define a potential dimension in Essbase.

dimension type A dimension property that enables the use of predefined functionality. Dimensions tagged as time have a predefined calendar functionality.

dimensionality In MaxL DML, the represented dimensions (and the order in which they are represented) in a set. For example, the following set consists of two tuples of the same dimensionality because they both reflect the dimensions (Region, Year): { (West, Feb), (East, Mar) }

direct rate A currency rate that you enter in the exchange rate table. The direct rate is used for currency conversion. For example, to convert balances from JPY to USD, In the exchange rate table, enter a rate for the period/scenario where the source currency is JPY and the destination currency is USD.

dirty block A data block containing cells that have been changed since the last calculation. Upper level blocks are marked as dirty if their child blocks are dirty (that is, they have been updated).

display type One of three Web Analysis formats saved to the repository: spreadsheet, chart, and pinboard.

dog-ear The flipped page corner in the upper right corner of the chart header area.

domain In data mining, a variable representing a range of navigation within data.

drill-down Navigation through the query result set using the dimensional hierarchy. Drilling down moves the user perspective from aggregated data to detail. For example, drilling down can reveal hierarchical relationships between years and quarters or quarters and months.

drill-through The navigation from a value in one data source to corresponding data in another source.

driver A driver is an allocation method that describes the mathematical relationship between the sources that utilize the driver, and the destinations to which those sources allocate cost or revenue.

duplicate alias name A name that occurs more than once in an alias table and that can be associated with more than one member in a database outline. Duplicate alias names can be used with duplicate member outlines only.

duplicate member name The multiple occurrence of a member name in a database, with each occurrence representing a different member. For example, a database has two members named "New York." One member represents New York state and the other member represents New York city.

duplicate member outline A database outline containing duplicate member names.

Dynamic Calc and Store members A member in a block storage outline that Essbase calculates only upon the first retrieval of the value. Essbase then stores the calculated value in the database. Subsequent retrievals do not require calculating.

Dynamic Calc members A member in a block storage outline that Essbase calculates only at retrieval time. Essbase discards calculated values after completing the retrieval

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-todate reporting in block storage databases.

dynamic view account An account type indicating that account values are calculated dynamically from the data that is displayed.

Eliminated Account An account that does not appear in the consolidated file.

elimination The process of zeroing out (eliminating) transactions between entities within an organization.

employee A user responsible for, or associated with, specific business objects. Employees need not work for an organization; for example, they can be consultants. Employees must be associated with user accounts for authorization purposes.

encoding A method for mapping bit combinations to characters for creating, storing, and displaying text. Each encoding has a name; for example, UTF-8. Within an encoding, each character maps to a specific bit combination; for example, in UTF-8, uppercase A maps to HEX41. See also code page and locale.

ending period A period enabling you to adjust the date range in a chart. For example, an ending period of "month", produces a chart showing information through the end of the current month.

Enterprise View An Administration Services feature that enables management of the Essbase environment from a graphical tree view. From Enterprise View, you can operate directly on Essbase artifacts.

entity A dimension representing organizational units. Examples: divisions, subsidiaries, plants, regions, products, or other financial reporting units.

Equity Beta The riskiness of a stock, measured by the variance between its return and the market return, indicated by an index called "beta". For example, if a stock's return normally moves up or down 1.2% when the market moves up or down 1%, the stock has a beta of 1.2.

essbase.cfg An optional configuration file for Essbase. Administrators may edit this file to customize Essbase Server functionality. Some configuration settings may also be used with Essbase clients to override Essbase Server settings.

EssCell A function entered into a cell in Essbase Spreadsheet Add-in to retrieve a value representing an intersection of specific Essbase database members.

ESSCMD A command-line interface for performing Essbase operations interactively or through batch script files.

ESSLANG The Essbase environment variable that defines the encoding used to interpret text characters. *See also encoding*.

ESSMSH See MaxL Shell.

exceptions Values that satisfy predefined conditions. You can define formatting indicators or notify subscribing users when exceptions are generated.

exchange rate A numeric value for converting one currency to another. For example, to convert 1 USD into EUR, the exchange rate of 0.8936 is multiplied with the U.S. dollar. The European euro equivalent of \$1 is 0.8936.

exchange rate type An identifier for an exchange rate. Different rate types are used because there may be multiple rates for a period and year. Users traditionally define rates at period end for the average rate of the period and for the end of the period. Additional rate types are historical rates, budget rates, forecast rates, and so on. A rate type applies to one point in time.

expense account An account that stores periodic and year-to-date values that decrease net worth if they are positive.

Extensible Markup Language (XML) A language comprising a set of tags used to assign attributes to data that can be interpreted between applications according to a schema.

external authentication Logging on to Oracle's Hyperion applications with user information stored outside the applications, typically in a corporate directory such as MSAD or NTLM.

externally triggered events Non-time-based events for scheduling job runs.

Extract, Transform, and Load (ETL) Data source-specific programs for extracting data and migrating it to applications.

extraction command An Essbase reporting command that handles the selection, orientation, grouping, and ordering of raw data extracted from a database; begins with the less than (<) character.

fact table The central table in a star join schema, characterized by a foreign key and elements drawn from a dimension table. This table typically contains numeric data that can be related to all other tables in the schema.

Favorites gadget Contains links to Reporting and Analysis documents and URLs.

field An item in a data source file to be loaded into an Essbase database.

file delimiter Characters, such as commas or tabs, that separate fields in a data source.

filter A constraint on data sets that restricts values to specific criteria; for example, to exclude certain tables, metadata, or values, or to control access.

flow account An unsigned account that stores periodic and year-to-date values.

folder A file containing other files for the purpose of structuring a hierarchy.

footer Text or images at the bottom of report pages, containing dynamic functions or static text such as page numbers, dates, logos, titles or file names, and author names.

format Visual characteristics of documents or report objects.

format string In Essbase, a method for transforming the way cell values are displayed.

formula A combination of operators, functions, dimension and member names, and numeric constants calculating database members.

frame An area on the desktop. There are two main areas: the navigation and Workspace frames.

free-form grid An object for presenting, entering, and integrating data from different sources for dynamic calculations.

free-form reporting Creating reports by entering dimension members or report script commands in worksheets.

function A routine that returns values or database members.

gadget Simple, specialized, lightweight applications that provide easy viewing of EPM content and enable access to core Reporting and Analysis functionality.

genealogy data Additional data that is optionally generated after allocation calculations. This data enables reporting on all cost or revenue flows from start to finish through all allocation steps.

generation A layer in a hierarchical tree structure that defines member relationships in a database. Generations are ordered incrementally from the top member of the dimension (generation 1) down to the child members. Use the unique generation name to identify a layer in the hierarchical tree structure.

generic jobs Non-SQR Production Reporting or non-Interactive Reporting jobs.

global report command A command in a running report script that is effective until replaced by another global command or the file ends.

grid POV A means for specifying dimension members on a grid without placing dimensions in rows, columns, or page intersections. A report designer can set POV values at the grid level, preventing user POVs from affecting the grid. If a dimension has one grid value, you put the dimension into the grid POV instead of the row, column, or page.

group A container for assigning similar access permissions to multiple users.

GUI Graphical user interface

head up display A mode that shows your loaded Smart Space desktop including the background image above your Windows desktop.

highlighting Depending on your configuration, chart cells or ZoomChart details may be highlighted, indicating value status: red (bad), yellow (warning), or green (good).

Historical Average An average for an account over a number of historical periods.

holding company An entity that is part of a legal entity group, with direct or indirect investments in all entities in the group.

host A server on which applications and services are installed.

host properties Properties pertaining to a host, or if the host has multiple Install_Homes, to an Install_Home. The host properties are configured from the CMC.

Hybrid Analysis An analysis mapping low-level data stored in a relational database to summary-level data stored in Essbase, combining the mass scalability of relational systems with multidimensional data.

hyperlink A link to a file, Web page, or an intranet HTML page.

Hypertext Markup Language (HTML) A programming language specifying how Web browsers display data.

identity A unique identification for a user or group in external authentication.

image bookmarks Graphic links to Web pages or repository items.

IMPACTED status Indicates changes in child entities consolidating into parent entities.

implied share A member with one or more children, but only one is consolidated, so the parent and child share a value.

import format In FDM, defines the structure of the source file which enables the loading of a source data file to an FDM data load location.

inactive group A group for which an administrator has deactivated system access.

inactive service A service suspended from operating.

INACTIVE status Indicates entities deactivated from consolidation for the current period.

inactive user A user whose account has been deactivated by an administrator.

income account An account storing periodic and year-to-date values that, if positive, increase net worth.

index (1) A method where Essbase uses sparse-data combinations to retrieve data in block storage databases. (2) The index file.

index cache A buffer containing index pages.

index entry A pointer to an intersection of sparse dimensions. Index entries point to data blocks on disk and use offsets to locate cells.

index file An Essbase file storing block storage data retrieval information, residing on disk, and containing index pages.

index page A subdivision in an index file. Contains pointers to data blocks.

input data Data loaded from a source rather than calculated.

Install_Home A variable for the directory where EPM System products are installed. Refers to one instance of an EPM System product when multiple applications are installed on the same computer.

integration Process that is run to move data between EPM System products using Shared Services. Data integration definitions specify the data moving between a source application and a destination application, and enable the data movements to be grouped, ordered, and scheduled.

intelligent calculation A calculation method tracking updated data blocks since the last calculation.

Interactive Reporting connection file (.oce) Files encapsulating database connection information, including: the database API (ODBC, SQL*Net, etc.), database software, the database server network address, and database user name. Administrators create and publish Interactive Reporting connection files (.oce).

intercompany elimination See elimination.

intercompany matching The process of comparing balances for pairs of intercompany accounts within an application. Intercompany receivables are compared to intercompany payables for matches. Matching accounts are used to eliminate intercompany transactions from an organization's consolidated totals.

intercompany matching report A report that compares intercompany account balances and indicates if the accounts are in, or out, of balance.

interdimensional irrelevance A situation in which a dimension does not intersect with other dimensions. Because the data in the dimension cannot be accessed from the non-intersecting dimensions, the non-intersecting dimensions are not relevant to that dimension.

intersection A unit of data representing the intersection of dimensions in a multidimensional database; also, a worksheet cell.

intrastage assignment Assignments in the financial flow that are assigned to objects within the same stage.

introspection A deep inspection of a data source to discover hierarchies based on the inherent relationships in the database. *Contrast with scraping*.

Investigation See drill-through.

isolation level An Essbase Kernel setting that determines the lock and commit behavior of database operations. Choices are: committed access and uncommitted access.

iteration A "pass" of the budget or planning cycle in which the same version of data is revised and promoted.

Java Database Connectivity (JDBC) A client-server communication protocol used by Java based clients and relational databases. The JDBC interface provides a call-level API for SQL-based database access.

job output Files or reports produced from running a job.

jobs Documents with special properties that can be launched to generate output. A job can contain Interactive Reporting, SQR Production Reporting, or generic documents.

join A link between two relational database tables or topics based on common content in a column or row. A join typically occurs between identical or similar items within different tables or topics. For example, a record in the Customer table is joined to a record in the Orders table because the Customer ID value is the same in each table.

journal entry (JE) A set of debit/credit adjustments to account balances for a scenario and period.

JSP Java Server Pages.

KeyContacts gadget Contains a group of Smart Space users and provides access to Smart Space Collaborator. For example, you can have a KeyContacts gadget for your marketing team and another for your development team.

latest A Spreadsheet key word used to extract data values from the member defined as the latest time period.

layer (1) The horizontal location of members in a hierarchical structure, specified by generation (top down) or level (bottom up). (2) Position of objects relative to other objects. For example, in the Sample Basic database, Qtr1 and Qtr4 are in the same layer, so they are also in the same generation, but in a database with a ragged hierarchy, Qtr1 and Qtr4 might not be in same layer, though they are in the same generation.

layout area Used to designate an area on a Workspace Page where content can be placed.

legend box A box containing labels that identify the data categories of a dimension.

level A layer in a hierarchical tree structure that defines database member relationships. Levels are ordered from the bottom dimension member (level 0) up to the parent members.

level 0 block A data block for combinations of sparse, level 0 members.

level 0 member A member that has no children.

liability account An account type that stores "point in time" balances of a company's liabilities. Examples of liability accounts include accrued expenses, accounts payable, and long term debt.

life cycle management The process of managing application information from inception to retirement.

Lifecycle Management Utility A command-line utility for migrating applications and artifacts.

line chart A chart that displays one to 50 data sets, each represented by a line. A line chart can display each line stacked on the preceding ones, as represented by an absolute value or a percent.

line item detail The lowest level of detail in an account.

lineage The relationship between different metadata elements showing how one metadata element is derived from one or more other metadata elements, ultimately tracing the metadata element to its physical source. In Essbase Studio, a lineage viewer displays the relationships graphically. See also traceability.

link (1) A reference to a repository object. Links can reference folders, files, shortcuts, and other links. (2) In a task flow, the point where the activity in one stage ends and another begins.

link condition A logical expression evaluated by the taskflow engine to determine the sequence of launching taskflow stages.

linked data model Documents that are linked to a master copy in a repository.

linked partition A shared partition that enables you to use a data cell to link two databases. When a user clicks a linked cell in a worksheet, Essbase opens a new sheet displaying the dimensions in the linked database. The user can then drill down those dimensions.

linked reporting object (LRO) A cell-based link to an external file such as cell notes, URLs, or files with text, audio, video, or pictures. (Only cell notes are supported for Essbase LROs in Financial Reporting.) *Contrast with local report object.*

local currency An input currency type. When an input currency type is not specified, the local currency matches the entity's base currency.

local report object A report object that is not linked to a Financial Reporting report object in Explorer. *Contrast with linked reporting object (LRO)*.

local results A data model's query results. Results can be used in local joins by dragging them into the data model. Local results are displayed in the catalog when requested.

locale A computer setting that specifies a location's language, currency and date formatting, data sort order, and the character set encoding used on the computer. Essbase uses only the encoding portion. *See also encoding* and *ESSLANG*.

locale header record A text record at the beginning of some non-Unicode-encoded text files, such as scripts, that identifies the encoding locale.

location alias A descriptor that identifies a data source. The location alias specifies a server, application, database, user name, and password. Location aliases are set by DBAs at the database level using Administration Services Console, ESSCMD, or the API.

locked A user-invoked process that prevents users and processes from modifying data.

locked data model Data models that cannot be modified by a user.

LOCKED status A consolidation status indicating that an entity contains data that cannot be modified.

Log Analyzer An Administration Services feature that enables filtering, searching, and analysis of Essbase logs.

logic group In FDM, contains one or more logic accounts that are generated after a source file is loaded into FDM. Logic accounts are calculated accounts that are derived from the source data.

LRO See linked reporting object (LRO).

managed server An application server process running in its own Java Virtual Machine (JVM).

manual stage A stage that requires human intervention to complete.

Map File Used to store the definition for sending data to or retrieving data from an external database. Map files have different extensions (.mps to send data; .mpr to retrieve data).

Map Navigator A feature that displays your current position on a Strategy, Accountability, or Cause and Effect map, indicated by a red outline.

Marginal Tax Rate Used to calculate the after-tax cost of debt. Represents the tax rate applied to the last earned income dollar (the rate from the highest tax bracket into which income falls) and includes federal, state and local taxes. Based on current level of taxable income and tax bracket, you can predict marginal tax rate.

Market Risk Premium The additional rate of return paid over the risk-free rate to persuade investors to hold "riskier" investments than government securities. Calculated by subtracting the risk-free rate from the expected market return. These figures should closely model future market conditions.

master data model An independent data model that is referenced as a source by multiple queries. When used, "Locked Data Model" is displayed in the Query section's Content pane; the data model is linked to the master data model displayed in the Data Model section, which an administrator may hide.

mathematical operator A symbol that defines how data is calculated in formulas and outlines. Can be any of the standard mathematical or Boolean operators; for example, +, -, *, /, and %.

MaxL The multidimensional database access language for Essbase, consisting of a data definition language (MaxL DDL) and a data manipulation language (MaxL DML). See also MaxL DDL, MaxL DML, and MaxL Shell.

MaxL DDL Data definition language used by Essbase for batch or interactive system-administration tasks.

MaxL DML Data manipulation language used in Essbase for data query and extraction.

MaxL Perl Module A Perl module (essbase.pm) that is part of Essbase MaxL DDL. This module can be added to the Perl package to provide access to Essbase databases from Perl programs.

MaxL Script Editor A script-development environment in Administration Services Console. MaxL Script Editor is an alternative to using a text editor and the MaxL Shell for administering Essbase with MaxL scripts.

MaxL Shell An interface for passing MaxL statements to Essbase Server. The MaxL Shell executable file is located in the Essbase bin directory (UNIX: essmsh, Windows: essmsh.exe).

MDX (multidimensional expression) The language that give instructions to OLE DB for OLAP- compliant databases, as SQL is used for relational databases. When you build the OLAPQuery section's Outliner, Interactive Reporting Clients translate requests into MDX instructions. When you process the query, MDX is sent to the database server, which returns records that answer your query. See also SQL spreadsheet.

measures Numeric values in an OLAP database cube that are available for analysis. Measures are margin, cost of goods sold, unit sales, budget amount, and so on. *See also fact table*.

member A discrete component within a dimension. A member identifies and differentiates the organization of similar units. For example, a time dimension might include such members as Jan, Feb, and Otrl.

member list A named group, system- or user-defined, that references members, functions, or member lists within a dimension.

member load In Integration Services, the process of adding dimensions and members (without data) to Essbase outlines.

member selection report command A type of Report Writer command that selects member ranges based on outline relationships, such as sibling, generation, and level.

member-specific report command A type of Report Writer formatting command that is executed as it is encountered in a report script. The command affects only its associated member and executes the format command before processing the member.

merge A data load option that clears values only from the accounts specified in the data load file and replaces them with values in the data load file.

metadata A set of data that defines and describes the properties and attributes of the data stored in a database or used by an application. Examples of metadata are dimension names, member names, properties, time periods, and security.

metadata elements Metadata derived from data sources and other metadata that is stored and cataloged for Essbase Studio use.

metadata sampling The process of retrieving a sample of members in a dimension in a drill-down operation.

metadata security Security set at the member level to restrict users from accessing certain outline members.

metaoutline In Integration Services, a template containing the structure and rules for creating an Essbase outline from an OLAP model.

metric A numeric measurement computed from business data to help assess business performance and analyze company trends.

migration The process of copying applications, artifacts, or users from one environment or computer to another; for example, from a testing environment to a production environment.

migration audit report A report generated from the migration log that provides tracking information for an application migration.

migration definition file (.mdf) A file that contains migration parameters for an application migration, enabling batch script processing.

migration log A log file that captures all application migration actions and messages.

migration snapshot A snapshot of an application migration that is captured in the migration log.

MIME Type (Multipurpose Internet Mail Extension) An attribute that describes the data format of an item, so that the system knows which application should open the object. A file's mime type is determined by the file extension or HTTP header. Plug-ins tell browsers what mime types they support and what file extensions correspond to each mime type.

mining attribute In data mining, a class of values used as a factor in analysis of a set of data.

minireport A report component that includes layout, content, hyperlinks, and the query or queries to load the report. Each report can include one or more minireports.

minischema A graphical representation of a subset of tables from a data source that represents a data modeling context.

missing data (#MISSING) A marker indicating that data in the labeled location does not exist, contains no value, or was never entered or loaded. For example, missing data exists when an account contains data for a previous or future period but not for the current period.

model (1) In data mining, a collection of an algorithm's findings about examined data. A model can be applied against a wider data set to generate useful information about that data. (2) A file or content string containing an application-specific representation of data. Models are the basic data managed by Shared Services, of two major types: dimensional and non-dimensional application objects. (3) In Business Modeling, a network of boxes connected to represent and calculate the operational and financial flow through the area being examined.

monetary A money-related value.

multidimensional database A method of organizing, storing, and referencing data through three or more dimensions. An individual value is the intersection point for a set of dimensions. *Contrast with relational database*.

multiload An FDM feature that allows the simultaneous loading of multiple periods, categories, and locations.

My Workspace Page A page created with content from multiple sources including documents, URL, and other content types. Enables a user to aggregate content from Oracle and non-Oracle sources.

named set In MaxL DML, a set with its logic defined in the optional WITH section of a MaxL DML query. The named set can be referenced multiple times in the query.

native authentication The process of authenticating a user name and password from within the server or application.

nested column headings A report column heading format that displays data from multiple dimensions. For example, a column heading that contains Year and Scenario members is a nested column. The nested column heading shows Q1 (from the Year dimension) in the top line of the heading, qualified by Actual and Budget (from the Scenario dimension) in the bottom line of the heading.

NO DATA status A consolidation status indicating that this entity contains no data for the specified period and account.

non-dimensional model A Shared Services model type that includes application objects such as security files, member lists, calculation scripts, and Web forms.

non-unique member name See duplicate member name.

note Additional information associated with a box, measure, scorecard or map element.

Notifications gadget Shows notification message history received from other users or systems.

null value A value that is absent of data. Null values are not equal to zero.

numeric attribute range A feature used to associate a base dimension member that has a discrete numeric value with an attribute that represents a value range. For example, to classify customers by age, an Age Group attribute dimension can contain members for the following age ranges: 0-20, 21-40, 41-60, and 61-80. Each Customer dimension member can be associated with an Age Group range. Data can be retrieved based on the age ranges rather than on individual age values.

ODBC Open Database Connectivity. A database access method used from any application regardless of how the database management system (DBMS) processes the information.

OK status A consolidation status indicating that an entity has already been consolidated, and that data has not changed below it in the organization structure.

OLAP Metadata Catalog In Integration Services, a relational database containing metadata describing the nature, source, location, and type of data that is pulled from the relational data source.

OLAP model In Integration Services, a logical model (star schema) that is created from tables and columns in a relational database. The OLAP model is then used to generate the structure of a multidimensional database.

online analytical processing (OLAP) A multidimensional, multiuser, client-server computing environment for users who analyze consolidated enterprise data in real time. OLAP systems feature drill-down, data pivoting, complex calculations, trend analysis, and modeling.

Open Database Connectivity (ODBC) Standardized application programming interface (API) technology that allows applications to access multiple third-party databases.

organization An entity hierarchy that defines each entity and their relationship to others in the hierarchy.

origin The intersection of two axes.

outline The database structure of a multidimensional database, including all dimensions, members, tags, types, consolidations, and mathematical relationships. Data is stored in the database according to the structure defined in the outline.

outline synchronization For partitioned databases, the process of propagating outline changes from one database to another database.

P&L accounts (P&L) Profit and loss accounts. Refers to a typical grouping of expense and income accounts that comprise a company's income statement.

page A display of information in a grid or table often represented by the Z-axis. A page can contain data from one field, derived data from a calculation, or text.

page file Essbase data file.

page heading A report heading type that lists members represented on the current page of the report. All data values on the page have the members in the page heading as a common attribute.

page member A member that determines the page axis.

palette A JASC compliant file with a .PAL extension. Each palette contains 16 colors that complement each other and can be used to set the dashboard color elements.

parallel calculation A calculation option. Essbase divides a calculation into tasks and calculates some tasks simultaneously.

parallel data load In Essbase, the concurrent execution of data load stages by multiple process threads.

parallel export The ability to export Essbase data to multiple files. This may be faster than exporting to a single file, and it may resolve problems caused by a single data file becoming too large for the operating system to handle.

parent adjustments The journal entries that are posted to a child in relation to its parent.

parents The entities that contain one or more dependent entities that report directly to them. Because parents are both entities and associated with at least one node, they have entity, node, and parent information associated with them.

partition area A sub cube within a database. A partition is composed of one or more areas of cells from a portion of the database. For replicated and transparent partitions, the number of cells within an area must be the same for the data source and target to ensure that the two partitions have the same shape. If the data source area contains 18 cells, the data target area must also contain 18 cells to accommodate the number of values.

partitioning The process of defining areas of data that are shared or linked between data models. Partitioning can affect the performance and scalability of Essbase applications.

pattern matching The ability to match a value with any or all characters of an item entered as a criterion. Missing characters may be represented by wild card values such as a question mark (?) or an asterisk (*). For example, "Find all instances of apple" returns apple, but "Find all instances of apple*" returns apple, applesauce, applecranberry, and so on.

percent consolidation The portion of a child's values that is consolidated to its parent.

percent control Identifies the extent to which an entity is controlled within the context of its group.

percent ownership Identifies the extent to which an entity is owned by its parent.

performance indicator An image file used to represent measure and scorecard performance based on a range you specify; also called a status symbol. You can use the default performance indicators or create an unlimited number of your own.

periodic value method (PVA) A process of currency conversion that applies the periodic exchange rate values over time to derive converted results.

permission A level of access granted to users and groups for managing data or other users and groups.

persistence The continuance or longevity of effect for any Essbase operation or setting. For example, an Essbase administrator may limit the persistence of user name and password validity.

personal pages A personal window to repository information. You select what information to display and its layout and colors.

personal recurring time events Reusable time events that are accessible only to the user who created them.

personal variable A named selection statement of complex member selections.

perspective A category used to group measures on a scorecard or strategic objectives within an application. A perspective can represent a key stakeholder (such as a customer, employee, or shareholder/financial) or a key competency area (such as time, cost, or quality).

pie chart A chart that shows one data set segmented in a pie formation.

pinboard One of the three data object display types. Pinboards are graphics, composed of backgrounds and interactive icons called pins. Pinboards require traffic lighting definitions.

pins Interactive icons placed on graphic reports called pinboards. Pins are dynamic. They can change images and traffic lighting color based on the underlying data values and analysis tools criteria.

pivot The ability to alter the perspective of retrieved data. When Essbase first retrieves a dimension, it expands data into rows. You can then pivot or rearrange the data to obtain a different viewpoint.

planner Planners, who comprise the majority of users, can input and submit data, use reports that others create, execute business rules, use task lists, enable e-mail notification for themselves, and use Smart View.

planning unit A data slice at the intersection of a scenario, version, and entity; the basic unit for preparing, reviewing, annotating, and approving plan data.

plot area The area bounded by X, Y, and Z axes; for pie charts, the rectangular area surrounding the pie.

plug account An account in which the system stores any out of balance differences between intercompany account pairs during the elimination process.

post stage assignment Assignments in the allocation model that are assigned to locations in a subsequent model stage.

POV (point of view) A feature for setting data focus by selecting members that are not already assigned to row, column, or page axes. For example, selectable POVs in FDM could include location, period, category, and target category. In another example, using POV as a filter in Smart View, you could assign the Currency dimension to the POV and select the Euro member. Selecting this POV in data forms displays data in Euro values.

precalculation Calculating the database prior to user retrieval.

precision Number of decimal places displayed in numbers.

predefined drill paths Paths used to drill to the next level of detail, as defined in the data model.

presentation A playlist of Web Analysis documents, enabling reports to be grouped, organized, ordered, distributed, and reviewed. Includes pointers referencing reports in the repository.

preserve formulas User-created formulas kept within a worksheet while retrieving data.

primary measure A high-priority measure important to your company and business needs. Displayed in the Contents frame.

process monitor report Displays a list of locations and their positions within the FDM data conversion process. You can use the process monitor report to monitor the status of the closing process. The report is time-stamped. Therefore, it can be used to determine to which locations at which time data was loaded.

product In Shared Services, an application type, such as Planning or Performance Scorecard.

Production Reporting See SQR Production Reporting.

project An instance of EPM System products grouped together in an implementation. For example, a Planning project may consist of a Planning application, an Essbase cube, and a Financial Reporting server instance.

property A characteristic of an artifact, such as size, type, or processing instructions.

provisioning The process of granting users and groups specific access permissions to resources.

proxy server A server acting as an intermediary between workstation users and the Internet to ensure security.

public job parameters Reusable, named job parameters created by administrators and accessible to users with requisite access privileges.

public recurring time events Reusable time events created by administrators and accessible through the access control system.

PVA See periodic value method (PVA).

qualified name A member name in a qualified format that differentiates duplicate member names in a duplicate member outline. For example, [Market].[East].[State]. [New York] or [Market].[East].[City].[New York]

query Information requests from data providers. For example, used to access relational data sources.

query governor An Essbase Integration server parameter or Essbase server configuration setting that controls the duration and size of queries made to data sources.

range A set of values including upper and lower limits, and values falling between limits. Can contain numbers, amounts, or dates.

reciprocal assignment An assignment in the financial flow that also has the source as one of its destinations.

reconfigure URL URL used to reload servlet configuration settings dynamically when users are already logged on to the Workspace.

record In a database, a group of fields making up one complete entry. For example, a customer record may contain fields for name, address, telephone number, and sales data.

recurring template A journal template for making identical adjustments in every period.

recurring time event An event specifying a starting point and the frequency for running a job.

redundant data Duplicate data blocks that Essbase retains during transactions until Essbase commits updated blocks.

regular journal A feature for entering one-time adjustments for a period. Can be balanced, balanced by entity, or unbalanced.

Related Accounts The account structure groups all main and related accounts under the same main account number. The main account is distinguished from related accounts by the first suffix of the account number.

relational database A type of database that stores data in related two-dimensional tables. Contrast with multidimensional database.

replace A data load option that clears existing values from all accounts for periods specified in the data load file, and loads values from the data load file. If an account is not specified in the load file, its values for the specified periods are cleared.

replicated partition A portion of a database, defined through Partition Manager, used to propagate an update to data mastered at one site to a copy of data stored at another site. Users can access the data as though it were part of their local database.

Report Extractor An Essbase component that retrieves report data from the Essbase database when report scripts are run.

report object In report designs, a basic element with properties defining behavior or appearance, such as text boxes, grids, images, and charts.

report script A text file containing Essbase Report Writer commands that generate one or more production reports.

Report Viewer An Essbase component that displays complete reports after report scripts are run.

reporting currency The currency used to prepare financial statements, and converted from local currencies to reporting currencies.

repository Stores metadata, formatting, and annotation information for views and queries.

resources Objects or services managed by the system, such as roles, users, groups, files, and jobs.

restore An operation to reload data and structural information after a database has been damaged or destroyed, typically performed after shutting down and restarting the database.

restructure An operation to regenerate or rebuild the database index and, in some cases, data files.

result frequency The algorithm used to create a set of dates to collect and display results.

review level A Process Management review status indicator representing the process unit level, such as Not Started, First Pass, Submitted, Approved, and Published.

Risk Free Rate The rate of return expected from "safer" investments such as long-term U.S. government securities.

role The means by which access permissions are granted to users and groups for resources.

roll-up See consolidation.

root member The highest member in a dimension branch.

RSC services Services that are configured with Remote Service Configurator, including Repository Service, Service Broker, Name Service, Event Service, and Job Service.

runtime prompt A variable that users enter or select before a business rule is run.

sampling The process of selecting a representative portion of an entity to determine the entity's characteristics. *See also metadata sampling*.

saved assumptions User-defined Planning assumptions that drive key business calculations (for example, the cost per square foot of office floor space).

scaling Scaling determines the display of values in whole numbers, tens, hundreds, thousands, millions, and so on.

scenario A dimension for classifying data (for example, Actuals, Budget, Forecast1, and Forecast2).

scope The area of data encompassed by any Essbase operation or setting; for example, the area of data affected by a security setting. Most commonly, scope refers to three levels of granularity, where higher levels encompass lower levels. From highest to lowest, these levels are as follows: the entire system (Essbase Server), applications on Essbase servers, or databases within Essbase server applications. *See also persistence*.

score The level at which targets are achieved, usually expressed as a percentage of the target.

scorecard Business object that represents the progress of an employee, strategy element, or accountability element toward goals. Scorecards ascertain this progress based on data collected for each measure and child scorecard added to the scorecard.

scraping An inspection of a data source to derive the most basic metadata elements from it. *Contrast with introspection*.

Search gadget Searches the Reporting and Analysis repository. The Search gadget looks for a match in the document keywords and description, which are set when you import a document.

secondary measure A low-priority measure, less important than primary measures. Secondary measures do not have Performance reports but can be used on scorecards and to create dimension measure templates.

security agent A Web access management provider (for example, Netegrity SiteMinder) that protects corporate Web resources.

security platform A framework enabling EPM System products to use external authentication and single sign-on.

serial calculation The default calculation setting. Divides a calculation pass into tasks and calculates one task at a time.

services Resources that enable business items to be retrieved, changed, added, or deleted. Examples: Authorization and Authentication.

servlet A piece of compiled code executable by a Web server.

Servlet Configurator A utility for configuring all locally installed servlets.

shared member A member that shares storage space with another member of the same name, preventing duplicate calculation of members that occur multiple times in an Essbase outline.

Shared Services Registry Part of the Shared Services database, the Shared Services Registry stores and re-uses information for most installed EPM System products, including installation directories, database settings, deployment settings, computer names, ports, servers, URLs, and dependent service data.

Shared Workspace Page Workspace Pages shared across an organization which are stored in a special System folder and can be accessed by authorized users from the Shared Workspace Pages Navigate menu.

sibling A child member at the same generation as another child member and having the same immediate parent. For example, the members Florida and New York are children of East and each other's siblings.

single sign-on Ability to access multiple EPM System products after a single login using external credentials.

smart slice In Smart View, a reusable perspective of a data source that contains a restricted set of dimensions or dimension members.

Smart Space client software Runs on the client's computer and provides gadgets, instant collaboration and access to the Reporting and Analysis repository. It is composed of the Smart Space framework and gadgets.

Smart Space Collaborator A service that enables users or systems to send messages and share Reporting and Analysis repository content. The message can take many forms, including instant message style discussions, meetings, and toast messages.

smart tags Keywords in Microsoft Office applications that are associated with predefined actions available from the Smart Tag menu. In EPM System products, smart tags can also be used to import Reporting and Analysis content, and access Financial Management and Essbase functions.

SmartBook gadget Contains documents from the Reporting and Analysis repository or URLs. All documents are loaded when the SmartBook is opened so you can access all content immediately.

SmartCut A link to a repository item, in URL form.

snapshot Read-only data from a specific time.

source currency The currency from which values originate and are converted through exchange rates to the destination currency.

sparse dimension In block storage databases, a dimension unlikely to contain data for all member combinations when compared to other dimensions. For example, not all customers have data for all products. *Contrast with dense dimension*.

SPF files Printer-independent files created by an SQR Production Reporting server, containing a representation of the actual formatted report output, including fonts, spacing, headers, footers, and so on.

Spotlighter A tool that enables color coding based on selected conditions.

SQL spreadsheet A data object that displays the result set of a SQL query.

SQR Production Reporting A specialized programming language for data access, data manipulation, and creating SQR Production Reporting documents.

stage A task description that forms one logical step within a taskflow, usually performed by an individual. A stage can be manual or automated.

stage action For automated stages, the invoked action that executes the stage.

staging area A database that you create to meet the needs of a specific application. A staging area is a snapshot or restructured version of one or more RDBMSs.

standard dimension A dimension that is not an attribute dimension.

standard journal template A journal function used to post adjustments that have common adjustment information for each period. For example, you can create a standard template that contains the common account IDs, entity IDs, or amounts, then use the template as the basis for many regular journals.

Status bar The status bar at the bottom of the screen displays helpful information about commands, accounts, and the current status of your data file.

stored hierarchy In aggregate storage databases outlines only. A hierarchy in which the members are aggregated according to the outline structure. Stored hierarchy members have certain restrictions, for example, they cannot contain formulas.

strategic objective (SO) A long-term goal defined by measurable results. Each strategic objective is associated with one perspective in the application, has one parent, the entity, and is a parent to critical success factors or other strategic objectives.

Strategy map Represents how the organization implements high-level mission and vision statements into lower-level, constituent strategic goals and objectives.

structure view Displays a topic as a simple list of component data items.

Structured Query Language A language used to process instructions to relational databases.

Subaccount Numbering A system for numbering subaccounts using non-sequential, whole numbers.

subscribe Flags an item or folder to receive automatic notification whenever the item or folder is updated.

Summary chart In the Investigates Section, rolls up detail charts shown below in the same column, plotting metrics at the summary level at the top of each chart column.

super service A special service used by the startCommonServices script to start the RSC services.

supervisor A user with full access to all applications, databases, related files, and security mechanisms for a server.

supporting detail Calculations and assumptions from which the values of cells are derived.

suppress rows Excludes rows containing missing values, and underscores characters from spreadsheet reports.

symmetric multiprocessing (SMP) A server architecture that enables multiprocessing and multithreading. Performance is not significantly degraded when a large number of users connect to an single instance simultaneously.

sync Synchronizes Shared Services and application models.

synchronized The condition that exists when the latest version of a model resides in both the application and in Shared Services. *See also model*.

system extract Transfers data from an application's metadata into an ASCII file.

tabs Navigable views of accounts and reports in Strategic Finance.

target Expected results of a measure for a specified period of time (day, quarter, and so on).

task list A detailed status list of tasks for a particular user.

taskflow The automation of a business process in which tasks are passed from one taskflow participant to another according to procedural rules.

taskflow definition Represents business processes in the taskflow management system. Consists of a network of stages and their relationships; criteria indicating the start and end of the taskflow; and information about individual stages, such as participants, associated applications, associated activities, and so on.

taskflow instance Represents a single instance of a taskflow including its state and associated data.

taskflow management system Defines, creates, and manages the execution of a taskflow including: definitions, user or application interactions, and application executables.

taskflow participant The resource who performs the task associated with the taskflow stage instance for both manual and automated stages.

Taxes - Initial Balances Strategic Finance assumes that the Initial Loss Balance, Initial Gain Balance and the Initial Balance of Taxes Paid entries have taken place in the period before the first Strategic Finance time period.

TCP/IP See Transmission Control Protocol/Internet Protocol (TCP/IP).

template A predefined format designed to retrieve particular data consistently.

text list In Essbase, an object that stores text values mapped to numeric identifiers. Text Lists enable the use of text measures.

text measure A data type that allows measure values to be expressed as text. In Essbase, a member tagged as "Text" in the dimension where measures are represented. The cell values are displayed as predefined text. For example, the text measure "Satisfaction Index" may have the values Low, Medium, and High. See also typed measure, text list, derived text measure.

time dimension Defines the time period that the data represents, such as fiscal or calendar periods.

time events Triggers for execution of jobs.

time line viewer An FDM feature that allows a user to view dates and times of completed process flow steps for specific locations.

time scale Displays metrics by a specific period in time, such as monthly or quarterly.

time series reporting A process for reporting data based on a calendar date (for example, year, quarter, month, or week).

Title bar Displays the Strategic Finance name, the file name, and the scenario name Version box.

toast message Messages that appear in the lower right corner of the screen and fade in and out.

token An encrypted identification of one valid user or group on an external authentication system.

top and side labels Column and row headings on the top and sides of a Pivot report.

top-level member A dimension member at the top of the tree in a dimension outline hierarchy, or the first member of the dimension in sort order if there is no hierarchical relationship among dimension members. The top-level member name is generally the same as the dimension name if a hierarchical relationship exists.

trace allocations A feature of Profitability and Cost Management that enables you to visually follow the flow of financial data, either forwards or backwards, from a single intersection throughout the model.

trace level Defines the level of detail captured in the log file.

traceability The ability to track a metadata element to its physical source. For example, in Essbase Studio, a cube schema can be traced from its hierarchies and measure hierarchies, to its dimension elements, date/time elements, and measures, and ultimately, to its physical source elements.

traffic lighting Color-coding of report cells, or pins based on a comparison of two dimension members, or on fixed limits.

transformation (1) Transforms artifacts so that they function properly in the destination environment after application migration. (2) In data mining, modifies data (bidirectionally) flowing between the cells in the cube and the algorithm.

translation See currency conversion.

Transmission Control Protocol/Internet Protocol (TCP/IP) A standard set of communication protocols linking computers with different operating systems and internal architectures. TCP/IP utilities are used to exchange files, send mail, and store data to various computers that are connected to local and wide area networks.

transparent login Logs in authenticated users without launching the login screen.

transparent partition A shared partition that enables users to access and change data in a remote database as though it is part of a local database

triangulation A means of converting balances from one currency to another via a third common currency. In Europe, this is the euro for member countries. For example, to convert from French franc to Italian lira, the common currency is defined as European euro. Therefore, in order to convert balances from French franc to Italian lira, balances are converted from French franc to European euro and from European euro to Italian lira.

triggers An Essbase feature whereby data is monitored according to user-specified criteria which when met cause Essbase to alert the user or system administrator.

trusted password A password that enables users authenticated for one product to access other products without reentering their passwords.

trusted user Authenticated user.

tuple MDX syntax element that references a cell as an intersection of a member from each dimension. If a dimension is omitted, its top member is implied. Examples: (Jan); (Jan, Sales); ([Jan], [Sales], [Cola], [Texas], [Actual])

two-pass An Essbase property that is used to recalculate members that are dependent on the calculated values of other members. Two-pass members are calculated during a second pass through the outline.

typed measure In Essbase, a member tagged as "Text" or "Date" in the dimension where measures are represented. The cell values are displayed as predefined text or dates.

unary operator A mathematical indicator (+, -, *, /, %) associated with an outline member. The unary operator defines how the member is calculated during a database rollup.

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	application designer, 8
#Missing strings, suppressing, 53	application partitions. See linked partitions
#NoAccess strings, suppressing, 53	application programming interface, 10
* wildcard character, 84	applications/databases
? wildcard character, 84	Sample Basic, 17, 29, 31, 94
	sample for drill-through, 182
	Sample Interntl, 168
A	Sample Xchgrate, 168
access	applying queries, 78
to databases, 30, 93	ascending sort order
to Essbase data, 30, 93	in drill-through reports, 196
to linked partitions, 158	IN Query Designer, 105
to linked reporting objects, 151	asymmetric reports
to multiple applications, 31	definition of, 107
to multiple databases, 156	pivoting, 108
to online help, 21	retrieving data into, 107
using drill-through reports, 183	Attach Linked Object dialog box, 146, 148, 150
using Essbase commands, 28	attaching reporting objects to cells. See linking
ad hoc reports, 7, 32, 114, 170	attaching to databases. See connecting
Add button, 199	attributes, drill down, 37
add-ins, managing, 18	auditing updates, 161
adding members. See members, adding	auto logouts, 91
adjusting columns. See columns, adjusting width	Auto Sort Rows option, 134
administrators, 8	riate core now option, to r
advanced interpretation engine, 132	
Advanced Interpretation mode, 132, 138	В
aliases	blank
definition of, 63	columns, 111
displaying	rows, 111
process of, 63	blocks, locking data, 159
with member names, 64	Boolean operators, 82, 85
with Query Designer results, 81	
in tables, 63	C
alternate dimensions. See dimensions, alternate	
alternate names. See aliases	Calculation dialog box 162
ancestors, definition of, 14	Calculation dialog box, 162 calculations
AND operators, 82	database status, 162
API, 10	
	databases, 125, 162

dynamic, 125	Change Password dialog box, 32
reducing calculation time, 125	changing
scripts, 162	passwords, 32
specifying latest time period, 128	row and column orientation, 42
substitution variables, 130	spreadsheet format, 55
with Dynamic Time Series, 128	styles, 56
with EssCell, 124	children (defined), 14
canceling data retrievals, 34	Clear All button, 202
Cascade command, 163	Clear button, 202
Cascade Information page, 164	Clear command, 35
Cascade Options dialog box, 164	clearing styles, 62
cascading sheets	click (defined), 22
creating table of contents, 166	client
destination, 164	components, 8
format, 165	software, 17
level of detail, 164	client-server environment, 8
names, 165	collapsing data views. See drill
output type, 164	colors, setting, 56
cell notes	columns
accessing linked, 153	adjusting width, 29, 112
linking to cells, 148	blank, 111
cell ranges	displaying as rows, 42
keeping, 46	displaying selected, 46
removing, 48	filtering by, 101
retrieving, 119	keeping selected, 46
selecting nonadjacent, 47	nested, 36
with drill-through, 187	pivoting, 42
cells	removing selected, 48
accessing linked partitions, 158	retrieving into, 36
applying styles, 56, 60	columns, drill-through
attaching reports. See linking	choosing, 194
attaching URLs. See linking	selecting display order, 194
EssCell function in, 122	selecting for retrieval from relational source, 194
formatting, 56, 60, 147	sorting, 196
in data cells, 60	commands
of dimension members, 59	Calculation, 162
of Dynamic Calculation members, 126	Cascade, 163
of parent members, 56	Clear, 35
formulas in, 111, 113, 116, 122	Connect, 30, 94, 156
linked reporting objects, 145, 149	Currency Report, 167, 171
linking files to, 145	Disconnect, 90
linking notes to, 148	FlashBack, 34
linking URLs to, 149	Keep Only, 46
retrieving a range of, 119	Linked Objects, 145, 149
retrieving single values, 122	Lock, 160
selecting nonadjacent, 47	Member Selection, 83
with nondatabase values, 111	Navigate Without Data, 49, 52
	=

Pivot, 42	comparison operators, 101
Remove Only, 48	displaying, 11, 33
Retrieve, 33	dynamically calculating, 125
Retrieve & Lock, 160	filtering, 100
Send, 160	filtering, in drill-through reports, 202
Undo, 34	formatting, 55
Unlock, 160	locking, 159
Zoom In, 35	missing, 53
Zoom Out, 38	modifying, 159
comparison operators, 82, 101	navigating, 15, 49
compatibility with Smart View, 24	pivoting, 42
concurrent	relational, and drill-through reporting, 173
database access, 31, 156	removing subsets, 48
updates to server, 159	retaining subsets, 46
conditional retrievals, 100	retrieving. See retrieving
Connect command, 30, 94, 156	sorting, 100
Connect icon, 20	unlocking, 160
connecting, 30. See also disconnecting	updating, 159, 161
to a database, 30, 93	data sort order, and drill-through reporting, 196
to a relational data source, 173, 183, 192	data source, relational, 192
to Essbase, 31, 94	databases
to Integration Server, 183, 192	calculating. See calculations
to multiple databases, 156	concurrent access, 31
viewing current connections, 157	connecting. See connecting
Connection Information text box, 157, 162	consolidations, 15
consolidations (defined), 15	defined, 11
conversions, currency, 167	dimensions, 14
creating queries, 71	disconnecting from, 90
creating reports. See reports, creating	linked. See linked partitions
Currency Conversion product, 10	loading, 32, 95
currency conversions	locking, 159
modifying exchange rates, 171	members, 14
reporting, 170	organization, 12
sample databases, 168	outlines, 15
settings, 171	queries. See queries
Currency Report command, 167, 171	restoring previous views, 34
Currency Report dialog box, 171	rules, 12
current time period. See Dynamic Time Series	sample, 29, 168, 182
cursors (Essbase), 33	selecting. See connecting
custom applications, 10	switching, 156
Customize button, 192	viewing connections, 157
customizing drill-through reports, 189	deleting
	filters, in drill-through reports, 202
	selected members, 48
D	styles, 62
data	descendants (defined), 14
calculating, 162	descending sort order
changing orientation, 42	descending soft order

2 1 21 d 1 2 1 2 2 4 100	1 - C 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
in drill-through reports, 196	retain formulas during, 116
with Query Designer, 105	to less detail, 38
Destination Options page, 164	drill-through
destinations	accessing, 174, 183
cascaded sheets, 164	cells, defining styles for, 183
Query Designer queries, 76	described, 173
detaching. See disconnecting	installing, 176
dialog boxes, Help buttons, 22	multiple cell selection, 187
dimensions	multiple reports, 174
alternate, 11	sample
applying styles, 59	database, 182
currency conversion and, 168	drill-through report, 183
described, 11, 14	file, 177, 184
drilling down on, 35, 36	saving filters, 202
drilling up on, 39	styles for cells, 175
naming elements, 14	tutorial guidelines, 177
pivoting, 42	tutorial requirements, 176
disabling data retrieval. <i>See</i> navigating without data	Drill-Through Wizard
Disconnect	dialog box, 193
command, 90	introductory screen, 193
dialog box, 90	duplicate member names
disconnecting	enabling display of qualified member name as
forced logouts, 91	comment, 68
from Essbase, 90	enabling display of qualified member name on
from Integration Server, 204	sheet, 68
discontinuous rows and columns, 47	example scenario, 68
disk space, effect on Dynamic Calculation, 126	qualifed member name, defined, 67
display	working with, 67
options, 55	duplicating sheets. See cascading sheets
order of columns in drill-through reports, 194	Dynamic Calculation members, applying styles to,
	126
Display page (Essbase Options dialog box), 25, 178	
Display Unknown Member option, 113, 115	Dynamic Time Series
displaying data, 11, 33	defined, 128
distributed sheets. See cascading sheets	specifying latest time period, 129, 130
double-clicking	
defined, 22	E
enabling	Edit Cell Note dialog box, 154
for drilling, 23	Edit menu, 35
for linked object browsing, 151, 158, 188, 192	Edit URL dialog box, 156
drag, defined, 22	editing
drag-and-drop operations, 42	cell notes, 153
drill	linked files, 153
by double-clicking, 23	URLs, 155
down on attributes, 37, 38	Enable Hybrid Analysis option in Zoom page (Essbase
down on consolidations, 15	Options dialog box), 25
down to sample of members, 109, 110	enabling
Formula Fill, 116	compatibility with Smart View, 24
	companionity with ornard views, 21

Essbase toolbar, 19	filters
FlashBack setting, 35	in drill-through reports, 202
mouse actions, 23, 151, 158	operators, 200
Navigate Without Data, 49	saving in drill-through reports, 202
Essbase	Find Member dialog box, 84
architecture, 8	finding members, 82, 84
Cascade Options dialog box, 164	FlashBack command, 34
connecting to. See connecting	FlashBack icon, 21
Disconnect dialog box, 90	font
disconnecting from. See disconnecting	formats, 57
intended audience, 8	style list, 57
Member Selection dialog box, 83, 88	Font dialog box, 57
Member Selection dialog box, from Query	forced logouts, 91
Designer, 71	formatted sheets
menu, 19	pivoting in, 114
Options dialog box, 25, 95, 178	retrieving data into, 111
products of, 9	formatting
starting a session, 19	data cells
System Login dialog box, 30, 94	linked objects, 147, 158
toolbar	read-only, 60
described, 20	read/write, 60
installing, 19	dimension members, 59
Essbase Application Programming Interface (API),	displaying aliases, 63
10	displaying aliases and names, 64
Essbase Integration Server drill-through. See drill-	Dynamic Calculation members, 126
through	enabling styles, 58
EssCell function, 122	linked object cells, 147, 158
error messages, 125	options for cascaded sheets, 165
syntax, 123	parent members, 56
Excel	repeating member labels, 65
clearing formats, 35, 62	spreadsheets, 55
mouse actions, 23	text and cell styles, 61
sample tutorial files, 93	Formula Fill option, 116, 118
exchange rates, 168	Formula Preservation mode
Execute button, 192	Formula Fill, 116
executing drill-through reports, 188, 194	pivoting in, 114
expanding data views. See drill down	restrictions with, 114, 116
expanding data views. See drift down expanding formulas when drilling, 117	Retain on Keep and Remove Only, 116
external files, 144	Retain on Retrieval, 113, 116
external mes, 144	formulas
F	EssCell, 122
files	expanding when drilling, 117 in cells, 111, 116
accessing linked, 152	
destinations, cascaded sheets, 164	preservation
linking to data cells, 145	effects on other operations, 116
sample for tutorial, 93	enabling, 113, 116
filtering data, 100	restrictions with, 114

free-form reporting	levels
entering generation and level names in, 138	cascading by, 164
in Advanced Interpretation mode, 132	defined, 15
in Free-Form mode, 134	drilling down, 39
retrieving data, 131	drilling in, 40
Free-Form retrieval mode, 134	entering names, 138
Free-Form retrieval mode guidelines, 134	linked objects
functions. See macro functions	partitions. See linked partitions
	reporting objects. See linked reporting objects
	Linked Objects Browser dialog box, 156, 158, 188,
G	192
generations	LROs, 145
defined, 15	Linked Objects command, 145, 148, 150
entering names in spreadsheet, 138	linked partitions
Global page (Essbase Options dialog box), 23	access privileges, 159
	accessing from spreadsheet, 158
H	cells, applying styles, 158
Help buttons, 22	Linked Reporting Objects
Help, accessing, 21	accessing from spreadsheet, 151
Hybrid Analysis, enabling in the Zoom page (Essbase	applying styles, 147
Options dialog box), 25	cell notes, 148
1	creating, 144
	external files, 145
	URLs, 149
in-cell editing, 23	linking
installation, drill-through, 176	cell notes, 148
installation, toolbar, 19	external files, 145
Integration Server, 10, 173	partitions, 158
Integration Server drill-through. See drill-through	URLs to data cells, 149
Internet, linking cells to URLs, 149	list, cascaded sheets, 166
Interntl sample database, 168	Lock command, 160
	locking data blocks, with multiple users, 159
K	logging
Keep Only command	off of Essbase. See disconnecting
described, 46	on to a relational data source, 192
in Formula Preservation mode, 116	on to Essbase. See connecting
Keep Only icon, 21	on to Integration Server, 192
recep only reon, 21	logging data updates from spreadsheet, 161
	logical operators, 86
L	logouts, forced or auto, 91
labels	logotto, forect of tutto, 71
applying styles, 59	
displaying with aliases, 64	M
entering in spreadsheet, 131, 134	macro functions
member names. See member names	EssCell, 122
repeating, 65	Spreadsheet Toolkit, 9, 22
Latest Time Period option, 129	manual calculation mode, 125
latest time period, specifying, 128	Member Information dialog box, 83

member names	missing values, suppressing, 53
aliases for, 63	disabled, 116
alternate. See aliases	in cascaded sheets, 166
applying styles, 56	option unavailable, 116
displaying with aliases, 64	Mode page (Essbase Options dialog box), 26, 98, 116
entering in spreadsheet, 131, 134	money. See currency conversions
formatted sheets, 111	mouse actions, enabling, 22
indenting, 15	moving
repeating, 65	rows and columns. See pivot
with EssCell function, 123	through worksheets, 49
Member Preview dialog box, 87	multi-cell selection, with drill-through, 187
Member Retention option, 40	multidimensional databases. See databases
Member Selection command, 83	multiple cell selection, with drill-through, 187
Member Selection dialog box, 83	multiple filter conditions, in drill-through reports,
Member Selection icon, 21	200
Member Selection Preview dialog box, 74	
Member Selection, with Query Designer, 71	N.
members	N
adding, 71	names
aliases for, 63	alternate. See aliases
ancestors, 14	applying styles, 56
applying styles, 56, 59	displaying with aliases, 64
children, 14	entering generation, 138
collapsing, 38	entering level, 138
defined, 14	repeating, 65
deleting, 48	Navigate With or Without Data icon, 20
descendants, 14	Navigate Without Data command, 49, 52
deselecting, 89	nested columns or rows, 36
drilling down on, 36	networks, 9
drilling up on, 38	Next Level option, 40, 164
Dynamic Calculation, 125	nonadjacent cells, 47
Dynamic Time Series, 128	notes, linking to data cells, 148
finding, 82, 84	null values, 123
generations, 15	numeric values, preserving, 111
levels, 15	
names. See member names	0
parents, 14	ODBC clients, 10
retaining, 46	OLAP
selecting, 72, 82	defined, 7
siblings, 14	server. See server
menu, Essbase, 19	online analytical processing, 7
messages (Essbase)	online help
database calculation status, 162	displaying for spreadsheet, 21
display options, 115	operators, comparison, 82, 101
EssCell, 125	options
unknown member, 113	Cascade, 164
metadata sampling, 109, 110	Display, 25, 95, 178
~	

Global, 23, 27, 98, 181	preserving formulas, 113, 119
Mode, 26, 97, 116, 179	primary mouse button, 22
settings for advanced tutorial, 95	printer destination, cascaded sheets, 164
settings for basic tutorial, 24	programming interface, 10
settings for drill-through tutorial, 177	
Style, 57	
Zoom, 25, 39, 96, 178	Q
Options dialog box, 25, 178	queries
Options icon, 21	applying, 78
OR operators, 82	applying styles, 79
Order By dialog box, 198	creating, 71
ordering	defining, 69
columns in drill-through reports, 194	deleting, 79
rows in drill-through reports, 196	retrieving, 69
outlines	saving, 76
consolidations, 15	Query Designer
described, 12	applying option settings, 81
dimensions, 14	connecting to multiple databases, 80
Dynamic Calculation members, 125	creating queries, 71
Dynamic Time Series members, 128	data filtering panel, 101
members, 14	data sorting panel, 105
output, cascaded sheets, 164	filtering data, 100
overlapping styles, 62	hint panel, 69
	layout panel, 71
P	messages, 107
	messages and confirmations, 79
parent members	navigation panel, 69
applying styles to, 56	properties panel, 69
defined, 14 Partitioning product. Scalinked partitions	save as query dialog box, 76 sorting data, 105
Partitioning product. See linked partitions	
partitions. See linked partitions	Query Designer icon, 21
passwords	
changing, 32	R
entering, 94	read-only cells, 60
pattern matching, 86	read/write cells, 60
pivot	registering Spreadsheet Add-in, 18
asymmetric reports and, 108 by dragging, 42	relational data source, 192
described, 23, 42	relational databases, accessing using drill-through,
effect on text, 112	173
formatted sheets and, 114	remote databases . See linked partitions
formula preservation and, 114	Remove Only command
rows or columns, 42, 109	described, 48
	in Formula Preservation mode, 116
unavailable, 112	Remove Only icon, 21
without retrieving data, 50 Pivot command, 42	Remove Unselected Groups option, 116
power loss, effect of abnormal shutdown, 91	removing. See deleting
preferences. See options	Repeat Member Labels option, 65
preferences, occ options	

report script commands, 134, 136	functions, 122
reports	increasing speed, 62, 108, 119, 126
ad hoc, 32, 114	into asymmetric reports, 107
ad hoc currency, 170	into columns, 36
asymmetric, 107	into formatted sheets, 111
creating multiple, 163	rules for, 111
formatted, 111	into rows, 36
free-form, 131	less detail, 38
saving, 90	modes, 131
reports, creating	more detail, 35
ad hoc, 32, 170	performance impact, 62, 108, 126
Cascade, 163	range of cells, 119
Member Selection, 82	retaining formulas and, 113, 116
Query Designer, 69	selected cells, 119
reports, drill-through	starting process and, 32
accessing, 183	suppressing data and, 49
customizing, 175, 189	reverting to previous database view, 34
disconnecting from, 204	rows
executing, 188	blank, 111
selecting to view or customize, 189	deleting during pivot, 109
restoring database views, 34	displaying as columns, 42
restrictions, with Formula Preservation, 116	displaying selected, 46
Retain on Keep and Remove Only option, 116	filtering by, 101
Retain on Retrieval option	keeping discontinuous, 47
disabled, 116	nested, 36
enabled, 113, 116	pivoting, 42
Retain on Zooms option, 116, 118	removing selected, 48
retaining	retrieving into, 36
data subsets, 46	sorting within, 105
formulas, 111, 112	suppressing values in, 53, 166
when drilling, 116	
when retaining data, 116	C
when retrieving, 113, 116	S
selected members, 46	sample
Retrieve & Lock command, 160	databases
Retrieve command, 33	connecting to, 31, 168
Retrieve icon, 20	described, 29, 168
retrieving	in drill-through, 182
Advanced Interpretation mode and, 132	files for tutorial, location, 93
canceling, 34	Sample Basic
conditional, 100	connecting to, 31
currency conversion, 167	described, 29
cursors, 33	Sample Data (Zoom In) command, 110
data, 29	sample directory, 93
Dynamic Calculation members, 125	sampling, 109, 110
formula preservation and, 116	Save As command, 90
Free-Form mode and, 134	Save command, 90
	saving

drill-through filters, 202	in drill-through, 196
queries, 76	in Query Designer, 105
worksheets, 90	sorting criteria, 100
saving queries, 76	Spreadsheet Add-in
secondary mouse button, 22	accessing drill-through from, 183
select (defined), 22	compatibility with Smart View, 24
Select Calc Script option, 162	installing toolbar, 19
Select Columns and Display Order dialog box, 194,	logging data updates, 161
195	registering, 18
Select Data Filters dialog box, 199	retrieval cursors, 33
Select Data Sort Order dialog box, 196	starting, 19
Select Drill-Through Report dialog box, 189, 192	users, described, 8
Select Filter Values from the List dialog box, 200	Spreadsheet Toolkit product, 9
selecting	spreadsheets
cells to keep, 46	applying styles, 56
cells to remove, 48	cascading, 163
latest time period, 128	creating multiple, 163
members, 82	data update log file, 161
multiple cells, with drill-through, 187	described, 11
nonadjacent cells, 47	displaying aliases, 63, 64
range of cells for retrieval, 119	displaying member names, 64
Send command, 160	distributing, 163
sending	drilling options, 39
data to server, 159	global options, 23, 35, 115
log file, 161	mode options, 116, 131
server, 8	preserving formulas, 116
changing password, 32	repeating member labels, 65
client-server environment, 8	retrieving data, 29
connecting to, 31, 94	saving, 90
described, 8	setting options, 25
disconnecting from, 90	style options, 56
Essbase Integration Server, 173	suppressing missing and zero values, 53
Essbase Integration Services, 10	zoom options, 40
Essbase Server, described, 8	SQL Interface, 9
logging updates to, 159	starting
name, 31, 94	data retrieval, 33
on network, 9	drill-through, 183
sending data to, 159	Essbase, 19
Set Filter on Column dialog box, 199	Spreadsheet Add-in, 19
shared members, applying styles to, 57	status of database connections, 157
sheet destination, Cascade option, 164	Style page (Essbase Options dialog box), 57
sheets. See worksheets	styles
shortcuts, mouse actions, 23	applying
shortcuts, toolbar icons, 20	to data cells, 60
shutdown, abnormal, 91	to dimension members, 59
siblings (defined), 14	to dimensions, 59
sort order	to drill-through cells, 183

to linked partition cells, 158	tracking data updates, 161
to linked reporting object cells, 147	transaction-level data, accessing with drill-through
to members, 56	173
to parent members, 56	transparent partitions. See linked partitions
to Query Designer results, 81	transport protocol, 9
to shared members, 57	tutorial
clearing, 62	basic tasks, 17
defining, 56, 57	guidelines, 28
hierarchy of, 62	preparing for, 24
overlapping, 62	
removing, 62	
selecting members, 57	U
stored in ESSBASE.INI, 60	underscore characters, suppressing, 55
turning off, 62	Undo command. See FlashBack command
turning on, 58	undoing actions, 34
Subset dialog box, 85, 86	Unlock command, 160
subsets	unlocking data blocks, 160
defining members, 85	up-to-date calculations, 128
removing, 48	Update Mode, 160
retaining, 46	updating
substitution variables, 130, 131	data, 159
suppressing	log file, 161
data retrieval, 49	URLs
	accessing linked, 155
missing and zero values, 53	editing, 155
option disabled, 116 underscore characters, 53	length limits, 151
	linking to data cells, 149
symmetric reports, 107	Use Aliases option, 63
system administrator, 8	Use Both Member Names and Aliases option, 64
system failure, 91	Use Sheet Options with Query Designer option, 81
	Use Styles option, 58
T	user name, entering, 94
table of contents, with Cascade, 166	users, 8
TCP/IP protocol, 9	
terminating database connections. See disconnecting	
termination, abnormal, 91	V
text	V2.x mode, 134
entering free-form, 131	viewing
formatting, 57	active connections, 157
hierarchy of styles, 62	aliases, 63
pivoting. See pivot	aliases and names, 64
preserving formatted, 111	data in spreadsheet, 33
time periods, 128	Dynamic Calculation members, 126
title members, with drill-down, 36	Essbase menu, 19
to-date calculations, specifying, 128	Essbase toolbar, 19
	fewer members. See drill
toolbar (Essbase), 21	linked partitions, 158
icons on, 20	linked reporting objects, 151
installing, 19	- · · · · · · · · · · · · · · · · · · ·

```
more members. See drill
  multidimensional data, 11
  online help, 21
  repeated member labels, 65
  spreadsheet without data, 49
  styles, 58
  toolbar, 19
views, restoring, 34
visual cues. See styles
Visual Explorer
  creating a visual worksheet, 143
  importing visual worksheet data into Excel, 144
  logging into Essbase Server, 142
  user interface described, 141
  Visualize & Explore command, 141
Visualize & Explore command, 141
W
Web resources, linking to data cells, 149
wildcard characters, 84
Windows Registry, changes to, 18
Within Selected Group option, 41, 108
worksheets
  formatting, 55
  navigating without data in, 49
World Wide Web, linking to data cells, 149
X
Xchgrate sample database, 168
Z
zero values
  suppressing, 53, 55
  suppressing options disabled, 116
Zoom commands, customizing, 39
Zoom In command
  drilling down options, 35
  selecting levels, 40
Zoom In icon, 21
Zoom Out command, drilling up options, 38
Zoom Out icon, 21
Zoom page (Essbase Options dialog box), 25, 40
  Enable Hybrid Analysis option, 25
```