## Oracle® Budgeting & Planning

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## **E** Express Programs, Objects and Processes

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## **Send Us Your Comments**

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## **Preface**

The Preface provides you with the following information:

- Content contained in each of the three major sections of the reference guide
- Technology and applications supporting Budgeting & Planning
- Overview of each chapter
- Naming and typographical conventions used
- Customer support

#### **Reference Guide Content**

This guide is divided into three sections. Each section contains information for specific groups of application users.

#### Part I Administering Budgeting & Planning

Part I is for DBAs, System Administrators, and the Super Administrator. This part provides information on the relationship between Express Server, Oracle Financial Analyzer (OFA) and Budgeting & Planning. Also included in this section is information on how to administer the application and how to use the tools and programs provided to enhance the functionality of the application for your organization.

#### Part II Using Budgeting & Planning

Part II is for end users, including the Super Administrator, sub-administrators, and business unit managers. This section of the guide describes how to log in to the application and use the tools provided to perform budget-related tasks.

#### **Part III Appendixes**

Part III is primarily for the Super Administrator and others within your organization who need in-depth information about the programs and architecture of the application.

#### **Applications Supporting Budgeting & Planning**

Applications and technology supporting Budgeting & Planning are included in the following table:

Component	Application	User	
Application database	Oracle Express Server 6.3.0.1	DBA, System Administrator, Super Administrator	
Application database administration	Oracle Express Administrator 6.3.0.1	DBA, System Administrator, Super Administrator, Administrators	
Application server	Oracle Application Server 4.0.8.1	DBA, System Administrator, Super Administrator	
Oracle Financial	Financial Data Manager relational	Database:	
Services Applications (OFSA) components	database, OFSA applications	<ul> <li>DBA, System Administrator, Super Administrator</li> </ul>	
(optional component)		OFSA applications:	
		<ul> <li>Super Administrator, Administrators, Business Unit Managers</li> </ul>	
Web enablement	Oracle Express Web Agent 6.3.0.1	DBA, System Administrator, Super Administrator	
	with patch owa630_p1.exe		
Web access	Browser: Internet Explorer 5.0 or Netscape 4.72 or later	Super Administrator, Administrators, Business Unit Managers, DBA, System Administrator	
	Java plug-in: JInitiator 1.1.7.29		
Business environment set up and configuration	Oracle Financial Analyzer 6.3.0.0 with patch 6325_2.exe	Super Administrator, Administrators, OFA power users	
Budget-related tasks	Oracle Budgeting & Planning	Super Administrator, Administrators, Business Unit Managers	

#### **Budgeting & Planning Naming Conventions and Terminology**

Note the following, general naming conventions and terminology used in this guide.

#### **Planning Item**

The key database structure for Budgeting & Planning is the planning item. In Express this database object is referred to as a variable and in OFA as a financial data item. This guide uses the term planning item, as in Financial Plans planning item, the majority of the time when referring to this database object. Otherwise the term variable is used.

#### **Data Relationships**

Data relationships enable you to group data into meaningful categories. In Express you set up data relationships using a database object called a relation. In OFA this object is called an attribute. This guide uses both terms, depending on whether the usage is in the context of Express or OFA.

#### **Selected Data**

End users retrieve data from the database and access it through the Budgeting & Planning interface using a tool called the Selector. The slice of data an end user selects using this tool is called 'currently selected' data. This data is temporarily stored in such a way that it is accessible during the end user's session.

An additional distinction needs to be made between currently selected data and 'active' data. Active data is the data that the end user actually sees at any point in time in the visible page of the interface. The active data is a subset of the currently selected data.

#### **Chapter Overview**

This section provides a brief content overview for each chapter.

#### Part I Administering Budgeting & Planning

#### **Chapter 1 New Features**

This chapter describes software enhancements for this release.

#### **Chapter 2 The Data Model**

This chapter lays the conceptual foundation for the database design and its internal structure, discussing both the business (logical) model and physical data model.

#### **Chapter 3 Administering the Application**

This chapter presents detailed information on how to set up external users for the Web-enabled version of the application, moving data from the Oracle Financial Data Manager (FDM) relational database to Express, configuring Express and OFA to reflect your business practices and distributing database objects and data throughout the Budgeting & Planning environment.

#### **Chapter 4 Administering Reports**

This chapter provides important information for administrators on how to set up and configure the application environment for report production. It also contains a list of the seeded financial reports provided with the application and detailed formulas used to produce the reports that rely on formula variables.

#### **Chapter 5 Administering Planning Item Access and Programs**

This chapter explains how to augment seeded planning items with user-defined variables by making your user-defined variables accessible through the Budgeting & Planning interface.

#### **Chapter 6 Creating Custom Cash Flow Calculations**

This chapter explains how to incorporate custom cash flow programs that you may create for use in Budgeting & Planning.

#### Chapter 7 Running the LEDGER\_STAT Writeback Procedure

This chapter explains how to prepare your data for the writeback procedure and execute the specific Express program that completes the initial step of moving your data from Express to a staging table in the FDM relational database. From this staging table the FDM LEDGER\_STAT load utility moves data into the LEDGER\_STAT table.

This chapter may be applicable to your budgeting process if you have installed FDM in addition to Budgeting & Planning.

#### **Chapter 8 Setting up the Express Server**

Before end users can use Budgeting & Planning you need to establish connectivity for Express Server and set it in run mode. This chapter describes the steps to perform both tasks.

#### Part II Using Budgeting & Planning

#### **Chapter 9 Logging In**

This chapter describes how to log in to the application and, if necessary, download the required Java plug-in.

#### **Chapter 10 Features of the Main Forecasting Window**

This chapter describes the components of the main forecasting window.

#### **Chapter 11 Functions Available Through the Interface**

This chapter describes key end-user functionality associated with the application. This functionality includes: allocating node-level values to subordinate leaves, distinguishing between the three available calculation routines and how to launch each, using the copy and paste functionality, saving your inputs and calculations, submitting your changes to the database, and accessing the Interest Rate interface.

#### **Chapter 12 Using the Selector**

This chapter describes how to use the Selector tool. This tool retrieves the slice of data from Express that you want to view and work with in either the main forecasting window or other interfaces of the application. The Selector's design includes a structured interface to simplify data selection and a group of tools to retrieve data using filtering criteria and analytical processes.

#### **Chapter 13 Using Input and Calculation Tools**

These tools enable end users to enter data and run budget-related calculations across multiple combinations of organizational units, chart of accounts and other dimensions, in a single operation.

The two interfaces designed to support this feature combine predefined methods for entering and calculating data with point-and-click functionality for data selection.

#### **Chapter 14 Using the Maturity Mix End-User Interface**

Sometimes the default maturity assumptions created by administrators do not accurately reflect the maturity characteristics of a product for a particular organizational unit. This feature gives end users, such as business unit managers, a way of modifying an administrator's assumptions to more accurately reflect the organizational unit's business environment.

This interface is also used by business unit managers and sub-administrators to input maturity characteristics if other administrators have not defined default characteristics.

#### **Chapter 15 Generating Reports**

This chapter explains how end users access and generate financial reports provided with the application, as well as reports created by your organization. This chapter also includes a list of seeded reports provided with the application, along with a description of the basic formats of those reports.

#### **Part III Appendixes**

#### **Appendix A Financial Elements**

This appendix lists the Financial Elements used in Budgeting & Planning, sorted two ways – by alpha-numeric identifier and by description.

#### **Appendix B Cash Flow Calculations**

This appendix presents the logic and mathematical formulas used to calculate cash flow forecasts for anticipated new business, and the combination of those cash flow results with current position data to derive total account results.

#### **Appendix C Express and OFA Object Descriptions**

This appendix lists the correlations between Express and OFA for the following:

- Dimensions
- Relations (Attributes in OFA)
- Planning Items (Financial data items in OFA, variables in Express)

This appendix also lists the Express database objects that are exclusive to the Budgeting & Planning application. These database objects are not found in OFA.

#### Appendix D Details of the Maturity Mix Data Model

Details of the three key variables comprising the maturity mix data model, FS.MIX\_OVERRIDE, FS.MIX\_MAP and FS.MIX\_DEFAULT are presented in this appendix.

#### **Appendix E Express Programs, Objects and Processes**

This appendix lists, in alphabetical order, significant Express programs, objects and processes used in the Budgeting & Planning application.

#### **Product Design for Future Functionality**

In anticipation of future funtionality certain application-related objects have been included in the design for this release but are not functional. The documentation notes this, where applicable by the following:

**Caution:** It is important that you do not modify these objects as changes may cause the functionality that is incorporated in a future release to fail.

#### **Documentation Conventions**

The following documentation conventions are used in this guide:

Symbol	Explanation
<, >	Text enclosed by the these brackets indicates user-defined entries.
	Note that these brackets are intended to designate information you supply; the brackets should not be included in any of your entries.
UPPERCASE	Terms in uppercase denote database objects.
->	This symbol, between menu selections, means that you should follow the sequence of steps provided, such as File -> Save As.
Alt +C	This text identifies the short-cut key strokes that mimic mouse-related actions.
Note, Caution, and	Text introduced with 'Note' provides helpful information.
Warning	Text introduced with 'Caution' indicates an action that could cause serious problems for your system or application environment, including loss of data.
	Text introduced with 'Warning' indicates the possibility of personal injury.

#### **Customer Support Information**

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- Electronic mail to a Virtual Support Analyst
- Telephone support

# Part I

## **Administering Budgeting & Planning**

Part I provides detailed information on how to administer the application.

#### Audience

This section of the reference guide is written for individuals within your organization responsible for configuring and maintaining the application for end users, including:

- DBAs
- System Administrator
- Super Administrator

#### Content

This section includes the following chapters:

- Chapter 1, "New Features"
- Chapter 2, "The Data Model"
- Chapter 3, "Administering the Application"
- Chapter 4, "Administering Reports"
- Chapter 5, "Administering Planning Item Access and Programs"
- Chapter 6, "Creating Custom Cash Flow Calculations"
- Chapter 7, "Running the LEDGER\_STAT Writeback Procedure"
- Chapter 8, "Setting up the Express Server"

## **New Features**

This chapter describes software enhancements for this release and a condensed description of enhancements from Release 4.0.2.

#### Web-Enablement

Release 4.5 marks the introduction of Web-based access for the Oracle Budgeting & Planning solution. Using a Netscape or Internet Explorer Web browser, the typical end user can log in to Oracle Budgeting & Planning and use the organization's intranet to perform budgeting calculations, view and refine results, and submit budgets.

As part of Web enablement, Budgeting & Planning now supports Oracle Financial Analyzer's External user type. Users can also submit their data to their administrator's shared database directly from within Budgeting & Planning. See "Creating External Users" in Chapter 3, "Administering the Application" for more information on External Users and submitting data.

### Reporting in Budgeting & Planning

Effective with the release of the Web-enabled version of Budgeting & Planning, users can now access reports that have been defined in Oracle Financial Analyzer (OFA) directly from the Budgeting & Planning interface. Web users who have received report access through the OFA distribution functionality can open a list of available reports from within the main Budgeting & Planning interface, select the desired report(s), and produce those reports for both viewing and printing. Users now need to launch only one application to enter, calculate, submit, and report on their data.

This release also includes additional, seeded standard reports created specifically for use with the Web-enabled version of the application.

For information on administering reports for the application see Chapter 4, "Administering Reports" and to access and generate reports see Chapter 15, "Generating Reports".

### Input and Calculation Tools

New tools are available to assist users in the creation of initial forecast or budget projections, the adjustment of existing projection values, and to make adjustments to source values while copying from one location in the main Financial Plans planning item to another. Users can take advantage of these tools to generate projections for all data types including balance sheet and non-interest income and expense line items, and can trigger the processing of cash flow and solve calculations based on the generated values. For more information on how to use these tools see Chapter 13, "Using Input and Calculation Tools".

This release also provides the ability to copy and paste data values from a spreadsheet directly into Budgeting & Planning. Values can also be pasted into any planning item accessible through the interface, and calculations subsequently be launched based on the newly pasted values. The ability to copy data values from Budgeting & Planning into a spreadsheet has also been added. For more information on this feature see "Using the Copy and Paste Functionality" in Chapter 11, "Functions Available Through the Interface".

## **Expanded Planning Item Access**

Budgeting & Planning's new catalog-driven approach to planning item access enables administrators to grant end users access to any planning item used in the budgeting cycle. Taking advantage of this capability, access to the forecasted interest rates planning item has been seeded to allow users to view the rate environment being employed in the development of their budget. In addition, administrators can define custom programs and make them available to users by simply maintaining a series of entries in a catalog. See Chapter 5, "Administering Planning Item Access and Programs" for more information.

### **Data Movement Routines**

Administrators have a new data movement routine for writing budget and forecast data back to the FDM relational database LEDGER\_STAT table. The routine writes

data to a staging table after validating the leaves, looking up COMMON\_COA\_ID values, and transforming the information into the format the LEDGER\_STAT load utility requires. For information on exporting data to the LEDGER\_STAT table, see Chapter 7, "Running the LEDGER\_STAT Writeback Procedure".

The interest rate data movement routine has been completely rewritten to accommodate FDM data model changes, improve performance, and to add support for loading currency exchange rates. For more information see "Interest and Exchange Rate Forecasts" in Chapter 3, "Administering the Application".

Changes have been made to all of the remaining data movement routines to accommodate database changes implemented in FDM to support new multi-currency based functionality. The routines also have been enhanced to allow for any FDM leaf field to be mapped and loaded into virtually any dimension in the Express database. See "Data Movement Routines" in Chapter 3, "Administering the Application" for more information on the data movement routines.

#### Software Enhancements for Release 4.0.2

The 4.0.2 patch release to version 4.0 contained many significant improvements. All of the those new features were incorporated into the 4.5 release, including:

- **Full Selector functionality**
- Multiple hierarchy support
- A new Maturity Mix Assumption interface that enables end users to adjust or modify maturity mix assumptions used in the generation of financial projections.

See the appropriate chapters in this reference guide for more information on these features.

Software	Enhancemen	ts for	Release	4 N 2

## The Data Model

The data model is the foundation of the Budgeting & Planning application.

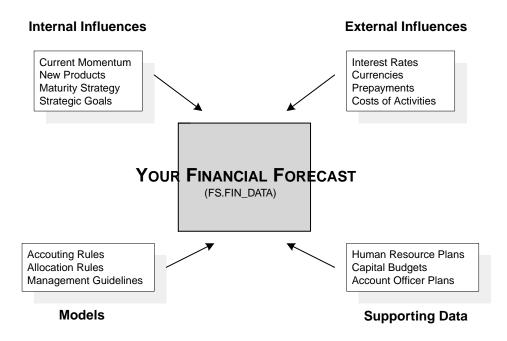
There are two ways of thinking about the data model: The logical data model and the physical data model. The logical data model shows how your organization's budgeting policies, multiple corporate data sources, and external business influences are arrayed around and feed data to a uniform database to create and maintain your budget. The physical data model describes the components of the Express multidimensional database and how these components are organized and structured, within the context of the Budgeting & Planning application, to store and analyze your data.

### **Logical Data Model**

The key to the logical data model is the financial forecast. The illustration that follows shows how a variety of factors such as internal allocation rules, accounting principals, your business strategies, and interest rate fluctuations are assimilated into the budgeting process. At the center of these influences is the financial forecast, where the accumulated data is factored and processed to create your organization's budget. The financial forecast also provides a starting point for creating scenarios that can project the anticipated benefits from introducing a new product or how interest rate fluctuations will impact your institution's profitability.

In the context of the Budgeting & Planning application the financial forecast is termed the Financial Plans planning item or FS.FIN DATA. It is the repository of data results from both budget creation and forecasting.

The following diagram shows the key factors and business influences that were taken into consideration in designing the logical data model for the Budgeting & Planning application.



Each of these components is described in the following sections.

### **Financial Forecast**

The financial forecast is the ultimate destination for all budgets and forecasts. This information is stored in the Financial Plans planning item (FS.FIN\_DATA).

#### Internal Influences

Your organization directly controls internal influences. The base line is current momentum. Current momentum is defined as the budgeting reality if you have done nothing to affect change. This position is useful because it serves as the base line from which events such as new product offerings or customer marketing campaigns can be measured.

The other components associated with internal influences are used to project profitability margins based on the undertaking of specific actions. Included in this is a dimension called Strategy, which enables you to create multiple, independent business strategies from your current momentum or base-line projection.

#### **External Influences**

External influences affect the financial performance of your institution, but they are also beyond your control. Interest rate or currency exchange rate fluctuations, activity costs, and prepayment assumptions are external influences that can be used in the Budgeting & Planning application to create budgets and forecasts.

#### Models

Models are sets of logic such as accounting rules, business allocation rules, or other corporate financial policies that tend to be enterprise-wide and affect how the budget is created. Models can be driven either from the top of your organization down to the lowest organizational unit or from the bottom of your organization upwards.

#### **Human Resource Plans**

Human resource data generally resides in a separate, secure database and is brought into the budgeting process at a summarized level. The Budgeting & Planning application is designed to allow both the top-down allocation of administrative salaries and benefits and the bottom-up projections from business unit managers regarding projected staffing requirements and salary changes.

### Capital Budgets

Capital budgets are budgeting projections for fixed and other assets.

#### Account Officer Plans

Account officer plans can be factored into budget projections to estimate new business growth over your budgetary year. Because the Budgeting & Planning application does not rely on general ledger summarizations of business units but instead can organize instrument level data in any suitable fashion, organizational hierarchies can reflect individual account officers or even the customers they service.

## **Physical Data Model**

The physical data model describes the internal structure of the database, including organizational hierarchies, database objects, calculation engines, and metadata. The physical data model also describes how your organization's data is stored, retrieved, and analyzed.

This data is stored in a database object referred to as a financial data item in OFA, a variable in Express and a planning item in Budgeting & Planning. In this reference guide planning item is the term most commonly used when conveying information to end users. Variable is used most often in the context of application-specific activities for DBAs, System Administrators, or the Super Administrator

The physical data model for Budgeting & Planning is designed with multiple, predefined planning items. These planning items, in turn, are designed to support the primary planning item, which is called FS.FIN\_DATA or the Financial Plans planning item.

### The Financial Plans Planning Item

The Financial Plans planning item (FS.FIN DATA) is the repository for all of your budgeting data. Data residing in this planning item is modified through data movement routines, cash flow engine calculations, feeds from supporting planning items and other calculations your organization defines.

#### Dimensions of the Financial Plans Planning Item

The planning item is seeded with seven pre-defined dimensions. The following table provides the names of these dimensions as they appear in OFA/Budgeting & Planning and Express.

OFA/Budgeting & Planning	Express Name
Chart of Accounts	FS.CHRT_OF_ACCT
Organizational Unit	FS.ORG_UNIT
Time	TIME
Financial Element	FS.FIN_ELEM
Forecast	FS.FORECAST
Strategy	FS.STRATEGY
Currency	FS.CURRENCY

Notice that six of the seven dimensions begin with the letters 'FS'. The only exception is the Time dimension. The prefix 'FS' is the object naming convention established for the Budgeting & Planning application.

Also, all dimension values that, in the previous versions of the Budgeting & Planning application, began with a number now begin with a letter such as 'F' or 'N.' For example, an organizational unit stored as 12345 in FDM is stored as F12345 in Express.

In addition to the seven pre-defined dimensions you can also create a user-defined dimension for the Financial Plans planning item. Refer to the Oracle Financial Services Installation and Configuration Guide for detailed information on creating a user-defined dimension.

> **Caution:** If you plan to create a user-defined dimension, you should create your dimension before your first data load. It is very difficult to successfully add a user-defined dimension after implementing the Budgeting & Planning application.

The seven pre-defined dimensions and the user-defined dimension are described in this table:

Dimension	Description
Chart of Accounts (FS.CHRT_OF_ACCT)	Chart of accounts is the lowest level of detail for planning purposes and includes balance sheet, income statement, and statistical accounts. Chart of accounts is organized following a hierarchical structure that is provided either through the data movement routine from FDM to Express or is set up manually within Express and OFA.
	Hierarchically organized? Yes
Organizational Unit (FS.ORG_UNIT)	With this dimension you represent, in the Express database, the organizational structure of your institution. The organizational structure is created in the database either through data movement routines that move the hierarchical
	structures from FDM to Express or is set up manually within the Express and OFA.  Hierarchically organized? Yes

Dimension	Description
Time	The lowest common denominator or unit of time, for the Budgeting & Planning application, is the month. All time-based measurements are in multiples of months. For example, a 30-year amortizing loan is expressed as 360 months.
	This dimension also enables end users to select the number of historical periods as well as the number of future periods to be tracked in the database.
	Hierarchically organized? Yes
Financial Element (FS.FIN_ELEM)	This dimension contains financial values, such as average balance, ending balance, interest rates, and rate spreads. Financial elements are used primarily in conjunction with balance sheet items.
	Hierarchically organized? No
Forecast (FS.FORECAST)	The Forecast dimension enables your organization to label multiple views of future performance so that each forecast view is maintained independent of other forecasts and your final budget.
	Hierarchically organized? No
Strategy	The Strategy dimension organizes the contents of a forecast by
(FS.STRATEGY)	the plan your organization executes to achieve forecast targets. Strategies are the internal influences that impact future performance.
	Hierarchically organized? Optionally
Currency	Budget balances are represented in the currency you select.
(FS.CURRENCY)	However, in the case of multi-currency budgeting the currencies used for local budgeting activities can be converted and rolled up to a base-line or single currency.
	Hierarchically organized? Optionally

Dimension	Description
Dimension-N	This dimension is user defined and is available to meet unique budgeting requirements for your organization. This dimension is not pre-defined during the installation of the Budgeting & Planning application.
	Hierarchically organized? Optionally

### **Attributes**

Attributes (relations in Express) are the elements that relate one dimension value to another. Attributes give you sorting, grouping, and data filtering capabilities for dimensions values.

When you create relationships between dimension values one value type is called the grouping dimension and the other value type is the called the base dimension. The following example illustrates how dimension values function as attributes to create relationships.

#### Example

In this example, Chart of Account dimension values are grouped by account type. The Chart of Account dimension values are the base dimensions and the account types are the grouping dimensions. The name of this attribute is FS.COA.ACCT\_ TYPE.

Chart of Account	Account Type	
Auto Loans	Asset	
Residential Loans	Asset	
Certificates of Deposit	Liability	
DDAs	Liability	

The grouping dimensions in this example are Asset or Liability. The base dimension consists of the four dimension values under Chart of Accounts.

#### **Pre-Defined Dimension Values**

The Budgeting & Planning application seeds specific dimension values, used as attributes, during the installation process. You can also create additional, user-defined dimension values that function as attributes. It is important, however, not to alter the seeded dimension values.

**Caution:** Do not change the pre-defined dimension values installed with the Budgeting & Planning application. Doing so could cause the application to return inaccurate data.

The next section lists the pre-defined attributes for the following three dimensions in FS.FIN\_DATA:

- **Chart of Accounts**
- **Forecast**
- **Organizational Unit**

## **Pre-Defined Attributes for the Chart of Accounts Dimension**

The following attributes are pre-defined for the Chart of Accounts dimension:

Chart of Accounts Attributes	Description
COA Account Type	The account type includes one of the following characteristics listed. Account types generally indicate how additional data values are computed.
	These are the available characteristics for the Account Type attribute:
	■ Asset
	■ Liability
	■ Capital
	<ul> <li>Direct non-interest income</li> </ul>
	<ul> <li>Allocated non-interest income</li> </ul>
	■ Direct non-interest expense
	<ul> <li>Allocated non-interest expense</li> </ul>
	■ Income taxes
	Statistical: Count
	Statistical: Ratio
	Statistical: Factor
COA Accrual Method	The accrual method determines how interest is accrued on a monthly basis. This information is particularly important in computing either the interest financial element or reporting yields.
	The Budgeting & Planning application supports the following accrual methods:
	<ul> <li>Actual # of days in period/Actual # of days in year</li> </ul>
	<ul> <li>Actual # of days in period/365</li> </ul>
	<ul> <li>Actual # of days in period/360</li> </ul>
	<b>30/360</b>
	■ 30/Actual # of days in year
	<b>30/365</b>

Chart of Accounts Attributes	Description
COA Market Rate	The market rate indicates which interest rate forecast, in the Interest Rate variable, is used as the market index rate for new business and for repricing outstanding balances.
	The Budgeting & Planning application has been designed to allow you to input a spread above or below the market interest rate as well as to input a spread above or below the transfer rate. However, the use of the market rate currently requires custom cash flow model type development.
COA Balance Sheet Model	This model type represents the cash flow template that your organization uses. The standard model types available include:
	<ul> <li>Bullet Fixed</li> </ul>
	<ul> <li>Amortizing Fixed</li> </ul>
	<ul> <li>Amortizing Reprice</li> </ul>
	<ul> <li>Non-interest Income</li> </ul>
	<ul> <li>Non-interest Expense</li> </ul>
	■ Non-term
	■ Non-rate Related
	<ul><li>Rollovers</li></ul>
	<ul> <li>Statistical Data</li> </ul>
COA Product	Bundles two or more accounts into one customer product. An example of bundling is a loan product, checking account, and safe deposit box for a single customer.
	Note that a seeded calculation is currently not in place for this attribute.
COA Transfer Price Method	The transfer pricing methodology indicates how the transfer rate is determined, based on the term and repricing characteristics of the product. The Budgeting & Planning application supports the following methodologies:
	<ul> <li>Zero Coupon</li> </ul>
	<ul> <li>Duration Based</li> </ul>
	<ul> <li>Weighted Average Term</li> </ul>

## **Pre-defined Attributes for the Forecast Dimension**

The following attributes are pre-defined for the Forecast dimension:

Forecast Attributes	Description
FCST Data As Of Date	Use this attribute to define the point in time that divides historical or actual data from forecast data. Note that different forecasts can have different as-of-dates.
FCST Interest Rate Scenario	The interest rate forecast used in calculations.
FCST Currency Scenario	The currency exchange rate forecast used in calculations.
FCST Maturity Mix Scenario	The specific collection of mix assumptions used in cash flow calculations.
FCST Calculation Status	This attribute is a tracking mechanism for scenario changes. It has been designed for functionality planned for a future release.
	To avoid problems during upgrades to a future release, do not change this attribute.
FCST Forecast Status	This structure has been designed for functionality planned for a future release. It will include the following, pre-defined characteristics:
	■ Complete
	■ In Process
	<ul><li>Returned</li></ul>
	<ul> <li>Resubmitted</li> </ul>
	<ul> <li>Approved</li> </ul>
	To avoid problems during upgrades to a future release, do not change this structure.

## **Pre-Defined Attributes for the Organizational Unit Dimension**

There is a single attribute for this dimension, with the following, pre-defined characteristics.

Organizational Unit Attributes	Descriptions
ORG Organizational Unit Type	Core banking
	Support unit
	Overhead unit
	Offset unit
	Funding center
	Wholesale

## **Pre-Defined Attributes for the Report Line Item Dimension**

Report line item supports income statement reporting. The standard reports use this attribute to identify Chart of Account line items included in the reports.

Report Line Item Attributes	Descriptions
RPL Chart of Accounts	Total Assets COA Value
	Total Liabilities and Capital COA Value
	Total Non Interest Income COA Value
	Total Non Interest Expense COA Value
	Loan Loss Provision COA Value

## **Additional Forecast-Related Elements**

This section lists additional variables you need to use to create your budget and forecasts.

## **CUJO - Conjoint Variables**

These are variables dimensioned by a conjoint.

Variable	Purpose
FS.CUJO.DECIMAL1	Stores the data value entered in the user interface.
FS.CUJO.DELETE	This is metadata maintained by the application. This variable indicates whether or not the data has been processed and, if it has been processed, can then be deleted.
FS.CUJO.DECIMAL2	Not used.
FS.CUJO.SPREAD_MTH	Defines the methodology for spreading node-level data to subsidiary leaves.

### **Financial Element Access**

Variable	Purpose
FS.FE_ENABLED	Used by the interface to determine if a financial element is displayed for a cash flow.
FS.FE_WRITEABLE	Determines whether or not a user can change a value for a financial element in the user interface.

#### **Interest Rates**

Variable	Purpose
FS.INTEREST_RATE	This is the interest rate forecast.

## **Maturity Mix Variables**

Variable	Purpose
FS.ME_ENABLED	Used by the interface to determine if a mix element is displayed in the Maturity Mix Assumptions interface.
FS.ME_WRITEABLE	Determines whether or not a user can change a value for a mix element in the user interface.
FS.MIX_DEFAULT	The default Maturity Mix Assumption set.
FS.MIX_MAP	The map of default Maturity Mix Assumption sets to the Chart of Accounts, Time, and Currency dimensions.
FS.MIX_OVERRIDE	Stores maturity mix assumptions input by the end user.

## **Moving Average Rate Information**

Variable	Purpose
FS.WGT_AVG_PER	The number of historical periods used for the moving average transfer pricing method.
FS.WGT_AVG_TERM	The term used for the moving average transfer pricing method.

## **New Business Timing**

Variable	Purpose
FS.NB_TIMING_PCT	Use this attribute to determine when you want new business added to the database.
	If you select 0% for new business timing, new business projections are added on the last day of the month.
	If you select 100%, then new business projections are added the first day of the month, and 50% indicates that new business projections are added in the middle of the month.
	The default value is 50%.
	Note that, while New Business Timing functions as an attribute, it actually is a variable. You need to use an OFA worksheet to edit New Business Timing; you cannot edit values through the OFA Attribute interface.

#### Run Off/Repricing Profiles for New Business

#### Variable **Purpose**

FS.INCR\_RUNOFF

The FS.INCR\_RUNOFF variable stores run off and repricing data for each origination month across time, for each individual organizational unit / chart of accounts combination. The FS.INCR\_RUNOFF variable is dimensioned by:

- Time
- Organizational Unit
- Chart of Accounts
- **Incremental Runoff Financial Elements**
- Strategy
- Maturity Mix Breakout
- Origination Month
- Forecast
- Currency

When a value for new business is entered or calculated for an individual organizational unit / chart of accounts combination in a given month, the future cash flows for that new business are calculated. The calculated run off and repricing balance rate and transfer rate data is written to the FS.INCR\_RUNOFF variable in the particular origination month dimension value in which the new business came in.

The following incremental financial elements are currently calculated (where applicable) and stored in the FS.INCR\_RUNOFF variable:

- Runoff Maturity Balance
- **Runoff Maturity Rate**
- Runoff Maturity Transfer Rate
- Runoff Old Rate
- Runoff Old Transfer Rate
- Runoff New Balance
- Runoff New Rate
- Runoff New Transfer Rate

As an example, suppose you entered a value of 1000 in the New Add Balance Financial Element for January, February, and March for a given organizational unit / chart of accounts combination. Assuming that there is only one mix break out defined, the values written to the FS.INCR\_RUNOFF variable might look similar to the following table.

#### Variable **Purpose**

**Incremental Element: Incremental Runoff Maturity Balance** 

	Time			
Origination Month	January	February	March	April
January		100	100	100
February			100	100
March				100

Once the run off information is calculated and stored, the application totals the balance information across time and writes the sum back to the Financial Plans planning item. It also calculates balance weighted average rates and transfer rates that correspond to the balance totals, and writes those values to Financial Plans.

In the event that a user decides to change the new business assumption for one month, the run off is recalculated only for that month. The data in the other months is not affected. Once the new run off information for the revised month is calculated and stored, the application re-totals the information across time and writes the new sums back to the Financial Plan planning item.

#### **Tax Equivalent Information**

Variable	Purpose
FS.TAX_EQUIV_PCT	This variable is the percentage multiplied against the interest financial element to calculate tax equivalent adjustment balances.

## **Time Aggregation and Annualization**

Variable	Purpose
FS.DAYS_MONTH	Sets the number of days in the monthly time period. This is used to annualize and de-annualize balances.
FS.DAYS_YEARS	Sets the number of days in the year. This is used to annualize and de-annualize balances. This variable makes adjustments for leap year.

#### **Transfer Pricing Accrual Methods**

Variable	Purpose
FS.TP_ACC_METH	The accrual method applied in the calculation of transfer pricing charges and credits.

#### **Transfer Rate**

Variable	Purpose	
FS.COA.TRAN_RATE	The transfer rate indicates which interest rate forecast in the Interest Rate variable is used as the transfer rate for new business and to reprice balances.	
	The Budgeting & Planning application has been designed to allow you to input a spread above or below the market interest rate as well as to input a spread above or below the transfer rate.	
	Note, however, that the use of the market rate currently requires custom cash flow model type development.	

## Weighting Financial Elements

In order for Budgeting Planning to properly rollup and aggregate interest rates, it needs to know the corresponding balances with which to weight the rates. This information is stored in the FS.WEIGHTING\_FE variable.

The FS.WEIGHTING\_FE variable is dimensioned by FS.FIN\_ELEM only and is pre-defined with the following values.

FS.FIN_ELEM	FS.WEIGHTIING_FE
F70	F60
F80	F60
F90	F60
F120	F100
F130	F100
F160	F140
F170	F140
F230	F210
F240	F210
F360	F340
F370	F340
F375	F340
C80	C60
C90	C60
C120	C100
C130	C100
C160	C140
C170	C140
C230	C790
C240	C790
C280	C250
C290	C255
C300	C250
C310	C255

FS.FIN_ELEM	FS.WEIGHTIING_FE
N120	N100
N130	N100
N160	N140
N170	N140
N171	F140
N230	N210
N240	N210
N280	N250
N290	N250
N300	N250
N310	N250
N395	F380
N1395	F1342

## **Interest and Exchange Rate Percentages**

The following three variables and two attributes are used to define a forecast interest rate and exchange rate scenario:

Variables	•	FS.INTEREST_RATE
		FS.COA.TRAN_RATE
		FS.EXCHANGE_PCT
Attributes		FCST Interest Rate Scenario
		FCST Currency Scenario

#### **FS.INTEREST RATE Variable**

The Interest Rates variable (FS.INTEREST\_RATE) houses your interest rate forecasts. This is not to be confused with the actual customer rates assigned to rate-related assets and liabilities. Rather it contains both external market rates (Treasury Bill rates, Prime, LIBOR, and so forth) as well as centrally administered rates (such as your transfer rate curve). This separation allows you to easily swap different interest rate environments in and out of your forecasts.

The variable FS.INTEREST\_RATE is dimensioned by the following:

Dimension	Description
FS.RATE_TERM	The term to maturity (in other words, the point on the yield curve). These dimension values are predefined with values of T.001 through T.360, representing 360 monthly terms.
	Note: Do not alter these in anyway.
	It is not necessary to populate a value for each term. The application interpolates points on the yield curve for which you do not have a value, using a straight-line interpolation method.
TIME	The time period. This is the same Time dimension as found in the Financial Plans planning item.
FS.RATE_SCENARIO	The interest rate scenario name. You can have as many different interest rate scenarios as you would like.
FS.INT_RATE_TYPE	The market or internally administered interest rate code, such as LIBOR, Prime, or the transfer pricing yield curve.

#### FS.COA.TRAN RATE Variable

COA Transfer Rate Type is used to map values of the FS.INT\_RATE\_TYPE dimension to Chart of Accounts line items. This variable is dimensioned by the following:

Dimension	Description
FS.CHRT_OF_ACCT	This is the lowest level of detail for planning purposes and includes balance sheet, income statement, and statistical accounts.
FS.CURRENCY	Budget balances are represented in the currency you select. However, in the case of multi-currency budgeting the currencies used for local budgeting activities can be converted and rolled up to a base-line or single currency.

COA Transfer Rate Type (FS.COA.TRAN\_RATE) is used to assign interest rate code values to Chart of Account line items. In previous releases, this assignment was performed by defining an attribute that had the same name.

To populate this variable, create an OFA worksheet and populate the individual cells with the appropriate values from the Interest Rate Type dimension (FS.INT\_ RATE\_TYPE).

#### **FS.EXCHANGE PCT Variable**

The Exchange Percentages variable houses your exchange rate forecasts used in multi-currency based budget and forecast reporting.

The Exchange Percentages variable is dimensioned by the following:

Dimension	Description
From Currency	In converting currency values for reporting purposes, the currency denomination from which values are being converted.
To Currency	In converting currency values for reporting purposes, the currency denomination to which values are being converted.
TIME	The time period. This is the same time dimension as found in the Financial Plans planning item.
Currency Scenario	The currency exchange rate scenario name. You can have as many different currency exchange rate scenarios as you would like.

### **Attributes for Interest and Exchange Rate Percentages**

In addition, two attributes (relations in Express) exist that connect your forecasts to an interest rate environment. They are:

Attribute	Description
FCST Interest Rate Scenario	This is an attribute between the interest rate forecast and the forecast dimension associated with the Financial Plans planning item. This attribute indicates which rate environment should be used for the forecast scenario you are processing.
FCST Currency Scenario	This is an attribute between the exchange rate forecast and the Forecast dimension associated with the Financial Plans planning item. This attribute indicates which exchange rate environment should be used for the Forecast scenario you are reporting on.

## Maturity Mix Data Model for New Business

This section presents the data model for storing maturity mix and pricing spread information for the new business components of cash flow processing. For detailed information on the Maturity Mix data model see Appendix D, "Details of the Maturity Mix Data Model".

#### **Business Requirements**

As you define your maturity mix for your products, keep these key points in mind:

- Optionally define one default maturity mix and pricing spread forecast for each product and apply that forecast to all organizational units.
- Encourage your end users to modify the default mix percentages and spreads, when necessary, to reflect their cost center's particular business mix.
- Administrators have the option of creating multiple maturity mix scenarios to support strategy development.

#### Creating a Maturity Mix Scenario

Creating maturity mix assumptions for your products is one of the first steps towards creating a budget. A maturity mix scenario is a collection of one or more assumption sets. The combination of these assumptions sets over all future time periods for all products constitutes a maturity mix scenario.

An assumption set is a collection of terms, mix percentages, pricing spreads (optional), and other applicable maturity characteristics that apply to a product for a given time period.

> **Note:** An assumption set includes a complete set of maturity and pricing spread information.

Your maturity mix forecast is created when you have defined all of the assumption sets for a product. This becomes the default maturity mix forecast for that product.

#### Distributing Default Maturity Mix Forecasts and Data

You create the default maturity mix forecasts in the Super Administrator's personal database and distribute it to the shared database and any sub-administrator databases. The maturity mix forecasts are then accessed by the business unit managers, who input forecast data and then submit their results to the shared database.

Business unit managers may want to modify the default mix percentages, spreads, or other maturity characteristics of an assumption set for a particular product. If they do, these modified assumptions are stored in an "override" variable and then

are submitted to the shared database. See Chapter 14, "Using the Maturity Mix End-User Interface" for additional information on inputting values in this variable.

#### **Time Values**

Time values are always represented in months. For example, a 30-year adjustable rate mortgage that reprices every three years appears in the interface with a term of 360 months and a repricing frequency of 36 months.

#### **Process**

This section provides a detailed explanation on how default maturity mix information and modifications to the default information are stored in the database.

The Budgeting & Planning application accesses the variables FS.MIX\_OVERRIDE and FS.MIX\_DEFAULT for maturity mix forecasting. FS.MIX\_OVERRIDE stores modifications entered by business unit managers and FS.MIX\_DEFAULT stores the default assumption set(s) for each product.

The application checks FS.MIX OVERRIDE first, for modified values entered by an end user. If none are found (Null), then values from FS.MIX DEFAULT are used.

For spreads, if MIX DEFAULT is also empty (Null), then values input to Financial Elements for New Add Spread (for cash flow accounts) or Average Spread (for non-term accounts) are used.

**Note:** If you have defined a spread value in MIX\_DEFAULT or MIX OVERRIDE and then try to enter a value for spread in the Spread Financial Element, date(s) in MIX DEFAULT and/or MIX OVERRIDE will replace any value entered in the interface when calculations are run.

The following table shows how data for an assumption set is stored in the FS.MIX DEFAULT variable.

This example illustrates an assumption set with three mix breakout dimension values (MIX.1, MIX.2 and MIX.3) and three maturity mix element dimension values (term, mix percentage, and spread).

Maturity Mix Characteristics (FS.MIX_ELEMENT)	Breakout (FS.MIX_BREAKOUT)		
	MIX.1	MIX.2	MIX.3
Mix Percent	10	20	70
Term	6	12	18
Spread	3.00	2.00	1.00

This is a simplified example, with a complete assumption set consisting of only nine cells. As administrators add more dimension values to the Mix Breakout dimension, the number of cells increases. Note that 10 mix breakout dimension values are pre-defined with the variable. If you need more, you can create them in OFA. Also, complex products such as repricing instruments require additional values in the maturity mix characteristics dimension, which also increases the number of cells in the assumption set.

#### The FS.MIX\_DEFAULT Variable

This is a dense variable storing all the default mix assumption sets.

This variable is dimensioned by the following three dimensions:

- FS.MIX\_ASSUM\_SET
- FS.MIX\_BREAKOUT
- FS.MIX\_ELEMENT

The following table lists the dimension values for FS.MIX\_ELEMENT:

Dimension Value	Required/ Optional	Description
TERM	Required	The length, in months, of the term to maturity for one corresponding breakout.
MIX.PERCENT	Required	The mix percentage for this term number

Dimension Value	Required/ Optional	Description
SPREAD	Optional	The spread for this individual term number
REP.FREQ	Optional	The repricing frequency, in months
AMORT.TERM	Optional	Amortization term length for balloon maturities, in months
RES.VAL.PERCENT	Optional	Residual value percentage
PREPAY.METHOD	Optional	The following prepayment methods are available:
		■ NA for none
		■ 1 for CPR
		■ 2 for PSA factor
		■ 3 for a monthly prepayment spread
PREPAY.VALUE	Optional	The value for the particular prepayment method
RATE.DECREASE.PERIOD	Optional	The maximum percentage the rate can decrease each repricing period
RATE.INCREASE.PERIOD	Optional	The maximum percentage the rate can increase each repricing period
RATE.DECREASE.LIFE	Optional	The maximum percentage the rate can decrease over the life of the product
RATE.INCREASE.LIFE	Optional	The maximum percentage the rate can increase over the life of the product
RATE.CAP.LIFE	Optional	The maximum rate for the life of the product
RATE.FLOOR.LIFE	Optional	The minimum rate for the life of the product
TEASE.DISCOUNT	Optional	Tease discount percentage

The administrator can create assumption sets or load assumption sets from the relational database. All default assumption sets are stored in FS.MIX\_DEFAULT. See "Mix Element Dimension" in Chapter 14, "Using the Maturity Mix End-User Interface" for additional information on the values in the Mix Element dimension.

#### The FS.MIX MAP Variable

The FS.MIX\_MAP variable stores the assignment of mix assumption sets to products over time.

This variable is dimensioned by the following:

- **TIME**
- FS.CHRT\_OF\_ACCT
- FS.MIX\_SCENARIO
- FS.CURRENCY

Using this variable, an administrator can specify a particular assumption set for product (the value in FS.CHRT\_OF\_ACCT) across any time bucket(s) (the value in TIME), across maturity mix scenarios (the value in FS.MIX\_SCENARIO), and across currencies (the value in FS.CURRENCY).

#### The FS.MIX OVERRIDE Variable

This is a typically sparse variable containing information, entered by a business unit manager, that differs from the default maturity mix and pricing spread assumptions. In addition to FS.MIX BREAKOUT and FS.MIX ELEMENT, this variable is dimensioned by TIME, FS.CHRT OF ACCT, FS.ORG UNIT, FS.MIX SCENARIO, FS.STRATEGY, FS.CURRENCY and any user-defined dimensions, if applicable.

If business unit managers make no changes to the default maturity mix and pricing spread assumptions, this variable is populated with null or NA values.

#### Administrative Processes

Administrators store system-wide maturity mix assumption sets in the FS.MIX\_ DEFAULT variable. The administrator can create assumption sets or load assumptions sets from the relational database. For more information on loading maturity mix assumption sets from FDM, see the section entitled "Maturity Mix Assumptions" in Chapter 3, "Administering the Application". Maturity mix Assumption sets are assigned to chart of account values in the FS.MIX\_MAP variable.

#### Locating the Particular Assumption Set During Cash Flow Processing

When an end user inputs a value and performs a cash flow calculation on that value, the interface goes through a series of steps to determine the appropriate mix assumption set to use.

The Budgeting & Planning application first checks the FCST Maturity Mix Scenario (FS.FCST.MIX SCN) attribute to determine which maturity mix scenario to use for the particular forecast in which the value was input. Given the maturity mix scenario, the application queries the Mix Map variable, using the value in the variable for the time period, chart of accounts and currency in which the value was input. The result of the query on the variable returns the value of the FS.MIX\_ ASSUM SET dimension that Budgeting & Planning uses to find the default mix assumptions.

Then the application checks for any overrides to the default assumption set by querying the FS.MIX\_OVERRIDE variable using the time period, chart of accounts, organizational unit, currency, and strategy in which the value was input.

For any values of the mix assumption set in the override variable that are null or NA, the application next queries the FS.MIX\_DEFAULT variable using the mix scenario, currency, and chart of accounts in which the value was input.

The result of the query on FS.MIX\_OVERRIDE and FS.MIX\_DEFAULT comprises the complete maturity mix assumptions the cash flow calculations use to generate account results.

If values for the Spread MIX ELEMENT dimension value exist in FS.MIX DEFAULT and/or in FS.MIX OVERRIDE, these values are displayed and written to the New Add Spread financial element (cash flow account). If there are null or NA values in both variables, then the inputs to the New Add Spread financial element or the Average Spread financial element (non-term account) in the Budgeting & Planning interface are used.

#### Required Steps for Creating a Default Maturity Mix Scenario

Two steps are required to create a default maturity mix forecast for each value of the Chart of Accounts dimension.

First, create (or load) an assumption set into the FS.MIX DEFAULT variable.

Second, assign that assumption set to the chart of accounts value by populating the FS.MIX MAP variable. Optionally, users can modify the default maturity mix assumptions by populating values in the FS.MIX\_OVERRIDE variable.

An alternative to creating a default Maturity Mix scenario is to not define the defaults at the administrator level and require end users to input assumptions in the Maturity Mix Assumption interface.

#### **Cash Flow Processing Error**

In the event that no maturity mix assumptions have been defined, a dialog box appears informing the end user that cash flow calculations cannot be run until a complete maturity mix forecast has been defined (in either the FS.MIX\_DEFAULT variable or the FS.MIX\_OVERRIDE planning item).

## **Extended Definition Planning Items**

The following planning items have been designed and incorporated in this release for planned future functionality.

Caution: To avoid problems during upgrades to future releases of the Budgeting & Planning application, do not modify these financial data items.

Planning Item	Description		
Activity Units	This planning item includes the following dimensions:		
	<ul><li>Activity</li></ul>		
	<ul> <li>Organizational Unit</li> </ul>		
	■ Forecast		
	<ul><li>Currency</li></ul>		
	Strategy		
Activity Factors	This planning item contains the same dimensions as Activity Units		
Activity Costs	This planning item contains the same dimensions as Activity Units		

Planning Item	Description		
Capital Expenditures	This planning item provides data related to fixed assets, such as buildings or equipment, and includes the following dimensions:		
	■ Time		
	<ul> <li>Organizational Unit</li> </ul>		
	■ Financial Element		
	■ Forecast		
	<ul><li>Currency</li></ul>		
	■ Strategy		
	<ul> <li>Capital Asset</li> </ul>		
Employee Information	This planning item contains salary and benefit information that will be used in the budgeting process. The following dimensions are planned for this planning item:		
	■ Employee Info		
	■ Forecast		
	<ul><li>Currency</li></ul>		
	■ Strategy		
	■ Employee		

# **Administering the Application**

This chapter describes changes in the way end users interact with the shared database, which have implications for administering the application, and the necessary processes that prepare Express for a planning cycle.

This chapter presents the following topics:

- **Creating External Users**
- **Database Preparation Overview**
- **Data Movement Routines**
- **Time Dimension Management**
- **Establishing Attributes**
- Forecast Management
- **Maturity Mix Information**
- **New Business Timing**
- Controlling Which Financial or Mix Elements Appear in the Interface
- Setting Read-Only and Read/Write Parameters
- **Transfer Pricing Accrual Methods**
- Distributing Express Database Objects and Data

## **Creating External Users**

This release of Budgeting & Planning supports External Users defined with Oracle Financial Analyzer (OFA). External Users have access to data entry forms used in

OFA Web Client to collect budget or forecast values, which are written to an EIF file and sent to the Task Processor for submission to the shared database. External Users also have access to reports in the OFA Web Client interface that have been defined and distributed to them using the OFA client/server application.

#### Saving to the Shared Database

Budgeting & Planning employs the same approach as the OFA Web Client interface in saving data to the database.

As part of Web enablement, end users accessing the Budgeting & Planning interface attach a copy of the shared database on a read-only basis rather than attaching to a personal databases. When end users generate results in the interface and then save those results the application creates an EIF file, which is sent to the Task Processor queue for submission to the appropriate shared database.

#### Viewing Data from Personal Databases in the Interface

If you are upgrading from a previous version of the application, it is not necessary to delete previously defined Budget workstation users.

Any valid user created in OFA can log into and use the Budgeting & Planning interface, provided that database structure objects have been distributed to that end user appropriately. In other words, OFA users can successfully run Budgeting & Planning in the Web environment. However, these end users need to recognize that any results generated using the Web-enabled version of Budgeting & Planning are submitted to the shared database only and not directly to their personal workstation databases.

**Note:** Prior to using the Web-enabled version of the application, end users should submit any data residing in their personal workstation database to the shared database in order to view that data in the Budgeting & Planning interface.

### **Functionality Enhancements to the Application**

Browser-based access along with the other functionality enhancements included in this release of Budgeting & Planning enable the majority of end users to perform their budgeting tasks using just the Budgeting & Planning interface. In previous releases end users were required to use OFA to populate worksheets, run and print reports, accept distributions, and create submissions. With this release, end users can either perform these tasks directly from within the interface or no longer need to perform them.

If your organization has a subset of end users, such as power or analytical users, who want to continue using OFA you can support the continued use of Budget workstations. However, these users must create budget and forecast data submissions to the appropriate shared database for their values to be consolidated.

#### Recommendation for Creating Budgeting & Planning Users

Oracle recommends that all new Budgeting & Planning users be created as External Users.

Creating External Users minimizes the potential for confusion arising from the existence of personal Budget workstation databases. If Budget workstations are created, data generated using Budgeting & Planning is submitted to the shared database only. In order for changes originating in Budgeting & Planning to be visible in an end-user's workstation database, the administrator must perform an OFA data distribution from the shared database to the personal database.

The following table compares parameters for structure and database access associated with workstation/user.

	Administrator	Budget	External
Personal database with structure	X	X	
Personal database with data	X	X	
Associated shared database	X		
Can attach to shared read-only	X	X	X

#### **OFA Metadata**

This release of Budgeting & Planning continues to maintain complete OFA metadata for the Express data model and associated objects, ensuring consistency in presentation whether using the Budgeting & Planning Java interface or the OFA interface.

# **Database Preparation Overview**

Summarized in the following table are the processes and routines you need to follow to prepare the database. Each of these steps are described in detail in this chapter.

Before you run these steps you must have Oracle Express, OFA, and Oracle Budgeting & Planning installed on your system.

Sub-Steps (if applicable)		
FS.LOAD_HIER		
<ul> <li>Chart of Account leaves and hierarchies</li> </ul>		
<ul> <li>Organizational Unit leaves and hierarchies</li> </ul>		
FS.LOAD_DATA		
<ul><li>LEDGER_STAT</li></ul>		
<ul> <li>RES_DTL_XXXXXX (Risk Manager results table)</li> </ul>		
<ul> <li>Interest and Exchange Rates</li> </ul>		
<ul><li>MATURITY_AUXILIARY (Maturity mix)</li></ul>		
Chart of Accounts		
Forecast		
Report Line Item		

## **Data Movement Routines**

If you are using FDM as the source of your data, it is necessary to move your hierarchical structures, table-specific data, and forecasts and assumptions from FDM to Express.

Three categories of data movement routines have been created for this purpose:

Category 1	Hierarchies	Movement of your organizational and chart of account hierarchies from FDM to Express.
Category 2	Data Movement	Movement of data from the LEDGER_STAT and Risk Manager RES_DTL_XXXXXX tables to seeded planning items created in Express during the data creation process.
Category 3	Assumptions	Movement of maturity mix assumptions and interest and exchange rate forecasts that you create in FDM.

**Note:** The data movement routines are launched from Express Administrator, using command line entries. The individual(s) in your organization who is responsible for running these routines needs to be proficient in Express language.

This proficiency is necessary to customize the command line entries for these routines as your business environment changes.

## **FDM Leaf and Express Dimension Compatibility**

It is important to understand that the key fields or leaves that are used in FDM and the dimensions that are used in Express can either exist simultaneously, in both databases, or exist separately. There does not have to be a one-to-one relationship between an FDM leaf and an Express dimension.

The following illustrates this principal:

Dimension Occurring Only in FDM		Dimensions Occurring in FDM and Express		Dimensions Occurring Only in Express	
•	GL_ACCOUNT_ID	•	BP_COA_ID*	•	CURRENCY
•	COMMON_COA_ID	•	TIME**	•	STRATEGY
•	OTHER (User defined)	•	FIN_ELEM_ID	•	FORECAST
•	CONSOLIDATION_CD	•	ORG_UNIT_ID	•	DIM-N (User defined)

<sup>\*</sup>BP\_COA\_ID is an example of user-defined leaf field in FDM and, therefore, may have a different name. Regardless of the name, it is the leaf used to represent the planning chart of accounts. In the Budgeting & Planning application, this dimension is called FS.CHRT\_OF\_

## **Executing the Data Movement Routines**

Through data movement routines in Express, the sets of data listed in the following table are transferred from FDM to Express.

Data Movement Category	Description	Routine/Sub-routine
Hierarchies	Primarily the hierarchical structure of your organizational units and chart of accounts.	FS.LOAD_HIER
Data movement	Data associated with the following tables:  LEDGER_STAT  RES_DTL_XXXXXX	FS.LOAD_DATA
Assumptions	Assumptions created in FDM that are components of cash flow calculations. These include the following:	FS.LOAD_DATA
	<ul><li>Interest and exchange rate forecasts</li><li>Maturity mix assumptions</li></ul>	

<sup>\*\*</sup>Time is not typically treated as a leaf value in FDM because it is physically stored in buckets (columns within a record). However, it can be thought of as an identifier within the relational database and, therefore, is treated as a dimension.

The description of each of these routines includes the following:

- Purpose of each routine
- Sample call in Express
- Key actions of the routine

### **Prerequisites to Running Your Routines**

Note the following before running your data movement routines:

- Run FS.LOAD\_HIER and FS.LOAD\_DATA from Express Administrator
- Attach the Super Administrator database and FSBPTOOL and FSLANG prior to running the data movement routines
  - Attach the OFA Super Administrator database first and attach this database read/write
  - Attach the FSBPTOOL and FSLANG databases read-only

### **Loading Hierarchies**

Both FDM and Express rely heavily on hierarchical structures to perform their functions. To ensure consistency and eliminate redundant efforts the FS.LOAD HIER routine provides a means of transferring your data from FDM to Express. The essential structures created in FDM are the organizational units and chart of accounts. However, additional hierarchies can be constructed in FDM to organize user-defined leaves. These structures can also be transferred.

The hierarchy data movement routine reads data primarily out of the OFSA IDT ROLLUP table, for the given system identification number of the desired Tree Rollup ID. The balanced FDM Tree Rollup ID is converted into an unbalanced OFA hierarchy. As the Tree Rollup ID values are recreated in OFA as dimension values, the prefix letter 'F' is appended to the value. When OFA hierarchies are refreshed using the hierarchy data movement routine, leaves which have been deleted or orphaned in FDM become unassigned or available (OFA's equivalent of orphans) in the OFA hierarchy.

#### **Balanced and Unbalanced Trees**

A key difference between FDM and Express in treating hierarchies is the requirement, essential to FDM, that trees be balanced. This means that all nodes of a tree in FDM must go down to a common level. Therefore dummy or placeholder nodes are employed to retain this balanced structure. In Express, balanced trees are

not a requirement. During the data movement routine, nodes with the same value are collapsed into a single node on the tree.

#### **Parameters**

The call statement and parameters for the FS.LOAD\_HIER routine are:

Call Fs.Load\_Hier(<user>/<password>@<dbname>, ofadimname, sysidnum, [ORPHANS] <HI.ENTRY VALUE>)

The parameters are detailed in the following table:

Parameter	Description
ofadimname	OFA dimension name. This is the dimension whose values are populated by the routine. Usually the dimensions are FS.CHRT_OF_ ACCT or FS.ORG_UNIT.
sys_id_num	This is the Oracle Financial Services Applications (OFSA) system ID number and is the unique identifier in FDM that identifies the hierarchical structure you want to transfer.
<user>/<password>@<dbname></dbname></password></user>	This is the OCI ConnectString, which is the relational database user name and password that allows access to FDM. It is provided in the following format: <user>/<password>@<dbname>.</dbname></password></user>
	Note that user, password, and dbname are never stored so each must be specified on each execution of FS.LOAD_HIER.

Parameter	Description
ORPHANS	This is a flag that indicates whether or not to transfer orphan leaves. Orphan leaves are leaves without an associated node level point in the hierarchical structure.
	If you do not want to transfer orphan leaves, replace ORPHANS with NOORPHANS.
	If you exclude this parameter, the default is to exclude orphans, essentially running the routine as though you had entered the parameter as NOORPHANS.
HI.ENTRY VALUE	This argument must be populated when the destination dimension has multiple hierarchies.
	An HI.ENTRY dimension value is the OFA-generated identifier for an individual hierarchy.
	To find an HI.ENTRY value use the Report command in Express Administrator and enter a command such as:
	report w 80 HORG.DESC
	where ORG is the dimension prefix for organizational unit.

#### Sample Call

The following is an FS.LOAD\_HIER sample call based on the parameters provided:

Call fs.load\_hier('OFSADEMO/password@DEMODB','FS.CHRT\_OF\_ACCT','102418', 'NOORPHANS','HI.AA1234')

In the above sample call the FS.CHRT\_OF\_ACCT dimension is populated with values found in the OFSADEMO database with the SYS\_ID\_NUM of 102418.

> **Note:** The record in the Catalog of IDs corresponding to the SYS\_ ID\_NUM indicates the type of leaf (organizational unit, product, or other) that this hierarchy contains.

#### Key Actions for the FS.LOAD\_HIER Data Movement Routine

Step	Action	
Step 1	Queries OFSA_CATALOG_OF_LEAVES table	
Step 2	Queries OFSA_CATALOG_OF_IDS for the given SYS_ID_NUM	
Step 3	Loads the hierarchy for the given SYS_ID_NUM from OFSA_IDT_ROLLUP	
Step 4	Loads top rollup level from OFSA_NODE_DESC	
Step 5	Parses hierarchy by removing repeated nodes from balanced tree to make a natural hierarchy	
Step 6	Adds new leaf and node values and, optionally, adds orphan values to the dimension. The supplied prefix letter is prepended to the original values when added to the dimension except for those dimensions marked in FS.DM.CATALOG for Currency Code Translation logic, which does not prepend a character code to values upon load.	
Step 7	Recalculates hierarchy structure and sequencing	
Step 8	Populates any blank dimension value descriptors from OFSA_LEAF_DESC and OFSA_NODE_DESC	

## **Refreshing Hierarchies**

As you add or delete either leaf or node values in your FDM Tree Rollup IDs, you may want to refresh or reload those modified Tree Rollup IDs into your OFA hierarchies. To refresh a hierarchy, issue the same call used to load the hierarchy in the first place.

**Caution:** If you have multiple hierarchies for the same dimension, be sure you specify the exact HI.ENTRY value for the hierarchy you want to refresh.

The following chart outlines the refresh logic of the hierarchy data movement routines.

If the following occurs on a source FDM Tree Rollup ID	The data movement routine performs the following maintenance on the OFA hierarchy
An existing leaf value was orphaned.	The value has its former parentage stripped and it becomes an 'available' or unassigned value in the OFA hierarchy.
An existing leaf value was deleted.	The value has its former parentage stripped and it becomes an 'available' or unassigned value in the OFA hierarchy.
An existing node has all of its leaves reassigned to other nodes, orphaned, or is deleted.	The former parentage of an existing node is stripped and the node becomes an 'available' or unassigned value in the OFA hierarchy.
	Note that any data which had been rolled up to that node still exists. However, since the node no longer exists in the hierarchy all the data associated with that node is excluded from any subsequent database solve routines.
A childless node is created.	The value is ignored if you use the 'NOORPHANS' option. The value comes over as an orphan if you use the 'ORPHANS' option.

**Note:** The hierarchy data movement routines will never delete dimension values in Express. To delete dimension values, use the Maintain -> Dimension Value option in the OFA Client interface.

## Loading Data From the LEDGER\_STAT Table

The LEDGER\_STAT table in FDM contains your institution's general ledger information and key statistical data. This step brings historical data from LEDGER\_ STAT into Express through the use of filters, which identify the financial elements, consolidation codes, and years you want to bring into Budgeting & Planning.

Having accurate, reconciled LEDGER\_STAT data available in Express permits historical data to be available, which you can use to develop your future projections. The routine allows you to update your forecasts with historical months of actual data without affecting the forecast for future time periods.

The LEDGER\_STAT data movement routine reads data out of the LEDGER\_STAT table, dividing balances by the currency factor (usually 1000) and writes the results to the Financial Plans planning item. Users have the option to append any new leaf values encountered during the read from the LEDGER\_STAT table to the dimensions in the Express database.

In addition, if you have other forecast or plan information stored in LEDGER\_STAT, this information can be transferred to the Express database by filtering on the consolidation code you want to transfer. You may need to modify the as-of-date for the Forecast dimension value that the forecast or plan information is being loaded into.

#### Data Filtering and Forecasting

This step also enables you to filter on Organizational Unit and Chart of Account leaves so that you can bring in defined subsets of data. This further refinement in filtering enables you to refresh a subset of the Express database or filter out, for example, organizational units found only in FDM, if you want those units excluded.

Regarding the Forecast dimension, you can perform the following functions:

- Select the forecast dimensions to which you want data applied
- Update multiple forecasts with a single execution of the routine
- Establish and maintain different as-of-dates for different forecasts and load actual data according to those unique dates, without overriding forecasted data with actual data

#### Data Map

The LEDGER\_STAT table in FDM contains data organized by organizational unit and chart of accounts. Additional dimensions such as Customer Segments may or may not be identified in the LEDGER\_STAT table. The routine is designed to handle both situations.

#### Key Actions for Loading LEDGER\_STAT Data

Step	The routine
Step 1	Determines maximum as-of-date for all forecasts specified in the load call. The as-of-date will be used to load only data whose date is less than or equal to the as-of-date.
Step 2	Builds a SQL statement based on the free form where clause and filter parameters of the load call.
Step 3	Determines which parameters map a column in FDM to an Express dimension and which Express dimensions are being limited to a single dimension value.
Step 4	Builds the SQL logic to convert '002' currency codes to the functional currency stored in FS.ENV.CAT.
Step 5	Builds the SQL to prepend the argument-specified prefix to leaf values for the corresponding dimensions.
Step 6	Runs SQL query and imports data into a temporary working area.
Step 7	Copies data into FS.FIN_DATA while dividing by currency factor.
Step 8	Copies data to all specified forecasts, excluding any time periods beyond the as-of-date, per forecast.
Step 9	Populates any blank descriptions for all dimension values on FS.FIN_DATA.

## **Loading Current Position Data**

The Risk Manager cash flow engine generates the cash flow run off projections and repricing projections for your current book of business. The data on which the projections are based is found at the customer account level in the FDM instrument tables. This provides highly accurate cash flow results.

The account level data is used by Risk Manager to generate the run off and repricing results. These results are then organized in summary form by key leaves (usually organizational unit, chart of account, currency, and financial element) and are then available for loading into Express.

The RES DTL XXXXXX data movement routine reads data out of the particular result detail table, divides balances by the currency factor (usually 1000), converts the rate extensions to whole rates by dividing the extensions by their corresponding balances, and writes the results to the Financial Plans planning item. Users have the option to append any new leaf values encountered during the read from the RES DTL\_XXXXXX table to the dimensions in the Express database.

In FDM this data is summarized and stored in tables using the following naming convention: RES\_DTL\_<number>, where <number> is the Risk Manager Process ID number.

### **Data Filtering and Forecasting**

The data movement routine also enables you to filter on Organizational Unit and Chart of Account leaves so that you can bring in defined subsets of data. This further refinement in filtering enables you to refresh a subset of the Express database or filter out, for example, organizational units found only in FDM, if you want those units excluded.

Regarding the Forecast dimension, you can perform the following functions:

- Select the forecast dimension value to which you want data applied
- Update multiple forecasts with a single execution of the routine, provided that all forecasts have the same as-of-date

## **Key Actions for Loading Current Position Data**

Step	The routine
Step 1	Builds a SQL statement based upon the free form where clause and filter parameters of the load call.
Step 2	Determines which parameters map a column in FDM to an Express dimension and which Express dimensions are being limited to a single dimension value.
Step 3	Queries Bucket Start and End Dates from OFSA_RESULT_BUCKET for the specified Risk Manager Process ID's SYS_ID_NUM.
Step 4	Validates Bucket Start and End Dates to ensure that they span only consecutive whole months.
Step 5	Validates that all Forecasts specified for the load have the same as-of-date.
Step 6	Verifies that the as-of-date is exactly one month prior to the first Bucket in the Result Detail table.
Step 7	Loads data from RES_DTL_XXXXXX table where XXXXXX is the specified SYS_ ID_NUM.
Step 8	Calculates current position rates.
Step 9	Divides Current Position Balances by the currency factor.

Step	The routine
Step 10	Copies data to all specified forecasts, excluding any time periods prior to and exclusive of the as-of-date, per forecast.
Step 11	Populates any blank descriptions for all dimension values on FS.FIN_DATA.

### Details of the LEDGER\_STAT and Current Position Routines

The data movement routines used to move LEDGER\_STAT and current position data (RES\_DTL\_XXXXXX) are similar. This section describes important considerations when creating and executing either routine and provides sample calls for both.

## **Considerations When Using These Data Movement Routine Calls**

This section provides information on the following:

- Matching or appending leaves
- Transforming Time columns to dimension values
- Deleting pre-existing values before executing a new routine

## **Matching or Appending Data**

You can choose to either ignore or incorporate new leaves into the Express database using one of the following options:

Option	Functionality
MATCH	This option verifies that a dimension value exists in Express for the FDM leaf value. If the leaf value does not already exist in Express then the data associated with that leaf is not loaded. This option prevents the introduction of new dimension values into Express.
APPEND	This option creates new dimension values in Express when the data movement routine encounters new leaf values and loads the data associated with that leaf. This option allows the introduction of new dimension values into Express.

## **Transforming Time Columns to Dimension Values**

In FDM, time periods are treated as separate columns. In Express, however, periods of time are dimension values of the Time dimension. FS.LOAD\_DATA executes this transformation from columns to dimension values when transforming data.

For Current Position data Time values are determined by evaluating the corresponding row in OFSA\_RESULT\_BUCKET for the particular RES\_DTL\_ XXXXXX table.

> **Note:** Data is moved, based on the following relationships between the FDM tables and the forecast as-of-date:

- For LEDGER\_STAT, the time periods are before or equal to the forecast as-of-date
- For RES\_DTL\_XXXXXX tables the time periods are after the forecast as-of-date

Date is not moved from either tables if:

The value(s) is null or zero

### **Deleting Pre-Existing Data Before Executing a New Routine**

The LEDGER STAT and RES DTL XXXXXX routines do not delete any data before loading. Administrators should delete data from the destination months by setting them to NA before running either load process.

#### Sample Calls

The following two sample calls illustrate how these calls are used to move data from the LEDGER\_STAT table and the RES\_DTL\_XXXXXX tables in FDM to Express.

> **Note:** Line numbers appear in both sample calls. These are used to identify specific lines in the calls as they are discussed in the following sections. Do not include these numbers in the calls you use.

#### Sample Call for LEDGER\_STAT

```
Call FS.LOAD_DATA('<user>/<password@<dbname>'
        'FS.FIN DATA'
      '-iqnored-'
       'LEDGER STAT'
        'USD'
       'YEAR S in (1996, 1997) and CONSOLIDATION CD=100'
FEAR_S IN (1996, 1997) and CONSOLIDATION_CD=100

7 'FINANCIAL_ELEM_ID' '-ignored-' '100,140,420,450,455,457'

9 'FS.STRATEGY' '-ignored-' '-ignored-' 'MOMENTUM'

10 'FS.FORECAST' '-ignored-' 'BASE'

11 'FS.ORG_UNIT' 'APPEND' 'F' 'ORG_UNIT_ID'

12 'FS.CHRT_OF_ACCT' 'APPEND' 'F' 'BP_COA_ID'

13 'FS.FIN_ELEM' 'APPEND' 'F' 'FINANCIAL_ELEM_ID'

14 'FS.CURRENCY' 'APPEND' '-ignored-' 'ISO_CURRENCY_CD')
```

## Sample Call for RES\_DTL\_XXXXXX Tables

```
Call FS.LOAD DATA('<user>/<password@<dbname>'
    'FS.FIN DATA'd
    '-ianored-'
     'RES_DTL_10000003'
     '-ignored-'
    '-free form where clause-'
     'FINANCIAL_ELEM_ID' '-ignored-'
                                                                  '60,80,90,100,120,130,140,...'
* 'SCENARIO_NUM' '-ignored-'

* 'SCENARIO_NUM' '-ignored-'

'FS.STRATEGY' '-ignored-'

'FS.FORECAST' '-ignored-'

'FS.ORG_UNIT' 'APPEND'

'FS.CHRT_OF_ACCT' 'APPEND'

'FS.FIN_ELEM' 'APPEND'

'APPEND'

'APPEND'
                                                                  111
                                                                  '-ignored-' 'MOMENTUM'
                                                                 '-ignored-' 'BASE'
'F' 'ORG_UNIT_ID'
'F' 'BP_COA_ID'
'C' 'FINANCIAL_ELEM_ID'
                                        'APPEND'
'APPEND'
'APPEND'
                                                                  '-ignored-' 'ISO_CURRENCY_CD')
 14 'FS.CURRENCY'
```

**Caution:** Line 7 of the sample call for RES\_DTL\_XXXXXX uses ellipsis to indicate the omission of additional financial elements that should be present. Your sample call must list all financial elements you want to include for this parameter. Using ellipsis as shown in this example will cause your call to fail.

#### Call Format Categories

The patterns within the data movement routine calls can be grouped into two categories:

Category 1	Fixed-format parameters	These parameters are lines 1 through 5 of the sample calls.	
Category 2	Flexible-format parameters	These parameters begin on line 6. The number of parameters is variable, however, they must follow a specified pattern	

For the flexible format parameters, the first lines contain the filtering criteria for the WHERE clause of the resulting SQL statement. The next section contains the data sourcing information where the target dimension names are mapped to the source column names from FDM. You must also include information to instruct the routine on how to populate the dimension values.

#### **Fixed-Format Parameters**

The first five parameters of the LEDGER\_STAT and RES\_DTL\_XXXXXX loads are fixed and cannot be expanded. The following table describes these parameters in the order in which they are used.

Line		
Number	Description	Example
1	Database Connection String in the format ' <user>/<password@<dbname>'</password@<dbname></user>	'OFSADEMO/password@DEMODB'
2	Variable name into which data will be loaded. This will always be FS.FIN_DATA.	'FS.FIN_DATA'
3	An ignored, although mandatory, parameter. It is sufficient to use the string '-ignored-' as a placeholder for this parameter.	'-ignored-'
4	A directive to indicate what data source is being loaded.	
	<ul> <li>For LEDGER_STAT loads this must be 'LEDGER_STAT'</li> </ul>	'LEDGER_STAT'

Line Number	Description		Example
		For Result_Detail loads, this is the table name in the format 'RES_ DTL_XXXXXX' where XXXXXX is the SYS_ID_NUM	'RES_DTL_123456'
5	The currency code for translating '002' currencies. This should be the functional currency.		
	•	For LEDGER_STAT loads use an entry such as the example	'USD'
	•	For Result_Detail loads this parameter is ignored	'-ignored-'

#### **Flexible-Format Parameters**

The flexible-format parameters can be grouped into two subcategories with each subcategory performing a specific type of function.

Subcategory 1	Performs the filtering for the data extract by providing criteria used to build the WHERE clause in the SQL statement that extracts the data from FDM.
Subcategory 2	Contains data sourcing information to map the target dimension names to the source column names in FDM.

#### **WHERE Clause Parameters**

There are two sections of parameters that filter the data extracted from FDM before being loaded into Express.

The first section of parameters is a free form WHERE clause, all contained within one single-quoted parameter. This parameter section can be eliminated by including a placeholder argument with a dash preceding the text of the argument, as shown in line 6 of the RES\_DTL\_XXXXXX sample call.

The second section of parameters provides an addition to the WHERE clause, restricting the filter to specific values. This set of parameters can only be used when the filtering criteria uses an equality operator for a fixed list of values. Wildcards are not valid. There can be one or more sets in this section of parameters as needed. Lines 7 and 8 of the RES\_DTL\_XXXXXX sample call illustrate this.

## Format Examples

This section uses lines from the sample calls to illustrate different ways that you can create your WHERE clauses.

The basic format of these two sections is as follows:

Section 1	<free clause="" form="" where=""></free>			
Section 2	<column name=""> &lt;-ignored-&gt; <a comma-separated="" list="" of="" values=""></a></column>			
	This second section consists of a set of three parameters, with the ignored parameter being a required placeholder. Additional lines for this section are optional, to include as needed. These additional lines need to follow the format of line 7 in the sample calls.			

**Caution:** Entries for both line 6 and line 7 are required. For line 6 you can disable the free form WHERE clause by making it an ignored parameter. See "Additional Notes" in this section for more information on creating ignored parameters. For line 7, however, you cannot make the first and third parameters ignored parameters.

### Example 1

This example illustrates a basic call:

```
'YEAR_S in (1996, 1997) and CONSOLIDATION_CD=100'
'FINANCIAL_ELEM_ID' '-ignored-' '100,140,420,450,455,457'
```

#### **Example 2**

This example illustrates a more complex call, with additional filtering parameters:

```
'-free form where clause-'
'FINANCIAL_ELEM_ID' '-ignored-' '60,80,90,100,120,130,140,...'
'SCENARIO_NUM' '-ignored-' '1'
```

Note that ellipses in line 7 have been inserted to indicate the omission of additional financial elements. These omitted financial elements, rather than ellipses, need to be present in your call.

#### Dimension to Column or Value Mapping

The final section of parameters maps target Express dimensions to source relational columns or to specific dimension value(s).

This section consists of parameters in sets of four where each set has an expected format. Within this section, there is no required ordering of the sets.

The only requirements are that:

- The four parameters be in the expected format; and
- All dimensions within the FS.FIN\_DATA variable be included in this list

For clarity, the following examples display all four parameters, each on one line. This section of parameters is flexible, to accommodate installations that have utilized user-defined fields in the Budgeting & Planning data model. The additional dimensions for these user defined fields must be added to this section until all dimensions in FS.FIN DATA are addressed.

### Format: Express Dimension Maps to a Relational Column

The following example illustrates the mapping between a dimension value in Express and a column in the FDM relational database:

13	'FS.FIN_ELEM'	'APPEND'	'F'	'FINANCIAL_ELEM_ID'	_

Where	Represents
'FS.FIN_ELEM'	The Financial Element dimension in the FS.FIN_DATA variable
'APPEND'	The selection from the options APPEND or MATCH. See "Matching and Appending Data" in this section for additional information.
'F'	The prefix character used for creating leaf values in Express
'FINANCIAL_ELEM_ID'	The FDM relational column

#### Format: Express Dimension Limited to a Dimension Value

When a dimension is limited to a dimension value, since it does not equate to a relational column name, the parameters for APPEND, MATCH, and Prefix do not apply and, therefore, are ignored.

The following example illustrates this approach:

'FS.STRATEGY' '-ianored-' '-ignored-' 'MOMENTUM'

#### **Additional Notes**

Note the following with regards to these data movement routines:

- The Express line continuation character is a dash (-)
- Parameters must be surrounded by single quotes
- Quotes within the free form WHERE clause must be preceded with backlashes
- Currency values do not use a prefix therefore the prefix parameter is ignored
- FS.LOAD\_DATA ignores parameters beginning with a dash (inside the single quotes). For example, '-free form SQL where clause-' is ignored because FS.LOAD\_DATA will detect the dash in the first character of the parameter.

**Caution:** FS.LOAD\_DATA does not update your OFA Super Administrator database. You must update it manually using the Express UPDATE command.

#### Analyzing the SQL Statement

For further analysis of how the SQL statement is constructed, you can review the the system-generated program FS.SQLCURSOR. This program contains the actual SQL command issued to FDM for extracting the data imported into Express.

After FS.LOAD DATA has finished running, you can review the entire generated SELECT statement by entering the following Express command:

DESCRIBE FS.SQLCURSOR

## Interest and Exchange Rate Forecasts

The Interest and Exchange Rates Forecast data movement routine reads data out of the OFSA INTEREST RATES AUDIT and OFSA EXCHANGE RATES AUDIT tables. The audit tables are created when a Risk Manager Process ID is run with the Forecast Rates box checked in the Audit tab of the Process ID. Since rates are stored as whole rates in the audit tables there is no need to perform any rate conversion.

The values are loaded into the Interest Rate Scenario and Exchange Rate Scenario associated with the Forecast dimension value given in the call. Interest Rate Code (IRC) values are converted to Interest Rate Type dimension values; the ID number for the IRC is prefixed with the letter 'F' when it is converted to an Interest Rate Type dimension value.

**Note:** This data movement routine *will* initialize both Express database variables, FS.INTEREST\_RATE and FS.EXCHANGE\_PCT, by deleting all rates associated with the destination scenario values.

#### Sample Call For Loading Interest and Exchange Rate Forecasts

A sample call for this routine follows:

```
CALL FS.LOAD DATA( '<user>/<password>@<dbname>' 'RATES' '122875' 'BASE'
                                                                          '-ignored-'
```

#### Notes on the Sample Call for Loading Interest and Exchange Rate Forecasts

- Parameters must be surrounded by single quotes.
- The first parameter is the OCI ConnectString, shown as: '<user>/<password>@<dbname>'.
- The second parameter must be 'RATES'.
- The third parameter is the SYS\_ID\_NUM for the Risk Manager Process ID that generates the rates tables.
- The fourth parameter is the FS.FORECAST dimension value.
- The fifth parameter is ignored.
- The sixth parameter is the Risk Manager Forecast Rates ID scenario number that is being loaded.

The argument for the FS.FORECAST dimension value determines the as-of-date to use to filter interest rates, where the START DATE in the OFSA INTEREST RATES\_AUDIT table must be equal to the as-of-date. The interest rate data is

loaded into the FS.RATE\_SCENARIO corresponding to the Forecast, as indicated by the FCST Interest Rate Scenario attribute. Likewise, the exchange rate data is loaded into the FS.CURRENCY\_SCENARIO corresponding to the Forecast as indicated by the FCST Currency Scenario attribute.

Caution: FS.LOAD\_DATA does not update your OFA Super Administrator database. You must update it manually using the Express UPDATE command.

### Key Actions for Loading Interest and Exchange Rate Forecasts

Step	The routine	
Step 1	Verifies that the START_DATE is equal to the as-of-date for the specified forecast.	
Step 2	Clears out forecasted interest and exchange rate data in Express for all interest rate codes included in the audit tables for:	
	■ The specified Process Sys ID; where	
	<ul> <li>Start Date is equal to the Forecast as-of-date; and</li> </ul>	
	<ul> <li>Scenario Num is equal to the specified Scenario Num.</li> </ul>	
Step 3	Adds interest rate types corresponding to the data being loaded if they do not exist already.	
Step 4	Loads non-zero interest rates for day terms for terms over 15 days. Terms are converted to monthly terms.	
Step 5	Loads non-zero interest rates for year terms, with converted year-term rates overwriting day term rates from step 4, where interest rate term and interest rate code coincide. Terms are converted to monthly terms.	
Step 6	Loads non-zero interest rates for month terms, with monthly terms overwriting converted day and year term rates where interest rate term and interest rate code coincide.	
Step 7	Loads non-zero exchange rates from OFSA_EXCHANGE_RATES_AUDIT for the specified Process Sys ID and Scenario Num. Loads into the FCST Currency Scenario corresponding to the specified forecast	
Step 8	Populates any blank descriptions for all related dimensions.	

## **Maturity Mix Assumptions**

The Maturity Mix data movement routine reads data out of OFSA\_MATURITY\_ AUXILARY and creates Mix Assumption Set dimension values by conjoining the MLS\_CURRENCY\_CODE, the Risk Manager product leaf value, and the bucket value. The assumptions are then stored, for each Mix Assumption set, in the Maturity Mix default.

Maturity mix assumptions are loaded using the sample call outlined in this section. For a detailed discussion of maturity mix forecasting, see the section entitled "Maturity Mix Data Model for New Business" in Chapter 2, "The Data Model" and Appendix D, "Details of the Maturity Mix Data Model".

#### Sample Call For Loading Maturity Mix Assumptions

A sample call for this routine follows:

```
CALL FS.LOAD DATA( '<user>/<password>@<dbname>' 'FS.MIX DEFAULT'
                                                                   '108156' )
```

**Caution:** The Maturity Mix data movement routine does not delete any values before loading data. Administrators should delete any unwanted data before running the Maturity Mix data movement routine.

### Notes on the Sample Call for Loading Maturity Mix Assumptions

- Parameters must be surrounded by single quotes.
- The first parameter is the OCI ConnectString, shown as: '<user>/<password>@<dbname>'.
- The second parameter must be 'FS.MIX\_DEFAULT'.
- The third parameter is the SYS\_ID\_NUM for the Risk Manager Maturity Strategy ID containing the assumptions being loaded into Express.

**Caution:** FS.LOAD\_DATA does not update your OFA Super Administrator database. You must update it manually using the Express UPDATE command.

## **Key Actions for Loading Maturity Mix Data**

Step	The routine
Step 1	Loads all rows from OFSA_MATURITY_AUXILIARY for the specified Maturity Sys ID. Converts ISO Currency Codes of '000' to the FDM Functional Currency when creating Maturity Mix Assumption set dimension values.
Step 2	Adds new Maturity Mix Assumption sets, if found, to the Maturity Mix Assumption Set dimension.
Step 3	Converts any day or year terms to monthly terms.
Step 4	For those Maturity Mix Assumption sets that have more than 10 mix breakouts, the routine sorts all the mix breakouts by mix $\%$ in descending order, so that the nine largest mix $\%$ are loaded intact. The remaining mix $\%$ are summed and allocated to the tenth mix breakout.
Step 5	Populates any blank descriptions for all related dimensions.

## Using FS.DM.CATALOG to View and Adjust the Data Movement Routines

The catalog FS.DM.CATALOG stores information about data you have loaded using the data movement routines and also provides options for adjusting that data. The following tables list and describe the properties found in FS.DM.PROP:

BP.OFSA.COL	Description and Explanation	
	Description:	Relational column name of source data
	Sample:	COMMON_COA_ID
	Seeded:	Yes
	Modified by:	FS.LOAD_HIER
	Source:	Argument to FS.LOAD_HIER

BP.OFSA.DESC	Description and Explanation	
	Description:	Names of the relational database source table and table columns containing descriptions for Tree Rollup ID node values.
		This entry is not customizable.
		See "BP.OFSA.DESC" for additional information on this property.
	Sample:	OFSA_LEAF_DESC
		LEAF_NODE
		DESCRIPTION
	Seeded:	Yes
	Modified by:	Not modified
	Source:	Seeded

BP.LEAF_NUM_ID	Description and Explanation	
	Description:	LEAF_NUM_ID value for the FDM leaf field identified in BP.OFSA.COL. This value is obtained from OFSA_CATALOG_OF_LEAVES.
	Sample:	3
	Seeded:	No
	Modified by:	FS.LOAD_HIER
	Source:	OFSA_CATALOG_OF_LEAVES

BP.ACT.HIER	Description a	Description and Explanation	
	Description:	This value contains the most recent internal hierarchy ID in the Express database.	
		Refer to the section "BP.ACT.HIER" appearing later in this chapter for additional information on this property.	
	Sample:	HI.AA80955	
	Seeded:	Yes	
	Modified by:	FS.LOAD_HIER	
	Source:	Argument to FS.LOAD_HIER	

BP.SIDN	Description a	Description and Explanation	
	Description:	This is the SYS_ID_NUM corresponding to the most recently loaded hierarchy.	
	Sample:	100574	
	Seeded:	No	
	Modified by:	FS.LOAD_HIER	
	Source:	Argument to FS.LOAD_HIER	

BP.OFSA.USER	Description and Explanation	
	Description:	Relational database User ID used to log into an OCI connection during the most recent hierarchy load.
	Sample:	ORACLE
	Seeded:	No
	Modified by:	FS.LOAD_HIER
	Source:	Database connection string
		argument to FS.LOAD_HIER

BP.DATE	Description and Explanation	
	Description:	Date and time of most recent hierarchy load.
	Sample:	1999.01.01 12:00:52
	Seeded:	No
	Modified by:	FS.LOAD_HIER
	Source:	Express system date and time

BP.DESC.W.NODES	Description and Explanation	
	Description:	YES if descriptions for new dimension values should be appended with leaf or node values.
	Sample:	YES
	Seeded:	Yes
	Modified by:	User
	Source:	User or seeded

BP.UDF	Description a	Description and Explanation	
	Description:	YES if this dimension is a user-defined dimension in FS.FIN_DATA.	
		This is for internal use - do not change	
	Sample:	NO	
	Seeded:	No	
	Modified by:	FS.USER_DEF_DIMS	
	Source:	[no entry for source]	

BP.CODE.TRANSL	Description and Explanation	
	Description:	Flag identifying what code translation logic to use when importing dimension values. The default logic prepends a user-supplied prefix to leaf values.
		Options are NA <default> or CURRENCY.</default>
		See "BP.CODE.TRANSL" for additional information on this property.
	Sample:	NA
	Seeded:	Yes
	Modified by:	User
	Source:	User or seeded

#### **BP.OFSA.DESC**

This is not a customizable entry. Only specific entries are valid.

#### **BP.ACT.HIER**

This value is seeded for FS.CHRT\_OF\_ACCT and FS.ORG\_UNIT with the Express HI.ENTRY values corresponding to the single hierarchies seeded for those dimensions.

If additional hierarchies are desired other than the seeded ones the Administrator can create the hierarchies in OFA and populate them by passing the HI.ENTRY value into FS.LOAD\_HIER as an optional parameter.

The last hierarchy load performed on any given dimension would have that HI.ENTRY value reflected in this catalog entry.

#### **BP.CODE.TRANSL**

The default method for loading dimension values into Budgeting & Planning is to prepend a provided prefix character to leaf and node values when they are brought over from FDM.

In this release a new method is introduced, specifically designed to load ISO\_ CURRENCY\_CD values. This method loads the values 'as-is' without prepending a character prefix, since all currency codes must start with a character.

In addition, code conversion logic translates values of '002' to the FDM functional currency for the LEDGER\_STAT and Maturity Mix Assumption Set loads. In the LEDGER\_STAT writeback routine, the Express database BASE Currency dimension value is converted to the FDM functional currency. The functional currency is obtained from FS.ENV.CAT, which is populated by FS.SET\_META.

## Time Dimension Management

In addition to creating the Time dimension, fiscal year, and appropriate time periods through the OFA interface you also need to run the FS.MAINTAIN TIME procedure.

FS.MAINTAIN\_TIME is included in the FS.ADDTOSUPER routine when you create the Budgeting & Planning structures and data.

## When Running FS.MAINTAIN\_TIME is Required

You must run FS.MAINTAIN TIME whenever you either add or delete time values through OFA. Failing to do so will prevent your cash flow calculations from running properly.

To run this routine follow these steps:

- Open the Express command window.
- Attach the Super database and the FSBPTOOL and FSLANG databases as instructed in "Prerequisites to Running Your Routines" in the "Executing the Data Movement Routines" section of this chapter.
- Enter the following command:

```
Call FS. Maintain Time
```

This routine accomplishes the following:

- Populates the FS.ORIG MONTH dimension from the Time dimension.
- Stores day weighting information, which is necessary for computing rates, yields, and interest, and for doing proper rollups.

# **Establishing Attributes**

Attributes relate the values of one dimension to another. For the Budgeting & Planning application, these attributes are all one-to-many relationships. For instance, multiple Chart of Account dimension values are mapped to one account type attribute, such as asset or liability.

## **Defining Attributes**

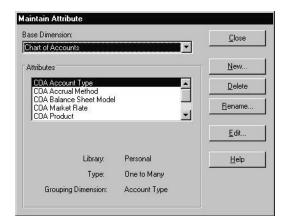
The following attributes need to be populated:

Category	Attribute		
Chart of Account	■ COA Account Type		
	<ul> <li>COA Accrual Method</li> </ul>		
	<ul> <li>COA Balance Sheet Model</li> </ul>		
	<ul> <li>COA Transfer Price Method</li> </ul>		
Forecast	■ FCST Interest Rate Scenario		
	■ FCST Maturity Mix Scenario		
	■ FCST Data As Of Date		
	■ FCST Currency Scenario		
Report Line Item	■ RPL Chart of Accounts		

Attributes can be assigned either using Express Administrator or through the OFA interface. If you are unfamiliar with Express command language it is recommended that you populate your attributes through the OFA interface. Conversely, if you are familiar with Express command language you can create a script to assign the attributes.

## **Defining Attributes Using OFA**

You can populate your attributes using the OFA interface by launching OFA, selecting the Maintain menu option, and the Attribute sub-menu option.

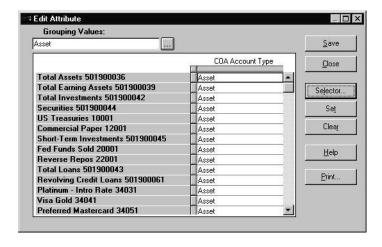


## The following OFA dialog box appears:

From the Base Dimension list box select the dimension for which you want to establish an attribute. In the above example the Chart of Accounts dimension has been selected.

Below the Base Dimension list box is the Attributes scroll box listing attributes related to the Base Dimension (in this example Chart of Accounts). Select the attribute you want by highlighting it (in this example the selected attribute is COA Account Type) and select Edit.

The OFA Edit Attribute dialog box appears:



The Grouping Values item is the attribute value that you want to assign to one or more dimension values in the base dimension of the attribute. In this example, the Asset account type option is listed as the grouping value. Using the white grid, highlight the dimension values to which you want to assign this attribute value and select Set.

Once you have completed defining all dimension values, select Save, followed by Close.

## Assigning Attributes in Express

If you are familiar with Express command language you can either use the command line or create a script to establish the attributes you want. The following set of commands sets the first 10 chart of account dimension values to an account type attribute of ASSET:

```
limit fs.chrt_of_acct to first 10
fs.coa acct_type='ASSET'
```

# **Forecast Management**

This section presents the following two forecast-related tasks:

- Adding a new forecast
- Setting the as-of-date for a forecast

## Adding a New Forecast

The Budgeting & Planning database, when installed, has one seeded Forecast dimension value called Base. In the Forecast dimension of the Financial Plans planning item this seeded forecast appears as the only dimension value.

To create an additional Forecast dimension value, follow these steps:

- Launch Oracle Financial Analyzer.
- Choose Dimension Value from the Maintain menu.
- Select the Forecast dimension.
- Click New and type the name you want to give to the new forecast.
- Type the Express name as the dimension value. 5.
- Close the dialog box.

## Setting the As-of-Date for a Forecast

Setting the as-of-date for a forecast is a key task. By advancing the as-of-date you establish the months of historical or actual data that the data movement routines load into Budgeting & Planning. The as-of-date determines the last month of historical data that is loaded.

> Note: Set your as-of-date for a forecast before running the data movement routines, not after.

If you have multiple forecasts you must set the as-of-date for each forecast. You can set these dates independently. For example, you can advance the as-of-date for one forecast and leave the as-of-date for another forecast either unchanged or set to a different date. The data movement routines load the correct months of actual data for each forecast based on these dates.

To advance an as-of-date, follow these steps:

- Launch Oracle Financial Analyzer.
- From the Maintain menu choose Attribute. The Maintain Attribute dialog box appears.
- Select Forecast from the Base Dimension list box. 3.
- Select FCST Data As Of Date from the Attribute list box. 4.
- Click Edit. 5.

The Edit Attribute list box appears.

- Expand the Select Grouping Value list box and click the date you want for your as-of-date.
- 7. Highlight the date cell of the forecast to which the new date applies.
- Click Set. 8.
- Click Save.

This process sets the new as-of-date for a forecast. Repeat this step, when necessary, to prepare for loading additional months of historical or actual data.

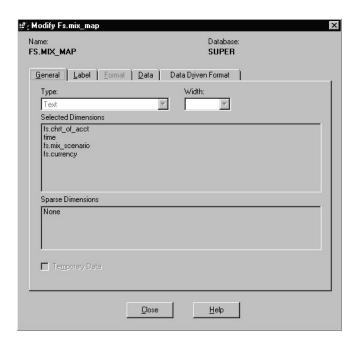
# **Maturity Mix Information**

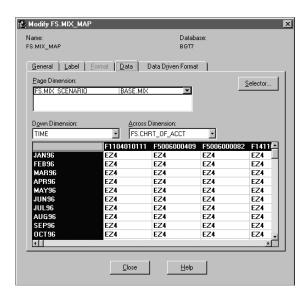
This discussion of maturity mix assumes that your maturity-related data has already been moved from FDM to the Express database. If you plan to manually create your maturity mix default assumption sets you need to complete that task before proceeding.

This process assigns a set of default maturity mix assumptions to a specific combination of chart of accounts, time period, and currency.

To set the maturity mix assignments complete the following steps:

- Log into Express Administrator and attach to the Super database.
- In the variable section of the database Explorer window locate the variable FS.MIX\_MAP and double-click on it to open the Modify FS.MIX\_MAP dialog box.





#### Select the Data tab.

For each intersection of the Time, Chart of Accounts, Mix Scenario, and Currency dimensions select a maturity assumption set ID (FS.MIX\_ASSUM\_SET) that you want to apply to this data.

Only accounts that use a cash flow-based method need to have a maturity mix assumption set applied.

> **Note:** These steps can also be completed using Express commands or an OFA worksheet.

# **New Business Timing**

New business timing can vary by chart of account. If the new business timing is other than mid-month you will need to set your new business timing for each chart of account. If you do not, the Budgeting & Planning application assumes mid-month timing.

### Using an OFA Worksheet to Change New Business Timing

To set new business timing for individual chart of account values use an OFA worksheet to edit the New Timing Percent planning item (financial data item in OFA).

#### Using Express Administrator to Change New Business Timing

As an alternative you can use Express Administrator. The Express object name for the New Timing Percent planning item is FS.NB\_TIMING\_PCT.

# Controlling Which Financial or Mix Elements Appear in the Interface

Financial and mix elements selected to appear in the interface are called 'enabled.' The Boolean variables FS.FE ENABLED and FS.ME ENABLED define the financial or mix elements enabled for each balance sheet model type.

Use the variable FS.FE ENABLED for financial elements appearing in the main forecasting window and FS.ME\_ENABLED for mix elements associated with your maturity mix assumptions. A value of YES indicates that a specific financial or mix element is enabled for the selected balance sheet model type.

Once you have associated your Chart of Accounts products with the seeded balance sheet model types the application automatically links these products to the appropriate seeded financial elements. The application has also been designed to enable some financial and mix elements while disenabling others. The balance sheet model type governs the default settings.

These two variables are dimensioned by the following:

Variable	Dir	Dimensions		
FS.FE_ENABLED	•	FS.BAL_SHT_MODEL		
	•	FS.FIN_ELEM		
FS.ME_ENABLED		FS.BAL_SHT_MODEL		
	•	FS.MIX_ELEMENT		

If you want to make changes to these settings you must access these variables through Express Administrator, not OFA.

Also, the following prerequisites must be met before making any changes:

- Populate the Balance Sheet Model dimension with balance sheet model types. (Note that nine Balance Sheet Model dimension values are seeded. User-defined dimension values can be added using OFA by selecting the Maintain menu option and then selecting Dimension Values).
- Populate the COA Balance Sheet Model attribute with associations between every chart of account product and a balance sheet model type

**Note:** You can view cell parameters in an OFA worksheet but you cannot change them in OFA. Use Express Administrator to make changes.

# **Setting Read-Only and Read/Write Parameters**

This section discusses read-only and read/write settings for the application. Read-only cells appear shaded in the Budgeting & Planning interface and cannot be edited. Read/write cells are unshaded and can be edited.

Two operations set these parameters. The first uses the as-of-date. The second uses one of the following two variables:

- FS.FE WRITEABLE
- FS.ME WRITEABLE

## Using the As-of-Date to Set the Read-Only Parameter

When you set or advance the as-of-date for a forecast (use the FCST Data As of Date attribute) all cells equal to or earlier than the as-of-date contain actual data. By default, the application assigns the read-only setting to cells with actual data.

## Using FS.FE WRITEABLE and FS.ME WRITEABLE to Set Parameters

Use the Boolean variables FS.FE WRITEABLE and FS.ME WRITEABLE to set cells to either read-only or read/write. For the main forecasting window use FS.FE WRITEABLE. For the Maturity Mix Assumption interface use FS.ME WRITEABLE.

A value of YES indicates that a cells is read/write. A value of NO or NA indicates the opposite.

These two variables are dimensioned by the following:

Variable	Dimensions		
FS.FE_WRITEABLE	•	FS.BAL_SHT_MODEL	
	•	FS.FIN_ELEM	
FS.ME_WRITEABLE		FS.CHRT_OF_ACCT	
		FS.MIX_ELEMENT	
	•	FS.ORG_UNIT	

The application pre-defines read-only and read/write settings for financial elements appearing in the main forecasting window, however, it does not pre-define these settings for the mix elements appearing in the Maturity Mix Assumption interface.

**Note:** You must set FS.ME\_WRITEABLE = YES for the Chart of Accounts / Organizational Unit / Mix Element combinations where the entry of Mix Override values will be allowed.

To change these settings use Express Administrator, not OFA, and make sure the following prerequisites have been met:

- Populate the Balance Sheet Model dimension with balance sheet model types. (Note that nine Balance Sheet Model dimension values are seeded. User-defined dimension values can be added using OFA by selecting the Maintain menu option and then selecting Dimension Values).
- Populate the COA Balance Sheet Model attribute with associations between every chart of account product and a balance sheet model type

**Note:** You can view cell parameters in an OFA worksheet but you cannot change them in OFA. Use Express Administrator to make changes.

# **Transfer Pricing Accrual Methods**

For Budgeting & Planning to generate transfer pricing dollar charges and credits, you need to define an accrual basis. This is accomplished by populating the variable FS.TP\_ACC\_METH with one of the following accrual methods:

ACTUAL.ACTUAL

ACTUAL.365

ACTUAL.360

A30.360

A30.ACTUAL

A30.365

**INSTRUMENT** 

If you select the INSTRUMENT accrual method this generates transfer pricing charges and credits using the same accrual method that has been defined for the balance sheet product interest accruals in the COA Accrual Method attribute.

The database is seeded with a default transfer pricing accrual basis of ACTUAL. ACTUAL. To change this method to another, follow these steps:

- 1. Open the Express command window.
- 2. Attach the Super database and FSBPTOOL and FSLANG databases as instructed in "Prerequisites to Running Your Routines" in the "Executing the Data Movement Routines" section of this chapter.
- **3.** Enter the following command:

```
FS.TP_ACC_METH=<method>
```

where <method> is the accrual basis you select from the list of accrual methods, enclosed in single quotes.

For example, the following command sets the transfer pricing accrual basis to ACTUAL.360:

FS.TP\_ACC\_METH='ACTUAL.360'

## Distributing Express Database Objects and Data

Database objects are the Express database definitions of the following in the Budgeting & Planning data model:

- **Dimensions**
- Dimension values
- Variables (financial data items in OFA)
- Relations (attributes in OFA)
- Relation values

In OFA these database objects are called structure and include the OFA descriptions and other metadata associated with these objects.

Distributed data is the data values contained in the variables.

## Distribution Flow

After preparing the Super Administrator's personal database you are ready to distribute the Express database objects, data, and OFA metadata to the shared database and to your sub-administrators.

The distribution flow starts at the Super Administrator's personal database, where the objects and data reside. The objects and data are then distributed from the Super Administrator's personal database to the super shared database, then to the sub-administrator's shared databases. The sub-administrators, in turn, distribute Express objects or data to their end users.

**Note:** In the Web-enabled version, only structure must be distributed to users of the Budgeting & Planning interface. However, if any users will only use OFA, then both structure and data must be distributed using the Budget workstation approach.

## Controlling Data Access for End Users

Administrators at both the super and subordinate levels control end user data access by distributing specific organizational unit and other appropriate dimension values to end users.

End users are then only able to access the subsets of financial data pertaining to their organizational units.

> **Note:** Before you distribute the Express objects and data from FDM you need to have your OFA tiered system environment in place. For more information refer to the Oracle Financial Analyzer User's Guide.

#### Distribution Limitations

The Super Administrator and sub-administrators can create any database objects in their personal databases and distribute these objects to their shared database, and then to their end users. However, custom objects cannot be distributed to a higher level administrator or shared database. In other words a sub-administrator cannot create a database object and distribute it to the super shared database or the super administrator's personal database.

**Caution:** You cannot create database objects at a sub-administrator or budget workstation and distribute those objects to a higher level administrator or shared database. Database objects created for distribution to all users must first be created in the Super Administrator's personal database.

After this initial distribution, the following cycle begins:

- End users use the Budgeting & Planning application to develop forecasts and budgets.
- End users submit their work to their administrator; sub-administrators in turn submit data they have collected from their subordinate end-users up the hierarchy, and so forth until all data has been submitted into the Super Administrator's shared database. The frequency of submissions depends on your organization's policy regarding updating information.
  - For additional information on submitting data see "Saving to the Shared Database" and "Distributing Database Objects" in this chapter.
- The Super Administrator advances the Budgeting & Planning as-of-date and re-runs the data movement routines to load actual data from FDM into the Super Administrator's shared database.

- The Super Administrator may perform additional work using the Budgeting & Planning application
- The Super Administrator and sub-administrators re-distribute the new data and any new structures down the OFA tiered user hierarchy.

## **Distributing Database Objects**

The initial distribution distributes all of the Express objects and metadata down the OFA user hierarchy. Subsequent distributions are done to distribute new dimension values or attribute values not previously distributed.

During database object distributions, for most of the Budgeting & Planning dimensions, you can choose to distribute all dimension values to the subordinate shared database(s). However, for some dimensions, particularly the Organizational Unit dimension, you should select only the dimension values that pertain to that sub-administrator or end user.

For the Web-enabled version, data distributions are not required for end users who use only the Budgeting & Planning Java interface. You must distribute data to the Super Administrator's shared database for any external users who report directly to the Super Administrator. The Super Administrator also distributes data to any sub-administrator's personal database. Like the Super Administrator, the sub-administrator must also distribute data to their shared database for any external users who report to them. In addition, sub-administrators must also distribute data to any sub-administrators and so forth.

If the Super Administrator or sub-administrators have any budget workstations who will be using only the OFA client/server interface, as opposed to OFA Web Client interface, data and structure must be distributed to them as well.

## Distributing Data

Data distributions involve only data values of OFA Financial Data Items (variables in Express). Data should be re-distributed as necessary each time the super shared database is updated. This is done by either running data movement routines or creating/updating any other data at the top level.

For OFA client/server users (as opposed to OFA Web Client users), data is received into the subordinate shared or personal databases during the database "refresh" process. This process can be set to happen automatically when an end user logs into OFA.

All distributions are performed using the standard OFA distribution functionality. For more specific information regarding data distribution and data submission, refer to the Oracle Financial Analyzer User's Guide.

## **Budgeting & Planning Custom Distributions**

In addition to the distributions previously discussed, two custom distributions are needed for Budgeting & Planning-specific objects and data.

The first custom distribution distributes objects in the Budgeting & Planning data model that exist as Express objects but that are not registered with OFA.

The second custom distribution is a 'shortcut' for distributing data contained in all of the Budgeting & Planning planning items that you distribute to and are used at the sub-administrator level but are not re-submitted to the super shared database. These variables are referred to as 'one-way data.'

Both of these custom distributions are performed by distributing a "dummy" dimension using the OFA Distribute Structure function. When the administrator distributes either of the two dummy dimensions, a set of custom programs that mimic the OFA distribution functions are triggered. These custom programs copy certain objects, not easily distributed by the standard OFA distribution method, from the source database to the target database.

## Distributing the Non-OFA Budgeting & Planning Database Objects

From the Manage menu in OFA select Distribution -> Distribute Structure to open the Distribute Structure interface. On the left side of the interface appears a list of all the distributable objects in the current database. One of those objects is the Non-OFA BP Database Objects 'dummy' dimension.

To initiate the custom distribution, select this dimension and move it to the list box on the right, using the arrow button, then double-click on the name. The Selector appears, displaying a single dimension value for distribution. Select this value again and move it to the list box on the right using the arrow button. Choose OK.

Distributing this dimension with it's single dimension value causes the following Budgeting & Planning objects to be distributed:

•	FS.TP_ACC_METH	-	FS.MIX_DATA
-	FS.HIST_PDS		FS.IR_ACCESS
•	FS.FCST_PDS	_	FS.MD ACCESS
•	FS.CUJO	-	_
	FS.CUJO.DECIMAL1	•	FS.MD_VAR_SOURCE
	FS.CUJO.DECIMAL2	•	FS.FDI_ENTRY
	FS.CUJO.SPRD_DT	-	FS.FDI_PROP
•	FS.CUJO.SPRD_MTH	•	FS.FDI_CATALOG
•	FS.CUJO.DELETE		ESTIME MONTH NIIM
	FS.WKSHT_CATALOG	•	FS.TIME_MONTH_NUM
	FS.CP_ACCESS	•	FS.TIME_YEAR
	FS.FD_ACCESS	-	FS.DAYS_MON_YTD
	FS.FD_DATA	-	FS.FIN_DATA_YTD
	FS.ME_STATUS	-	FS.YTD_DAY_F140

Actions Requiring the Distribution of This Dimension Whenever you take the following actions you must distribute/re-distribute this dimension:

Action	Description			
Initial database object distribution	Distribute this dimension to the Super shared database and to each sub-administrator and end user.			
Changing the value in any of the scalar variables listed in this table:	Scalar Variable	Description		
	FS.TP_ACC_METH	Transfer Pricing Accrual Method		
	FS.HIST_PDS	Number of Historical Periods		
	FS.FCST_PDS	Number of Forecast Periods		
Adding users	Distribute as the initial distribution			

Action	Description		
Changing entries in the FDI	Distribute as the initial distribution.		
Catalog	For additional information on the FDI Catalog, see Chapter 5, "Administering Planning Item Access and Programs".		

## One-Way Custom Data Distribution

From the Manage menu in OFA select Distribution -> Distribute Structure to open the Distribute Structure interface. On the left side of the interface appears a list of all the distributable objects in the current database. One of those objects is the One-way Custom Data Distribution 'dummy' dimension.

To initiate the custom distribution, select the One-way Custom Data Distribution object and move it to the list box on the right using the arrow button, then double click on the name. The Selector appears displaying a single dimension value for distribution. Select this value again and move it to the list box on right using the arrow button. Choose OK.

Distributing this object with its single value distributes data for all of the variables in the Budgeting & Planning application except FS.MIX\_OVERRIDE, FS.FIN\_ DATA, and FS.CAPITAL\_PLANS.

**Note:** Even though this custom distribution uses OFA's Distribute Structure function the program is actually mimicking the OFA Distribute Data functionality. Therefore, it is important that the destination objects and dimension values already exist in the target database.

When the custom distribution is initiated, it exports all the data for each variable in the custom distribution. Each time the data for a variable is imported into a subordinate shared database during the refresh step, only the slices matching existing dimension values in that database are imported.

You can distribute any Budgeting & Planning variables using OFA's data distribution functionality. However, by default, only FS.FIN\_DATA, FS.MIX\_ OVERRIDE and FS.FEE\_INCOME appear in the OFA data distribution interface. To distribute other variables, follow these steps:

- Exit the Distribute Structure interface if it is open.
- 2. Select Maintain -> Financial Data Item.
- Select the planning item you want to distribute. 3.
- Choose the Enable Distribution option.

Now the variable appears in the data distribution interface and is available for distribution.

# **Administering Reports**

The Budgeting & Planning data model and programs included in this release have been designed to support the quick and efficient generation of reports normally required to review budget and forecast data as part of your organization's planning process.

Effective with the release of the Web-enabled version of Budgeting & Planning, users can now access reports that have been defined in Oracle Financial Analyzer (OFA) directly from the Budgeting & Planning interface. Web users who have received report access through the OFA distribution functionality can open a list of available reports from within the main Budgeting & Planning interface, select the desired report(s) and produce those reports for both viewing and printing.

This release also includes additional, seeded standard reports created specifically for use with the Web-enabled version of the application.

This chapter is intended for administrators who may be responsible for administering seeded and user-defined reports for Budgeting & Planning. For information on how to produce reports from the interface see Chapter 15, "Generating Reports".

This chapter presents the following topics:

- Reporting Features
- Reporting Elements
- **Report Totals and Sub-totals**
- Seeded Reports
- Reporting Dimensions, Dimension Values, and Attribute
- **Income Statement Report Formulas**
- **Detailed Reporting Formulas**

# Reporting Features

This version of Budgeting & Planning includes the following features:

- Budgeting & Planning generates and writes most of the financial elements required for standard reporting needs directly to the Financial Plans planning item in the Express database.
- Aggregation of data values is routinely performed by the application to generate and write totals and sub-totals to the database for reporting access at summary organizational, product, and time levels.
- A set of standard reports have been provided, addressing typical business requirements, for business unit managers and supervisors to use in reviewing financial results in a forecasting or budgeting exercise.
  - Reports that were seeded for use with the OFA client/server software have been expanded to include comparable balance sheet, income statement, and rate reports that can now be accessed over the Web using Budgeting & Planning.
- A pre-defined set of formulas have been developed for use in creating trend and comparative income statement reports.
- Effective in this release, two new dimensions and one new attribute have been added to the Budgeting & Planning data model to support production of income statement reports over the Web.
- When users launch reports from within the application, the OFA Web Client application is also launched. OFA Web Client is used to produce the reports by accessing data from the same session being accessed by Budgeting & Planning.
- You can have multiple reports open at the same time. When you open multiple reports, each is opened in its own browser window. These reports can be printed directly from the browser.

# **Reporting Elements**

Typical financial statement requirements include both trend reports delineating budget or forecast values over time and comparative reports that compare quarterly or annual amounts from one period to another.

These reports would normally cover the following financial data elements:

- **Average Balance Sheet**
- **Ending Balance Sheet**
- **Average Rates**
- **Average Transfer Rates**
- Transfer Pricing Spreads Dollars
- **Average Transfer Pricing Spreads Percentages**
- Transfer Pricing Spread Based Income Statement
- Interest Income/Expense Based Income Statement

The application generates and writes most of the financial elements required for standard reporting needs directly to the Financial Plans planning item in the Express database. This approach avoids the need for calculating items such as average rates or transfer rates through the use of formulas by storing those items in the database and making them directly available for access by reports.

The data model is seeded with the following financial elements that are populated with the results of running the interface:

Financial Element Value	Description
F100	Ending Balance
F140	Average Balance
F160	Average Net Rate
F170	Average Transfer Rate
F455	Non Interest Income
F457	Non Interest Expense
N451	TP Spread Income
N171	Average Spread
A420	Annualized Interest
A450	Annualized Charge/Credit

# Report Totals and Sub-totals

The application includes routines developed to solve or aggregate data in the Financial Plans planning item along organizational, chart of accounts, time, and any other user-defined hierarchies. When the Calculate With Partial Solve or Calculate With Full Solve options are processed in the Java interface, or when the FS.PARTIALROLLUP program is run from the Express command line, the aggregation of leaf-level data is performed. This generates aggregated values for parents and nodes along the hierarchies. This means that sub-total rows on a product hierarchy for items such as total loans, total investments or total assets are calculated and written back to the database at the last descendent organizational unit level.

Consolidations up the organizational hierarchy are also performed and values for the quarter and year time buckets are calculated and written back to the database as well.

All of these nodes, or parent data values, are available for access in seeded reports and reports you create in OFA. For example, if you produce a balance sheet report with product average balances you no not need to create a formula to sum values within the product hierarchy.

After solving or aggregating your data, you can select 'Total Assets' using the Selector to create the Total Asset value in the report. By selecting quarter or year values for the Time dimension you can display quarterly or annual totals in your report. Selecting 'Total Company' on the Organizational hierarchy paging dimension accesses aggregate values for that parent node.

See Chapter 12, "Using the Selector" for additional information on using this tool to select data from the database.

# **Seeded Reports**

The Budgeting & Planning application provides a series of seeded starter reports to help administrators prepare reports that can be distributed to end users.

This section provides the following information on seeded reports:

- Seeded Data and Dimension Value Selections Used in Generating Reports
- Prerequisites to Producing Reports
- Notes on Calculated Rows and Columns in OFA Reports
- **Customizing Seeded Reports**

- **Basic Report Formats**
- List of Seeded Reports

# Seeded Data and Dimension Value Selections Used in Generating Reports

The application does not seed values for the Time, Organizational Unit, and Chart of Accounts dimensions because each organization defines and implements different values for these dimensions.

The application does seed various attributes for the Chart of Accounts dimension that reflect processing parameters such as Account Type and Balance Sheet Model. To bypass the issue of not having seeded values for the Chart of Accounts dimension, the reports have been designed with seeded selections of Chart of Accounts dimension values based on their assigned Account Type and Balance Sheet Model. Once you define the attributes, the reports can successfully select the appropriate dimension values.

Making selections based on attributes is performed using the Tools components in the application's Selector dialog. Other Selector features are used in seeding dimension value selections for dimensions other than Chart of Accounts.

The following table provides information on seeded dimension value and formula selections that are used in the seeded standard reports provided with the application:

Dimension	Selected Values	
Organizational Unit	All organizational unit dimension values	
Forecast	Base Forecast dimension value	
Strategy	Momentum (or base strategy) dimension value	
Currency	Base Currency dimension value	

Dimension	Selected Values
Chart of Accounts	Reports that include all balance sheet line items use seeded selections based on account type values contained in the COA Account Type attribute. Accounts with the following account types are selected:
	Asset, Liability, or Equity
	<ul> <li>Reports on new volume originations use seeded selections based on balance sheet model values contained in the COA Balance Sheet Model attribute. Accounts with the following balance sheet models are selected:</li> </ul>
	Bullet Fixed, Amortizing Fixed, Amortizing Reprice, or Rollovers
	<ul> <li>Detailed income statement reports select all Chart of Accounts dimension values, and both summary and detailed income statement reports use some combination of seeded reporting formulas, dimensions, and dimension values provided with the application.</li> </ul>
	See the Reporting Dimensions, Dimension Values and Attributes and Income Statement Report Formulas sections of this chapter for more information.

In order to take advantage of these seeded selections and open them in the application you must complete the tasks outlined in the following section.

# **Prerequisites to Producing Reports**

The following implementation tasks must be performed before you can run, format, or copy the seeded reports.

- Create at least two years of Time dimension values. You must use the Maintain Time function in OFA to complete this task. The as-of-date must be defined for the FCST Data As Of Date attribute, and must reflect a monthly time bucket that falls in the second year of Time dimension values in order to open and process the comparative reports.
- Create and/or load your Organizational Unit and Chart of Accounts dimension values and hierarchies.
- Set the COA Account Type and COA Balance Sheet Model attributes for all appropriate Chart of Accounts values. You must use OFA to complete this task. The COA Account Type attribute must be defined for node-level dimension

values as well as leaf-level dimension values. The COA Balance Sheet Model attribute only needs to be defined for leaf-level dimension values.

- Populate the RPL Chart of Accounts attribute with Chart of Accounts values representing:
  - **Total Assets**
  - **Total Liabilities and Capital**
  - **Total Non-interest Income**
  - Total Non-interest Expense
  - Loan Loss Provision Expense
- Load historical, actual data values into the Express database. Solve the database to perform consolidations for the Time, Organizational Unit, and Chart of Accounts hierarchy node values.

The seeded reports, by default, suppress rows with zero or NA values, therefore you must complete this task so that rows are visible when you open the report. If historical data has not been loaded or solved either the report rows will not appear or certain rows will seem to be missing from the report.

To view reports provided for viewing over the Web, you must first distribute the appropriate reports to the shared database and to External Users using the OFA distribute structure dialog.

> **Note:** To preview a report format without loading data, turn off the zero or NA row suppression. This is done in the Report option dialog box, from the Tools menu.

### Notes on Calculated Rows and Columns in OFA Reports

Both seeded and user-defined reports created using OFA client/server software that make use of inserted rows and/or columns with formula calculations and row or column label overrides cannot be successfully opened intact using the OFA Web Client software. The inserted rows and columns, as well as any label overrides, will not be displayed when users open the reports in Budgeting & Planning or OFA Web Client.

The Comparative and Income Statement reports that were seeded in the previous release of Budgeting & Planning employed the OFA client/server feature of inserting rows and columns. Since the OFA Web Client does not support inserted

rows and columns, additional reports have been included in this release to provide comparable information for viewing over the Web. The new Web reports were created using a different definition approach. These reports are identified in the list of seeded reports later in this chapter with report names that start with either WebComp or Web Periodic.

The original reports have been retained and can still be used in the client/server version of OFA if desired.

### Displaying the Year Total Column in the Web-Enabled Version

Additionally, a certain technique employed in the previous release for seeding a selection for the Year Total time bucket on periodic reports does not successfully display the column in the reports when viewed over the Web after launching them from within Budgeting & Planning. In their original form, the reports display the Year total column when opened using the OFA client/server version, but do not display it when opened over the Web.

To revise the Time selection open the seeded report in the OFA client/server version, performing a File -> Save As operation, and adding the YearXX dimension value to the list of selected values from the list of available Time dimension values in the Selector.

After making the changes, distribute the modified reports to the shared database and External Users for viewing from within Budgeting & Planning.

### Using the Drill Down Feature for Reports

To use the reporting drill down feature open a seeded report and follow these steps:

- Open the Selector and choose the dimension you want to use with the drill down feature.
  - For most reports, this is the Chart of Accounts dimension.
- From the Organize By: list box select the Chart of Accounts hierarchy option.
- In the Selected box keep the node(s) or parent values that you want to display in the report.
- Close the Selector.
- From the Report menu select Drill to invoke the drill down feature.

For additional information see Chapter 12, "Using the Selector".

### **Customizing Seeded Reports**

You can re-format and customize seeded reports if necessary, or duplicate them for subsequent years. With the seeded report open, perform a File -> Save As operation to save the report to a new report name and make your modifications in the new report. This will retain the original reports in their seeded form in case you need to go back to them later.

You can make changes such as adjusting column widths, adding sub-titles and footers, or adding additional rows or columns to the reports if desired. For example, the Income Statement reports provided for viewing in the OFA client/server version require that additional rows with formulas be inserted so that you can calculate line items such as net interest income, total spread income, income taxes, and net income.

For additional instructions on making changes to these reports, refer to the *Oracle* Financial Analyzer User's Guide.

# **Basic Report Formats**

Each report incorporates one of the following formatting types:

Report Format	Explanation
12-Month Trend Report with Year Total (BP/OFA Web Client version and	The first twelve, monthly time bucket values and the corresponding Year Time bucket are returned based on the seeded Time dimension selection.
OFA client/server version)	See "Notes on Calculated Rows and Columns in OFA Reports" in this chapter for information on viewing the Year column over the Web.
Comparative Report (OFA client/server	Compares the first two Year Time bucket values using a seeded dollar variance column and a seeded percent variance column.
version)	See "Notes on Calculated Rows and Columns in OFA Reports" in this chapter for comments on viewing the Year column over the Web.
Comparative Report (BP/OFA Web Client version and client/server version)	Compares the Current Year and Last Year Time bucket values using seeded formulas for all columns. Current Year is determined using the Forecast as-of-date. Year values are returned and adjusted automatically as the Forecast as-of-date is moved forward across a year-end into a new year.

### **List of Seeded Reports**

The following tables lists the seeded reports included in this release. The first table reflects the reports seeded in the earlier version of Budgeting & Planning for use with OFA client/server software, and includes the variables and financial elements supporting each report. The Across, Down, and Paging dimensions indicate the placement of these dimensions in the report itself. The Periodic reports can also be viewed when launched from within the Web-enabled Budgeting & Planning application, but some modification is required to successfully view the Year columns. See "Displaying the Year Total Column in the Web-Enabled Version" in this chapter for detailed information on displaying Year columns.

### Seeded Reports From the Client/Server Version

The following table lists the seeded reports provided for the client/server version of Budgeting & Planning. Shaded reports have comparable versions in the Web-enabled release of the application. Refer to "Seeded Reports for the Web-Enabled Version" in this chapter for a list of those comparable reports.

Report Name	Variable Object Name	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
Periodic Average Balance Sheet	FS.FIN_DATA	F140	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Ending Balance Sheet	FS.FIN_DATA	F100	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Interest Rates	FS.FIN_DATA	F160	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Transfer Pricing Percentage Spreads	FS.FIN_DATA	N171	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Margin Analysis	FS.FIN_DATA	F160, F170, N171	Time	Chart of Accounts, Financial Element	Currency, Organizational Unit, Forecast, Strategy

Report Name	Variable Object Name	Financial Element		Down Dimension	Paging Dimension(s)
Comparative Average Balance Sheet	FS.FIN_DATA	F140	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Ending Balance Sheet	FS.FIN_DATA	F100	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Interest Rates	FS.FIN_DATA	F160	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Transfer Pricing Percentage Spreads	FS.FIN_DATA	N171	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Margin Analysis	FS.FIN_DATA	F160, F170, N171	Time	Chart of Accounts, Financial Element	Currency, Organizational Unit, Forecast, Strategy
Originations by Account	FS.FIN_DATA	F340	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Origination Spreads by Account	FS.FIN_DATA	F375	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Origination Spreads by Org Unit	FS.FIN_DATA	F375	Time	Organizational Unit	Currency, Chart of Accounts, Forecast, Financial Element, Strategy
Periodic Income Statement	FS.REG_INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
Periodic Transfer Pricing Spread Income Statement	FS.INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy

Report Name	Variable Object Name	Financial Element		Down Dimension	Paging Dimension(s)
Comparative Income Statement	FS.REG_INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
Comparative Transfer Pricing Spread Income Statement	FS.INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy

### **Seeded Reports for the Web-Enabled Version**

The following table lists the seeded reports included with this release for the Web-enabled version of Budgeting & Planning. These reports can be produced either when launched from within Budgeting & Planning or from within the client/server version of OFA.

Report Name	Formulas Used	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
WebComp Average Balance Sheet	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	F140	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
WebComp Ending Balance Sheet	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	F100	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
WebComp Interest Rates	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	F160	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy

Report Name	Formulas Used	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
WebComp TP	■ FinData Current Year	N171	FinData	Chart of Accounts	Currency,
Percentage Spreads	■ FinData Last Year		Formulas (4)		Organizational Unit, Forecast,
Spreads	■ Current Year Variance		(-)		Strategy
	<ul><li>Current Year Percent Variance</li></ul>				
WebComp	■ FinData Current Year	F160,	FinData	Chart of Accounts	Currency,
Margin Analysis	■ FinData Last Year	F170, N171	Formulas (4)		Organizational Unit. Forecast.
	■ Current Year Variance	11171			Strategy
•	<ul><li>Current Year Percent Variance</li></ul>				
WebComp Income	<ul> <li>Comp Income Stmt Current Year</li> </ul>	NA	FinData Formulas (4)	Income Statement	Currency, Organizational Unit, Forecast, Strategy
Statement	<ul> <li>Comp Income Stmt Last Year</li> </ul>				
	<ul> <li>Comp Income Stmt Variance</li> </ul>				
	<ul><li>Comp Income Stmt Percent Variance</li></ul>				
	■ (Embedded formulas)				
WebComp TP Spread Income	■ Comp Income Stmt Current Year	NA	FinData Formulas	Income Statement	Currency, Organizational
Statement	<ul><li>Comp Income Stmt Last Year</li></ul>		(4)		Unit, Forecast, Strategy
	<ul> <li>Comp Income Stmt Variance</li> </ul>				
	<ul> <li>Comp Income Stmt Percent Variance</li> </ul>				
	■ (Embedded formulas)				

Report Name	Formulas Used	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
Web Periodic Income Statement	■ Interest Income	NA	Time	FinData Formulas	Currency, Organizational Unit, Forecast, Strategy
	■ Interest Expense			(9)	
	■ Net Interest Income				
	<ul> <li>Loan Loss Provision</li> </ul>				
	<ul> <li>Non Interest Income</li> </ul>				
	<ul> <li>Non Interest Expense</li> </ul>				
	■ Income Before Taxes				
	<ul><li>Income Tax</li></ul>				
	<ul><li>Net Income</li></ul>				
	■ (Embedded formulas)				
Web Periodic TP	<ul> <li>Asset Spread Income</li> </ul>	NA	Time	FinData Formulas (9)	Currency, Organizational Unit, Forecast, Strategy
Spread Income Statement	<ul> <li>Liability &amp; Capital Spread Income</li> </ul>				
	<ul> <li>Total Spread Income</li> </ul>				
	<ul> <li>Loan Loss Provision</li> </ul>				
	<ul> <li>Non Interest Income</li> </ul>				
	<ul> <li>Non Interest Expense</li> </ul>				
	<ul><li>Net Income Before Taxes (TP)</li></ul>				
	■ Income Tax (TP)				
	■ Net Income (TP)				
	■ (Embedded formulas)				

# Reporting Dimensions, Dimension Values, and Attribute

This release of Budgeting & Planning includes a new, seeded attribute and seeded dimensions and dimension values, to support the Web-enabled production of seeded income statement reports.

# **Dimensions and Dimension Values**

The application includes the following two dimensions and associated dimension values:

### **Report Line Item Dimension**

	Description	Object Name
Dimension	Report Line Item	FS.REPORT_LINE
Dimension Values	Total Assets COA Value	TOTAL_ASSETS_COA
	Total Liabilities and Capital COA Value	TOTAL_LIAB_COA
	Total Non Interest Income COA Value	TOTAL_NIR_COA
	Total Non Interest Expense COA Value	TOTAL_NIE_COA
	Loan Loss Provision COA Value	LOAN_LOSS_PRO_COA

### **Income Statement Dimension**

	Description	Object Name
Dimension	Income Statement	FS.INCOME_STMT
Dimension Values	Interest Income	INTINCOME
	Interest Expense	INTEXPENSE
	Loan Loss Provision	LLPROVISION
	Net Interest Income	NETINTINC
	Non Interest Income	NONINTREV
	Non Interest Expense	NONINTEXP
	Income Before Taxes	INCBTAX
	Income Taxes	INCTAX
	Net Income	NETINC
	Asset Spread Income	ASSETSPRD
	Liability & Capital Spread Income	LIABCAPSPRD
	Total Spread Income	TOTSPRDINC

Description	Object Name
Income Before Taxes (TP)	INCBTAXTP
Income Taxes (TP)	INCTAXTP
Net Income (TP)	NETINCTP

### **Attribute**

Attribute	Description
RPL Chart of Accounts	The RPL Chart of Accounts attribute identifies the appropriate node-level dimension values from the Chart of Accounts dimension to reference or access data for the reporting line item in the income statement reports.
	Note: This attribute must be populated in order to produce the following seeded reports:
	■ WebComp Income Statement
	<ul> <li>WebComp Transfer Pricing Spread Income Statement</li> </ul>
	■ Web Periodic Income Statement
	■ Web Periodic Transfer Pricing Spread Income Statement

# **Income Statement Report Formulas**

This release of the Budgeting & Planning application includes pre-defined formulas that are used in the production of comparative and income statement reports as reflected in the List of Seeded Reports tables earlier in this chapter. These are formula variables, meaning the formulas created to calculate data needed in the reports are stored in the database and calculations are performed 'on the fly' when a report is opened up with the formula variable selected.

What is unique about income statements, whether based on transfer pricing spread income or the more traditional interest income minus interest expense view of net interest margin is that data residing in multiple financial elements are required to complete an income statement. Additionally, a spread-based income statement requires the calculation of transfer pricing spread income, where the formula for that calculation is different for an asset than for a liability.

The Budgeting & Planning application includes seeded formulas to generate variables for both views of the income statement.

The following formulas are included as seeded selections in the seeded reports:

Descriptions and Row Labels	Column Label	Object Name
Interest Income	INT INC	FS.INT_INC
Interest Expense	INT EXP	FS.INT_EXP
Loan Loss Provision	LLP	FS.LOAN_LOSS_PRO
Net Interest Income	NII	FS.NET_INT_INC
Non Interest Income	NIR	FS.NONINT_INC
Non Interest Expense	NIE	FS.NONINT_EXP
Income Before Taxes	IBT	FS.NET_INC_BT
Income Tax	Taxes	FS.INC_TAX
Net Income	Net Inc	FS.NET_INC
Asset Spread Income	Asst Spread	FS.ASST_SPD_INC
Liability & Capital Spread Income	Liab/Cap Spread	FS.LIAB_SPD_INC
Total Spread Income	Spread Inc	FS.SPD_INC
Net Income Before Taxes (TP)	IBT (TP)	FS.SPDNET_INC_BT
Income Tax (TP)	Taxes (TP)	FS.SPD_INC_TAX
Net Income (TP)	Net Inc (TP)	FS.SPD_NET_INC
Regular Income Statement	NA	FS.REG_INC_STMT
Spread Income Statement	NA	FS.INC_STMT
FinData Current Year	FinData CurYr	FS.CY_FIN_DATA
FinData Last Year	FinData LstYr	FS.LY_FIN_DATA
Current Year Variance	CurYr Variance	FS.CY_VARIANCE
Current Year Percent Variance	CurYr % Variance	FS.CY_VARPCT

The following formulas are also seeded in the database. Most of the formulas above include embedded references to these formulas:

Descriptions and Row Labels	Column Label	Object Name
Current Year	Current Year	FS.CURRENT_YEAR
Last Year	Last Year	FS.LAST_YEAR

The following section lists the detailed formula equations for all of the above formulas.

# **Detailed Reporting Formulas**

Object Name	Formula
FS.INT_INC	fs.reg_inc_stmt(fs.chrt_of_acct FS.COA.REP_LINE (fs.report_line 'TOTAL_ASSETS_COA'))
FS.INT_EXP	fs.reg_inc_stmt(fs.chrt_of_acct FS.COA.REP_LINE (fs.report_line 'TOTAL_LIAB_COA'))
FS.LOAN_LOSS_PRO	$fs.reg\_inc\_stmt(fs.chrt\_of\_acct\ FS.COA.REP\_LINE\ (fs.report\_line\ 'LOAN\_LOSS\_PRO\_COA'))$
FS.NET_INT_INC	fs.int_inc-fs.int_exp
FS.NONINT_INC	$fs.reg\_inc\_stmt(fs.chrt\_of\_acct\ FS.COA.REP\_LINE\ (fs.report\_line\ 'TOTAL\_NIR\_COA'))$
FS.NONINT_EXP	fs.reg_inc_stmt(fs.chrt_of_acct FS.COA.REP_LINE (fs.report_line 'TOTAL_NIE_COA'))
FS.NET_INC_BT	$fs.net\_int\_inc-fs.loan\_loss\_pro+fs.non\_int\_inc-fs.non\_int\_exp$
FS.INC_TAX	fs.net_inc_bt*0.34
FS.NET_INC	fs.net_inc_bt-fs.inc_tax
FS.ASST_SPD_INC	$fs.inc\_stmt(fs.chrt\_of\_acct\ FS.COA.REP\_LINE\ (fs.report\_line\ "TOTAL\_ASSETS\_COA"))$
FS.LIAB_SPD_INC	fs.inc_stmt(fs.chrt_of_acct FS.COA.REP_LINE (fs.report_line 'TOTAL_LIAB_COA'))
FS.SPD_INC	fs.asst_spd_inc+fs.liab_spd_inc
FS.SPDNET_INC_BT	fs.spd_inc+fs.non_int_inc-fs.non_int_exp
FS.SPD_INC_TAX	fs.spdnet_inc_bt*0.34
FS.SPD_NET_INC	fs.spdnet_inc_bt-fs.inc_tax

#### Formula: FS.REG\_INC\_STMT

IF FS.COA.ACCT\_TYPE EQ 'ASSET' -

THEN-

(FS.FIN\_DATA(FS.FIN\_ELEMF420')+(FS.FIN\_DATA(FS.FIN\_ELEM'F900'))+ -(FS.FIN DATA(FS.FIN ELEM 'F910'))+(FS.FIN DATA(FS.FIN ELEM 'F920'))) -

ELSE -

IF FS.COA.ACCT\_TYPE EQ 'LIABILITY' -

THEN ((FS.FIN DATA(FS.FIN ELEM 'F420')+FS.FIN DATA(FS.FIN ELEM 'F920'))) -

ELSE -

IF FS.COA.ACCT\_TYPE EQ 'DIR.NON.INT.INC' -

THEN FS.FIN\_DATA(FS.FIN\_ELEM 'F455') -

ELSE -

IF FS.COA.ACCT\_TYPE EQ 'DIR.NON.INT.EXP' -

THEN FS.FIN\_DATA(FS.FIN\_ELEM 'F457') -

ELSE NA

#### Note the following:

- As the above formula is dependent upon an account being designated as ASSET, LIABILITY, EQUITY, DIR.NON.INT.INC or DIR.NON.INT.EXP, the attribute COA Account Type must be defined in the Maintain -> Attribute interface in OFA before including the variables in a report.
- If you are using the Allocated Non Interest Income and/or Allocated Non Interest Expense account types, the above formula will need to be modified to add those account types. Use OFA for this purpose if necessary.

#### Formula: FS.INC STMT

IF FS.COA.ACCT TYPE EQ 'ASSET' -

THEN-

(FS.FIN\_DATA(FS.FIN\_ELEM'F420')+(FS.FIN\_DATA(FS.FIN\_ELEM'F900'))+ -(FS.FIN\_DATA(FS.FIN\_ELEM'F910'))+(FS.FIN\_DATA(FS.FIN\_ELEM'F920')))--(FS.FIN DATA(FS.FIN ELEM 'F450'))-

ELSE-

IF FS.COA.ACCT\_TYPE EQ 'LIABILITY'-

THEN-

(FS.FIN DATA(FS.FIN ELEM'F450')-(FS.FIN DATA(FS.FIN ELEM'F420')+FS.FIN DATA(FS.FIN ELEM 'F920')))-

ELSE-

IF FS.COA.ACCT\_TYPE EQ 'EQUITY'-

THEN FS.FIN DATA(FS.FIN ELEM 'F450')-

ELSE-

IF FS.COA.ACCT\_TYPE EQ 'DIR.NON.INT.INC'-

THEN FS.FIN\_DATA(FS.FIN\_ELEM 'F455')-

ELSE -

IF FS.COA.ACCT\_TYPE EQ 'DIR.NON.INT.EXP'-

THEN FS.FIN DATA(FS.FIN ELEM 'F457')-

ELSE NA

#### Note the following:

- As the above formula is dependent upon an account being designated as ASSET, LIABILITY, EQUITY, DIR.NON.INT.INC or DIR.NON.INT.EXP, the attribute COA Account Type must be defined in the Maintain -> Attribute interface in OFA before including the variables in a report.
- If you are using the Allocated Non Interest Income and/or Allocated Non Interest Expense account types, the above formula will need to be modified to add those account types. Use OFA for this purpose if necessary.

#### Formula: FS.WCIS LY

IF FS.INCOME STMT EQ 'INTINCOME' THEN FS.INT INC (TIME FS.LAST YEAR) ELSE -IF FS.INCOME\_STMT EQ 'INTEXPENSE' THEN FS.INT\_EXP (TIME FS.LAST\_YEAR) ELSE -IF FS.INCOME STMT EQ 'NETINTINC' THEN FS.NET INT INC (TIME FS.LAST YEAR) -ELSE IF FS.INCOME STMT EQ 'LLPROVISION' THEN FS.LOAN LOSS PRO (TIME -FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'NONINTREV' THEN FS.NONINT INC (-TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'NONINTEXP' THEN -FS.NONINT\_EXP (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'INCBTAX' THEN -FS.NET\_INC\_BT (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'INCTAX' THEN -FS.INC TAX (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'NETINC' THEN -FS.NET INC (TIME FS.LAST YEAR) ELSE NA

#### Formula: FS.WCIS VAR

IF FS.INCOME STMT EQ 'INTINCOME' THEN FS.INT INC (TIME FS.CURRENT YEAR) --FS.INT INC (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'INTEXPENSE' THEN -FS.INT EXP (TIME FS.CURRENT YEAR) - FS.INT EXP (TIME FS.LAST YEAR) ELSE IF -FS.INCOME\_STMT EQ 'NETINTINC' THEN FS.NET\_INT\_INC (TIME FS.CURRENT\_YEAR) - -FS.NET INT INC (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'LLPROVISION' -THEN FS.LOAN\_LOSS\_PRO (TIME FS.CURRENT\_YEAR) - FS.LOAN\_LOSS\_PRO (TIME -FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'NONINTREV' THEN FS.NONINT\_INC (-TIME FS.CURRENT\_YEAR) - FS.NONINT\_INC (TIME FS.LAST\_YEAR) ELSE IF -FS.INCOME STMT EQ'NONINTEXP'THEN FS.NONINT EXP (TIME FS.CURRENT YEAR) --FS.NONINT\_EXP (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'INCBTAX' THEN -FS.NET INC BT (TIME FS.CURRENT YEAR) - FS.NET INC BT (TIME FS.LAST YEAR) -ELSE IF FS.INCOME\_STMT EQ 'INCTAX' THEN FS.INC\_TAX (TIME FS.CURRENT\_YEAR) -- FS.INC\_TAX (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'NETINC' THEN -FS.NET INC (TIME FS.CURRENT YEAR) - FS.NET INC (TIME FS.LAST YEAR) ELSE NA

#### Formula: FS.WCIS PCTVAR

IF FS.INCOME STMT EQ 'INTINCOME' THEN 100\*((FS.INT INC (TIME -FS.CURRENT YEAR) - FS.INT INC (TIME FS.LAST YEAR))/ FS.INT INC (TIME -FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'INTEXPENSE' THEN 100\*((-FS.INT EXP (TIME FS.CURRENT YEAR) - FS.INT EXP (TIME FS.LAST YEAR)) / -FS.INT EXP (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'NETINTINC' THEN -100\*((FS.NET INT INC (TIME FS.CURRENT YEAR) - FS.NET INT INC (TIME -FS.LAST YEAR)) / FS.NET INT INC (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT -EQ 'LLPROVISION' THEN 100\*((FS.LOAN LOSS PRO (TIME FS.CURRENT YEAR) --FS.LOAN LOSS PRO (TIME FS.LAST YEAR)) / FS.LOAN LOSS PRO (TIME FS.LAST YEAR-)) ELSE IF FS.INCOME STMT EQ 'NONINTREV' THEN 100\*((FS.NONINT INC (TIME -FS.CURRENT YEAR) - FS.NONINT INC (TIME FS.LAST YEAR)) / FS.NONINT INC (TIME -FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'NONINTEXP' THEN 100\*((-FS.NONINT EXP (TIME FS.CURRENT YEAR) - FS.NONINT EXP (TIME FS.LAST YEAR))/ -FS.NONINT EXP (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'INCBTAX' -THEN 100\*((FS.NET INC BT (TIME FS.CURRENT YEAR) - FS.NET INC BT (TIME -FS.LAST YEAR)) / FS.NET INC BT (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT -EQ 'INCTAX' THEN 100\*((FS.INC TAX (TIME FS.CURRENT YEAR) - FS.INC TAX (-TIME FS.LAST\_YEAR)) / FS.INC\_TAX (TIME FS.LAST\_YEAR)) ELSE IF -FS.INCOME\_STMT EQ 'NETINC' THEN 100\*((FS.NET\_INC (TIME FS.CURRENT\_YEAR) - -FS.NET INC (TIME FS.LAST YEAR)) / FS.NET INC (TIME FS.LAST YEAR)) ELSE NA

#### Formula: FS.WCISTP\_CY

IF FS.INCOME STMT EQ 'ASSETSPRD' THEN FS.ASST SPD\_INC (TIME -FS.CURRENT YEAR) ELSE IF FS.INCOME STMT EQ 'LIABCAPSPRD' THEN -FS.LIAB SPD INC (TIME FS.CURRENT YEAR) ELSE IF FS.INCOME STMT EQ -'TOTSPRDINC' THEN FS.SPD INC (TIME FS.CURRENT YEAR) ELSE IF FS.INCOME STMT -EQ 'LLPROVISION' THEN FS.LOAN\_LOSS\_PRO (TIME FS.CURRENT\_YEAR) ELSE IF -

#### Formula: FS.WCISTP CY

FS.INCOME STMT EQ 'NONINTREV' THEN FS.NONINT INC (TIME FS.CURRENT YEAR) -ELSE IF FS.INCOME\_STMT EQ 'NONINTEXP' THEN FS.NONINT\_EXP (TIME -FS.CURRENT YEAR) ELSE IF FS.INCOME STMT EQ 'INCBTAXTP' THEN -FS.SPDNET INC BT (TIME FS.CURRENT YEAR) ELSE IF FS.INCOME STMT EQ -'INCTAXTP' THEN FS.SPD INC TAX (TIME FS.CURRENT YEAR) ELSE IF -FS.INCOME STMT EQ 'NETINCTP' THEN FS.SPD NET INC (TIME FS.CURRENT YEAR) -**ELSE NA** 

#### Formula: FS.WCISTP\_LY

IF FS.INCOME STMT EQ 'ASSETSPRD' THEN FS.ASST SPD INC (TIME FS.LAST YEAR) -ELSE IF FS.INCOME STMT EQ 'LIABCAPSPRD' THEN FS.LIAB SPD INC (TIME -FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'TOTSPRDINC' THEN FS.SPD INC (TIME -FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'LLPROVISION' THEN -FS.LOAN\_LOSS\_PRO (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'NONINTREV' -THEN FS.NONINT\_INC (TIME FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ -'NONINTEXP' THEN FS.NONINT EXP (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT -EQ 'INCBTAXTP' THEN FS.SPDNET INC BT (TIME FS.LAST YEAR) ELSE IF -FS.INCOME\_STMT EQ 'INCTAXTP' THEN FS.SPD\_INC\_TAX (TIME FS.LAST\_YEAR) ELSE -IF FS.INCOME\_STMT EQ 'NETINCTP' THEN FS.SPD\_NET\_INC (TIME FS.LAST\_YEAR) -ELSE NA

#### Formula: FS.WCISTP VAR

IF FS.INCOME STMT EQ 'ASSETSPRD' THEN FS.ASST SPD INC (TIME -FS.CURRENT YEAR) - FS.ASST SPD INC (TIME FS.LAST YEAR) ELSE IF -FS.INCOME STMT EQ 'LIABCAPSPRD' THEN FS.LIAB SPD INC (TIME FS.CURRENT YEAR-) - FS.LIAB SPD INC (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ -'TOTSPRDINC' THEN FS.SPD\_INC (TIME FS.CURRENT\_YEAR) - FS.SPD\_INC (TIME -

#### Formula: FS.WCISTP VAR

FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'LLPROVISION' THEN -FS.LOAN LOSS PRO (TIME FS.CURRENT YEAR) - FS.LOAN LOSS PRO (TIME -FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'NONINTREV' THEN FS.NONINT\_INC (-TIME FS.CURRENT YEAR) - FS.NONINT INC (TIME FS.LAST YEAR) ELSE IF -FS.INCOME\_STMT EQ 'NONINTEXP' THEN FS.NONINT\_EXP (TIME FS.CURRENT\_YEAR) - -FS.NONINT EXP (TIME FS.LAST YEAR) ELSE IF FS.INCOME STMT EQ 'INCBTAXTP' -THEN FS.SPDNET\_INC\_BT (TIME FS.CURRENT\_YEAR) - FS.SPDNET\_INC\_BT (TIME -FS.LAST\_YEAR) ELSE IF FS.INCOME\_STMT EQ 'INCTAXTP' THEN FS.SPD\_INC\_TAX (-TIME FS.CURRENT\_YEAR) - FS.SPD\_INC\_TAX (TIME FS.LAST\_YEAR) ELSE IF -FS.INCOME STMT EQ 'NETINCTP' THEN FS.SPD NET INC (TIME FS.CURRENT YEAR) --FS.SPD\_NET\_INC (TIME FS.LAST\_YEAR) ELSE NA

#### Formula: FS.WCISTP\_PCTVAR

IF FS.INCOME\_STMT EQ 'ASSETSPRD' THEN 100\*((FS.ASST\_SPD\_INC (TIME -FS.CURRENT YEAR) - FS.ASST SPD INC (TIME FS.LAST YEAR))/ FS.ASST SPD INC (-TIME FS.LAST\_YEAR)) ELSE IF FS.INCOME\_STMT EQ 'LIABCAPSPRD' THEN 100\*((-FS.LIAB SPD INC (TIME FS.CURRENT YEAR) - FS.LIAB SPD INC (TIME -FS.LAST\_YEAR)) / FS.LIAB\_SPD\_INC (TIME FS.LAST\_YEAR)) ELSE IF -FS.INCOME STMT EQ 'TOTSPRDINC' THEN 100\*((FS.SPD INC (TIME FS.CURRENT YEAR-) - FS.SPD INC (TIME FS.LAST YEAR))/ FS.SPD INC (TIME FS.LAST YEAR)) ELSE -IF FS.INCOME STMT EQ 'LLPROVISION' THEN 100\*((FS.LOAN LOSS PRO (TIME -FS.CURRENT\_YEAR) - FS.LOAN\_LOSS\_PRO (TIME FS.LAST\_YEAR))/ FS.LOAN\_LOSS\_PRO -(TIME FS.LAST\_YEAR)) ELSE IF FS.INCOME\_STMT EQ 'NONINTREV' THEN 100\*((-FS.NONINT INC (TIME FS.CURRENT YEAR) - FS.NONINT INC (TIME FS.LAST YEAR))/-FS.NONINT INC (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'NONINTEXP' -THEN 100\*((FS.NONINT EXP (TIME FS.CURRENT YEAR) - FS.NONINT EXP (TIME -FS.LAST YEAR)) / FS.NONINT EXP (TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT -EQ 'INCBTAXTP' THEN 100\*((FS.SPDNET\_INC\_BT (TIME FS.CURRENT\_YEAR) - -FS.SPDNET\_INC\_BT (TIME FS.LAST\_YEAR))/ FS.SPDNET\_INC\_BT (TIME FS.LAST\_YEAR-)) ELSE IF FS.INCOME STMT EQ 'INCTAXTP' THEN 100\*((FS.SPD\_INC\_TAX (TIME -FS.CURRENT\_YEAR) - FS.SPD\_INC\_TAX (TIME FS.LAST\_YEAR))/ FS.SPD\_INC\_TAX (-TIME FS.LAST YEAR)) ELSE IF FS.INCOME STMT EQ 'NETINCTP' THEN 100\*((-FS.SPD NET INC (TIME FS.CURRENT YEAR) - FS.SPD NET INC (TIME FS.LAST YEAR)-)/ FS.SPD\_NET\_INC (TIME FS.LAST\_YEAR)) ELSE NA

#### Formula: DSC FS.WCIS CY

IF FS.INCOME\_STMT EQ 'INTINCOME'-THEN FS.INT INC (TIME FS.CURRENT YEAR)-ELSE IF FS.INCOME STMT EQ 'INTEXPENSE'-

#### Formula: DSC FS.WCIS\_CY

THEN FS.INT\_EXP (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME STMT EQ 'NETINTINC'-

THEN FS.NET\_INT\_INC (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME\_STMT EQ 'LLPROVISION'-

THEN FS.LOAN\_LOSS\_PRO (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME\_STMT EQ 'NONINTREV'-

THEN FS.NONINT\_INC (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME\_STMT EQ 'NONINTEXP'-

THEN FS.NONINT\_EXP (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME\_STMT EQ 'INCBTAX'-

THEN FS.NET\_INC\_BT (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME STMT EQ 'INCTAX'-

THEN FS.INC\_TAX (TIME FS.CURRENT\_YEAR)-

ELSE IF FS.INCOME\_STMT EQ 'NETINC'-

THEN FS.NET\_INC (TIME FS.CURRENT\_YEAR)-

ELSE NA

# **Administering Planning Item Access and Programs**

Administering planning item access and programs means administrators have the option of enabling end-user access to certain seeded planning items as well as user-defined planning items and custom programs created during implementation.

With this functionality, end users can now perform a majority of, if not all, the budget-related tasks solely through the Budgeting & Planning interface.

This chapter explains how to set up end-user access, presenting the following topics:

- Using a Catalog-Driven Interface Approach
- **Seeded Catalog Entries**
- Describing the FS.FDI\_CATALOG Database Catalog
- Setting Up Planning Item and Custom Program Access
- **Administering Status For Your Custom Programs**

# Using a Catalog-Driven Interface Approach

The Java interface has been programmatically modified to read a series of entries or properties contained in a new database catalog called FS.FDI\_CATALOG. These properties define:

- Planning item accessibility from within the Budgeting & Planning application, whether seeded or user-defined
- Default interface dimension and dimension value display

- Host and dependent planning item relationships
- How to launch custom calculations from common interface icons
- How to access and launch custom programs from the Options menu

A catalog-driven approach enables System Administrators to allow user-level access to different plan components and custom programs by maintaining a set of entries in the new catalog.

The new catalog, FS.FDI\_CATALOG, is dimensioned by the following:

Dimension	Description
FS.FDI_ENTRY	This dimension stores the name of the planning items (variables) you want to be accessible through the interface.
	You can view this dimension in Oracle Financial Analyzer (OFA) as BP FDI Access.
FS.FDI_PROP	This dimension stores the properties of each planning item included in the FS.FDI_ENTRY dimension.
	You cannot view this dimension in OFA.

The following section describes seeded entries for FS.FDI\_CATALOG.

# **Seeded Catalog Entries**

The application seeds access to four different planning items. These are:

Description	Express Object Name
Financial Plans	FS.FIN_DATA
Mix Override	FS.MIX_OVERRIDE
Capital Expenditures	FS.CAP_PLAN_DATA
Interest Rates	FS.INTEREST_RATE

**Note:** Each of these planning items existed in previous releases with different descriptions. For this release the descriptions have been modified to make them more generic, making it easier for users to interpret what the planning item represents.

#### **About the Capital Expenditures Planning Item**

Access to the Capital Expenditures planning item is seeded for this release, however, this planning item currently has limited functionality.

For this release you can use the planning item to collect inputs of expected asset purchases at the business unit level and set timing assumptions during the planning horizon. Programs to convert this information into projected income statement and balance sheet line items (such as depreciation expense, furniture and equipment balances) are not provided in this release.

If you choose not to create custom programs for this planning item and you do not want to collect this type of data use OFA to delete the Capital Expenditures dimension value from the BP FDI Access dimension.

#### Seeded FS.FDI PROP Entries

The following table includes entries that have been seeded in the FS.FDI\_ CATALOG for this release. Use this table as a reference point for the detailed descriptions of FS.FDI PROP and FS.FDI ENTRY, which are discussed in the sections that follow.

> **Caution:** Through FS.FDI\_CATALOG you can access and modify all properties for the seeded planning items. *Do not modify the values* for the Financial Plans (FS.FIN\_DATA) and Maturity Mix Assumption (FS.MIX\_OVERRIDE) entries. Doing so may result in problems with the interface or may cause the application to generate inaccurate or incomplete data, invalidating your budget and forecast data.

### Reference Table for FS.FDI\_CATALOG

Note that blank cells in this table represent NA values.

	FS.FDI_ENTRY			
FS.FDI_PROP	FS.FIN_DATA	FS.MIX_OVERRIDE	FS.CAP_PLAN_DATA	FS.INTEREST_RATE
DATA_SRC	FS.FD_DATA	FS.MIX_DATA	FS.CAP_PLAN_DATA	FS.INTEREST_RATE
INIT_PRG		FS.MD_INIT		FS.IR_INIT
DEPENDENT	NO	YES	NO	YES
AUTO_DIM	FS.FIN_ELEM	FS.MIX_ELEMENT		
AUTO_DIM_PRG	FS.AUTO_FIN_DATA	FS.AUTO_MIX_DATA		
ACROSS_DIM	TIME	FS.MIX_BREAKOUT	TIME	TIME
DOWN_DIM	FS.FIN_ELEM	FS.MIX_ELEMENT	FS.FIN_ELEM	FS.RATE_TERM
SELECT_ACROSS_DIM	FS.ORG_UNIT		TIME	TIME
SELECT_DOWN_DIM	TIME		FS.FIN_ELEM	FS.RATE_TERM
CALC	FS.PROCESS.COAS			
CALC_PARTIAL	FS.PROCESS.COAS			
CALC_FULL	FS.PROCESS.COAS			
SAVE_PRG	FS.FD_SAVE			
SUBMIT_PRG	FS.FD_SUBMIT	FS.SB_CHANGES	FS.SB_CHANGES	FS.SB_CHANGES
RW_SRC	FS.FD_ACCESS	FS.MD_ACCESS	FS.CP_ACCESS	FS.IR_ACCESS
CONJ_DIM	FS.CUJO			
WRTBACK_PRG	FS.DATA_WRITE	FS.DATA_WRITE	FS.GN_DATA_WRITE	FS.GN_DATA_WRITE
APP_SRC		FS.MD_VAR_SOURCE		
WRITE_SRC	FS.CUJO.DECIMAL1	FS.MIX_OVERRIDE	FS.CAP_PLAN_DATA	FS.INTEREST_RATE
CUST_PRG				
CUST_PRG_DESC				
VALIDATION_PRG				
DEPENDENT_FDI	FS.MIX_OVERRIDE			
	FS.INTEREST_RATE			
ADMIN				

# Describing the FS.FDI\_CATALOG Database Catalog

This section provides detailed information on the dimensions of the FS.FDI\_ CATALOG.

Access FS.FDI\_CATALOG through Express Administrator.

Note the following when adding access to additional seeded or user-defined planning items as well as to custom programs:

Multi-Line Rows for FS.FDI_PROP	The data type for every row in FS.FDI_PROP is multi-line text. Values for some properties, however, require a single rather than multi-line entry.
	An error message does not appear if you violate this constraint. Therefore, note carefully which properties allow multi-line entries and which require single-line entries. These requirements are defined in the Single/Multi column of the table in this section.
	Single-line entries are acceptable for a multi-line data type.
Ordering of Properties	The order in which the properties appear in the following table is the order of appearance in FS.FDI_CATALOG.

Host and Dependent Planning Items	Host and dependent planning items are interrelated. A dependent planning item provides information related to a host planning item and can only be opened from the host planning item interface.
	If a host and dependant planning item contain the same dimension, the dimension values selected for the host planning item become the same dimension values displayed in the dependent planning item, unless modified by the program identified in the INIT_PRG property of the dependent planning item.
Modifying Seeded Programs	You can use seeded programs as the foundation for custom programs. Contact Customer Support for information on how to access seeded programs.
Mandatory Entries	Entries for some properties are required. This information is provided in the following table and also in the section "Mandatory and Non-Mandatory Dimension Values Listed", in this chapter.
Non-Mandatory Entries	For non-mandatory entries you can leave the 'cell' at the intersection of the planning item and property empty. FS.FDI_CATALOG treats this as NA.

# Describing the FS.FDI\_PROP Dimension

The following table describes, in detail, each of the dimension values for the FS.FDI\_PROP dimension.

Property Object Name	Description	Single/ Multi	Req'd
DATA_SRC	This property specifies the data source object from which the application's main forecasting window or dependent interfaces, such as the Maturity Mix Assumption interface, read and display data.	Single	Yes
	For FS.FIN_DATA and FS.MIX_OVERRIDE note that, rather than referencing the planning item itself, the values for this property represent a formula that controls data collection from multiple sources rather than a single source.		
	If data for your planning item comes from a single source, reference the planning item itself, such as FS.CAP_PLAN_DATA or FS.INTEREST_RATE.		
INIT_PRG	Use this property to specify a program that initializes special status needs for dependent planning items. Use this program to further refine or filter selections made in the Selector.	Single	No
	An example of such a program is the filtering that occurs on dimension values for the Mix Override interface. The Mix Override interface displays only leaf values, even though an end user may have chosen node values as well as leaf values in the Selector. The FS.MD_INIT program filters out the node values before passing data to the interface.		
	This property is intended primarily for use with dependent planning items. For host planning items this property could actually control what is available for selection from the Selector rather than filtering selections before passing the data to the interface.		

Property Object Name	Description	Single/ Multi	Req'd
DEPENDENT	A dependent planning item holds information related to a host planning item.	Single	No
	This property specifies whether the planning item is a host or a dependent. The default setting is NO, meaning that the planning item is a host. A YES value means the planning item is a dependent.		
	If an object is a dependent planning item you also need to enter the object name of the planning item in the DEPENDENT_FDI property of the host planning item.		
	A further distinction between a host and dependent planning item is that a host planning item can be accessed from the Planning Item Selector when logging in to the application or from the Plan Menu option in the main forecasting window. A dependent planning item can only be accessed from the Options menu of its associated host interface when the host planning item is open.		
	An example of a dependent planning item is Mix Override (FS.MIX_OVERRIDE), which has, as its host, Financial Plans (FS.FIN_DATA).		
AUTO_DIM	Controls which dimensions, if any, should not appear in the Selector. The values for such dimensions are selected programmatically, rather than by an end user through the Selector.	Multi	No
	The Financial Element dimension of the Financial Plans (FS.FIN_DATA) planning item is an example of an AUTO_DIM.		

Property Object Name	Des	scription			Single/ Multi	Req'd
AUTO_DIM_PRG			ne program that selects the appropriate the dimension designated as AUTO_DIM.		Single	No
	For example, the financial elements displayed in the main forecasting window are selected by a program that associates relevant financial elements to the chart of accounts selected. The AUTO_DIM program for Financial Plans (FS.FIN_DATA) is FS.AUTO_FIN_DATA.  If you designate either a single dimension or multiple dimensions as					
	automatic, you must also create a program to control the selection of the values you want displayed in the interface. Design your program to select the values, for each automatic dimension, in a single operation, as shown in the following table:					
		AUTO_DIM Property	AUTO_DIM_PRG Property			
		A	X			
		В				
		С				
ACROSS_DIM	Designates the dimension whose values are displayed across the top (columns) of the grid when the interface first opens.					Yes
DOWN_DIM	Designates the dimension whose values are displayed down the side (rows) of the grid when the interface first opens.					Yes
SELECT_ACROSS_DIM	Associated with the Selector. This entry designates the dimension that appears first when the Selector is launched.				Single	Yes
	The purpose of this property is to select one of the two most-commonly used dimensions from the planning item. This relieves an end user from having to select this dimension whenever viewing data for the associated planning item.					
	Note the following:					
		You cannot use for this property				
	<ul> <li>Required for a host planning item but not a dependent planning item</li> </ul>					

Property Object Name	Description		Req'd
SELECT_DOWN_DIM	Also associated with the Selector. This entry designates the next dimension in the list of dimensions available for selection in the Selector.	Single	Yes
	The purpose of this property is to select one of the two most-commonly used dimensions from the planning item. This relieves an end user from having to select this dimension whenever viewing data for the associated planning item.		
	Note the following:		
	You cannot use a dimension listed in the AUTO_DIM property for this property		
	<ul> <li>Required for a host planning item but not a dependent planning item</li> </ul>		

Property Object Name	Description	Single/ Multi	Req'd
CALC	This property designates the calculation program you want called when an end user selects the Calculate icon or Calculate from Options in the Menu bar.	Single	No
	The calculations launched from the CALC property depend on:		
	■ The custom program you write for this property		
	<ul> <li>The planning item to which you have assigned this calculation program through FDI_CATALOG, and;</li> </ul>		
	Which planning item interface is active (open) when the end user selects this calculation method		
	For seeded or user-defined planning items (other than the Financial Plans planning item) designate the program you want called by entering the program name at the intersection of the CALC property and planning item. End users launch this custom program when they select either the Calculate icon or the Calculate option in the Options menu selection of the interface for the active planning item.		
	Note that, except for the planning item name that appears in the upper right corner of the interface, the fact that the calculations might behave differently, depending on the planning item selected, is not apparent to the end user. For more information, refer to the section "Interface Icons and Menu Items" in this chapter.		
	For Financial Plans (FS.FIN_DATA), the program FS.PROCESS.COAS runs calculations with No Solve, Partial Solve, and Full Solve, which are driven by entries residing in the conjoint dimension FS.CUJO. This particular property (CALC) runs calculations for the No Solve option.		
	You can set a global restriction on the use of this program by any end user by entering NA for this property.		
	If you enter NA or omit a calculation program altogether from the planning item this causes the associated icon and calculation option in the Options Menu to appear greyed out when you open the planning item.		

Property Object Name	Description	Single/ Multi	Req'd
CALC_PARTIAL	This property designates the calculation program you want called when an end user selects the Calculate with Partial Solve icon or this calculation method from Options in the Menu bar.	Single	No
	You can set a global restriction on the use of this program by any end user by entering NA for this property.		
	As with the CALC property, entering NA or omitting a program for this property causes the associated icon and Options menu selection to appear greyed out.		
	For Financial Plans (FS.FIN_DATA), the program FS.PROCESS.COAS runs calculations for Calculate with Partial Solve from this property.		
CALC_FULL	This property designates the calculation program you want called when an end user selects the Calculate with Full Solve icon or this calculation method from Options in the Menu bar.	Single	No
	You can set a global restriction on the use of this program by any end user by entering NA for this property.		
	As with the CALC and CALC_PARTIAL properties, entering NA or omitting a program for this property causes the associated icon and Options menu selection to appear greyed out.		
	For Financial Plans (FS.FIN_DATA), the program FS.PROCESS.COAS runs calculations for Calculate with Full Solve from this property.		

Property Object Name	Description	Single/ Multi	Req'd
SAVE_PRG	Use this property to designate a program that determines whether an operation needs to be performed by the end user before saving data to the database. This program verifies that an end-user's data entries and calculated results are ready to be saved.	Single	No
	For example, in the Financial Plans (FS.FIN_DATA) planning item, if an end user inputs data without running one of three calculation routines (No Solve, Partial Solve, or Full Solve) the application does not perform the Save function until the end user either runs a calculation routine or instructs the application to undo the entries.		
	If all conditions for saving data are met, the program should return a value of Yes, which results in the data being submitted to the shared database through the task processor. If the required conditions are not met, the program should return a value of No, which causes the interface to abort the process. The end user needs to take corrective action before selecting Save, which launches the program again.		
	For the Financial Plans (FS.FIN_DATA) planning item the save program is FS.FD_SAVE. The program looks for entries in FS.CUJO (conjoint dimension). If entries are located, the Save function requires the end user to either run a calculation routine or undo inputs before continuing. If FS.CUJO is empty the Save function runs without interruption.		
SUBMIT_PRG	The program you input for this property writes data to an EIF file (or files), which is the Save function for the application. The data is then sent to the task processor for uploading to the shared database.		Yes
	A default program is provided for this property which automatically identifies the planning item object name, any automatic dimensions, and dimension values in status, then creates an EIF file(s).		
	Before the EIF file is created the default program sets the status of each of the entries in AUTO_DIM as follows:		
	All values in status for non-hierarchical dimensions		
	All leaves in status for hierarchical dimensions		
	The default program sets the status for the Time dimension to all future time periods regardless of current status		

Property Object Name	Description			Single/ Multi	Req'd
RW_SRC	cells in the grid are re here should be dimer source object identifie	ead-only or read asioned by the sa ed in the DATA_ las are provided	for use with the seeded	Single	Yes
	Planning Item	Formula	Action		
	FS.FIN_DATA	FS.FD_Access	Calls program to determine RO, RW		
	FS.MIX_OVERRIDE	FS.MD_Access	Calls program to determine RO, RW		
	FS.CAP_PLAN_DATA	FS.CP_Access	Returns YES		
	FS.INTEREST_RATE	FS.IR_Access	Returns NO		
	variables FS.FE_WRI FS.FD_Access and FS written to read these for cells in the grid. The seeded formula for	FEABLE and FSMD_Access call variables and de or FS.CAP_PLA	E) is controlled by the database ME_WRITEABLE. The formulas programs that have been termine the appropriate status		
	of YES, meaning that The seeded formula f of NO, meaning that	or FS.INTEREST	_RATE returns a default value		
	To control access to eitems in the database.	ither user-define , create new forn	d or other seeded planning nulas that are dimensioned by ce object listed in the DATA_		
	either return a value of establish read/write s custom formula or a of	of YES (read/wr status for indivic custom variable	s in the grid, the formulas can ite) or NO (read-only). To dual cells in the grid, create a that controls read/write access asions and dimension values in		
	Use Express Adminis programs.	trator to create t	hese formulas, variables, and		

Property Object Name	Description	Single/ Multi	Req'd
CONJ_DIM	If you want to track data entered to a planning item through the interface, it is necessary to create a new conjoint dimension.		No
	For the Financial Plans (FS.FIN_DATA) planning item, the conjoint dimension used to generate a list of entries is FS.CUJO. When a user selects Calculate, Calculate with Partial Solve, or Calculate with Full Solve the program (FS.PROCESS.COAS) reads FS.CUJO to determine the entries on which to process calculations.		
	To employ a similar process for tracking entries you want to process using custom program calculations, create an FS.CUJO-like conjoint dimension. This dimension should accumulate entries, and is the dimension that your custom program should read to determine which entries to process.		
	In addition to creating a custom conjoint dimension and custom program calculations, you must also create a program to write data entries to the conjoint dimension. This program is identified in the WRTBACK_PRG property.		
WRTBACK_PRG	This property identifies the program that actually writes data from the interface back to the database.	Single	Yes
	Use this property in conjunction with the WRITE_SRC property, which contains the name of the destination planning item.		
	For FS.FIN_DATA a specific writeback program is seeded because data is written to the variable FS.CUJO_DECIMAL1, rather than the planning item itself.		
	A default, generic program called FS.GN_DATA_WRITE is provided for the FS.CAP_PLAN_DATA and FS.INTEREST_RATE planning items. This program does not reference any other object, like FS.CUJO_DECIMAL1 because such an object would need to be user-defined. Therefore this generic program writes data directly to the planning item being accessed.		
APP_SRC	Formulas entered for this property control display characteristics for data in the interface. This property applies to both host and dependent planning items.	Single	No
	For example, in the Maturity Mix interface, default data appears black while override data appears blue. For this interface the data display is controlled through the formula FS.MD_VAR_SOURCE.		
WRITE_SRC	This property names the planning item to which data is written. It is used in conjunction with the program identified in the WRTBACK_PRG property. Express objects used here should be dimensioned by the same dimensions as the data source object identified in the FS.DATA_SRC property or be able to accept all those dimensions.	Single	Yes

Property Object Name	Description	Single/ Multi	Req'd
CUST_PRG	User-defined program object names are entered here. This property works with the CUST_PRG_DESC property to identify custom programs set up to be accessed and launched from within the Budgeting & Planning interface. Custom programs are accessed from the Options menu, and multiple custom programs can be defined for a given planning item.		No
CUST_PRG_DESC	The description of a user-defined program object is entered here.	Multi	No
	This description appears as a selection in the Options menu of the interface. By selecting the description from the Options menu you launch the program.		
	Note the following, imperative conditions:		
	You must input a description for each custom program. If you fail to input a description the program is not accessible through the interface to end users.		
	If you create multiple programs your list of descriptions must be in the exact order as the programs listed in CUST_PRG.		
VALIDATION_PRG	Not activated for this release.	NA	NA
	Designed to accommodate a program that checks data validity.		
DEPENDENT_FDI	T_FDI For a host planning item in FS.FDI_ENTRY enter the dependent planning item(s) here.		No
	For example, the seeded dependent planning items for Financial Plans (FS.FIN_DATA) are FS.MIX_OVERRIDE and FS.INTEREST_RATE.		
ADMIN	Not activated for this release.	NA	NA

### **Mandatory and Non-Mandatory Dimension Values Listed**

The following table categorizes the FS.FDI\_PROP dimension values by whether or not they are mandatory:

Mandatory Properties	Non-Mandatory Properties
DATA_SRC	INIT_PRG
ACROSS_DIM	DEPENDENT
DOWN_DIM	AUTO_DIM
SELECT_ACROSS_DIM	AUTO_DIM_PRG
SELECT_DOWN_DIM	CALC
SUBMIT_PRG	CALC_PARTIAL
RW_SRC	CALC_FULL
WRTBACK_PRG	SAVE_PRG
WRITE_SRC	CONJ_DIM
	APP_SRC
	CUST_PRG
	CUST_PRG_DESC
	DEPENDENT_FDI

For this release VALIDATION\_PRG and ADMIN are not active and, therefore, not included in the preceding table.

### **Interrelated Properties**

Some properties have dependencies. The following table lists these dependencies:

When you enter a value for	You must also enter a value for	Which is
DEPENDENT	DEPENDENT_FDI	The name of the dependent planning item, entered under the host planning item's DEPENDENT_FDI property.
AUTO_DIM	AUTO_DIM_PRG	The program that links values in the AUTO_DIM dimension to their associated values when those associated values are chosen from the Selector.

When you enter a value for	You must also enter a value for	Which is
CUST_PRG	CUST_PRG_DESC	The name of the program, as you want it to appear, in the Options menu of the Menu bar. Failing to enter a description in the CUST_PRG_DESC property renders the custom program inaccessible through the interface to end users.

### Describing the FS.FDI\_ENTRY Dimension

Entries in this dimension name the planning items. This dimension in OFA is BP FDI Access. Use Express object names for the planning items you create.

The seeded planning items for FS.FDI\_ENTRY include:

Description	Express Object Name
Financial Plans	FS.FIN_DATA
Mix Override	FS.MIX_OVERRIDE
Capital Expenditures	FS.CAP_PLAN_DATA
Interest Rates	FS.INTEREST_RATE

## **Setting Up Planning Item and Custom Program Access**

This section explains the requirements for accessing planning items and custom programs.

### **Requirements for Planning Item Access**

For user-defined planning items, first create the planning item using OFA. It must have a minimum of three dimensions.

The steps for adding a planning item and any associated custom programs to the FS.FDI\_CATALOG follow:

- Open Oracle Financial Analyzer.
- 2. Add the planning item as a dimension value to the FS.FDI\_ENTRY dimension by selecting Maintain -> Dimension Values from the Menu bar.

The dimension you want to add the dimension value to should be listed in OFA with the description BP FDI Access.

**Note:** The dimension value *must* be created with the same name as the Express object name of the planning item you want to add. Descriptions should match as well.

Open Oracle Express Administrator.

Create any custom formulas or programs that you want to add to FS.FDI\_ CATALOG. These formulas or programs control planning item access, display, and functions.

You can use existing formulas or programs as a guide in creating your custom objects, if desired. Contact Customer Support for information on how to access seeded programs.

Populate FS.FDI\_CATALOG with the required and optional properties using Express Administrator.

When adding entries to the catalog use Express object names where appropriate.

Refer to the section "Mandatory and Non-Mandatory Dimension Values Listed" in this chapter to know which properties are required and which are optional.

### **Establishing User Access to Additional Planning Items**

Once you have populated FS.FDI\_CATALOG with the information that provides accessibility you need to establish controls for end-user access.

Complete this task in OFA, using the distribution functionality, to distribute the planning item(s) to the end users to whom you want to grant access.

Manage this process by completing the following steps:

- 1. Open Oracle Financial Analyzer
- Select Distribution -> Structure to select the new dimension value or values that you added to the BP FDI Access dimension in the previous section.
- From the Distribute Structure dialog box locate and select BP FDI Access. Double-click on this selection to open the Selector.
- Choose the planning item or items you want to distribute.

- 5. Choose the user or users from the Users column to whom the planning item will be distributed.
- Add the One-Way Data Custom Distribution object in the Distribute Structure dialog box to the items you have selected for distribution.

This step distributes the FS.FDI\_CATALOG property entries for the planning item being distributed. Therefore, this object must be listed in the Item column after the BP FDI Access entry.

- Submit the distribution.
- Run the Task Processor to process the distribution.

#### Interface Icons and Menu Items

The descriptions for the Calculation icons and the Calculation selections in the Options menu always remain the same, whether you open a seeded planning item or a user-defined planning item. Even if you alter the calculation program to accommodate a specific planning item-related requirement, the descriptions in these two areas remain unchanged.

Custom calculation routines, however, that you have cataloged in the FS.CUST PRG property and described in the FS.CUST PRG DESC property appear as selections in the Options menu and are dynamic. Only the custom programs you catalog for a specific planning item appear as Option menu selections when you access that planning item.

## Administering Status For Your Custom Programs

When creating a custom program it is important that you define the combination of dimension values on which you intend the program to operate. You need to decide whether you want the program to perform its operation only on the values displayed in the interface, a combination of those values plus other values selected by an end user, or include values not represented in the current selections.

You define these combinations of dimension values from the following possibilities:

- Dimension values displayed in the interface (default)
- Currently visible dimension values plus a subset of other in-status values
- All dimension values in status
- Dimension values not represented in any of these preceding options

Determining the combinations of dimension values also helps to define status for your program. The following section describes the actions taken by the application, regarding status, when an end user launches a custom program.

### Saving and Retrieving Status

When an end user selects a custom program from the Options menu, the application stores the current status of all the dimensions plus the status of any corresponding hierarchies also selected, in an Express object called a context. Once stored, the application limits status of all paging dimensions to the individual values visible on the current page of the interface.

#### Scenario

For example, an end user makes the following selections from the Financial Plans planning item:

Dimension	Dimension Values Selected
Time	12 monthly periods
Organizational Unit	3 units
Chart of Accounts	2 cash flow accounts
Strategy	1 value
Forecast	1 value
Currency	1 value

In the interface Time occupies the across dimension and Financial Element occupies the down dimension. Before the end user selects the program there are a total of six pages currently selected (3 Organizational Units \* 2 Chart of Accounts).

#### **Process**

When the end user selects your program the application stores the current status of all dimensions in a dynamically generated context. Since the context is dynamically generated the name is never the same. Immediately after creating the context the application stores the name in an Express variable called FS.SLCTN\_CONTEXT.

The application then limits all the current paging dimensions (in this example Organizational Unit, Chart of Accounts, Strategy, Forecast, and Currency) to the single values displayed in the interface.

After limiting the paging dimensions the custom program is executed. If the desired combination of dimension values upon which you want the program to operate differs from those reflected on the current page, then you need to adjust status during the program's execution.

The following table summarizes the possible combinations of dimensions and the actions you need to take:

If you want your program to operate on	then you need to
Only the current page of dimension values	Do nothing, this is the default setting.
All dimension values in the current page, plus a subset of other pages currently selected	Selectively restore the status that the application saved in the context.
All dimension values currently selected through the Selector	Restore the entire context.
Dimension values not currently selected	Use Express functions, such as limit, to adjust the status.

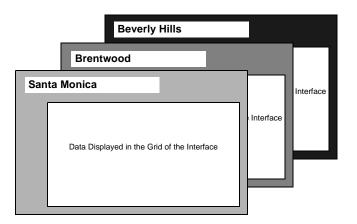
Processing Selected Dimensions If you want your program to process the three organizational units in this scenario you need to restore the selection on the Organizational Unit dimension status from the context.

Once you have restored status, the following diagram illustrates the range of data that the rest of your custom program will impact:

**Chart of Accounts: Auto Loans** 

Forecast: Base

**Strategy: Momentum Currency: US Dollars** 



Processing All Dimensions If you want your program to process all six combinations of dimension values you can either restore the selection on the Organizational Unit dimension and the Chart of Accounts dimension or restore the entire context.

**Caution:** If you decide to restore the entire context note the following:

- End users can potentially run your program on very large data sets, depending on their selection
- End users can mistakenly run the same custom program on multiple dimension values, such as for Forecast, with unintentional results

### Referencing the Context in Your Program

To reference the context in your program, use the Express ampersand (&) substitution functionality. The following command shows how to restore the Organizational Unit dimension to its former status:

context &FS.SLCTN\_CONTEXT restore FS.ORG\_UNIT

For more information on the context object refer to the Express documentation and online help.

After the program finishes it restores status to the way it was before the program was launched.

# **Creating Custom Cash Flow Calculations**

Creating custom cash flow calculations enables the administrator to define balance sheet calculations that accurately reflect the behavior of your institution's products or investments. However, once you create this custom cash flow calculation you need to make sure your calculations are incorporated into the budgeting processes for the Budgeting & Planning application.

If you do not complete the steps in this chapter, the Budgeting & Planning application can not use your customized cash flows in the budgeting process.

In this chapter a custom cash flow calculation called BULLET.REPRICE is used to illustrate the steps you need to take to incorporate a custom cash flow into the Budgeting & Planning application. This example assumes that you already know how to create a customized cash flow.

For the purposes of this chapter BULLET.REPRICE is the name given to a loan instrument that has a bullet maturity and also reprices at specified intervals during the term of the loan. BULLET.REPRICE is considered a cash flow calculation because the computation of outstanding balance and earnings is based on the instrument's maturing and repricing characteristics and also your institution's forecasts for new business. In contrast, a non-cash flow calculation has only total amounts input.

Refer to FS.NON.TERM and FS.NON.RATE.REL as examples of non-cash flow simplified calculations.

> **Caution:** All programs created using Oracle Express and seeded programs included with the Budgeting & Planning product have an FS. prefix. Do not use the prefix 'FS' when you name your custom programs.

# Setting Up the Cash Flow Calculation

The first thing to do is create your custom cash flow calculation and add it to your list of cash flow programs in Oracle Express. The following section explains how to do this.

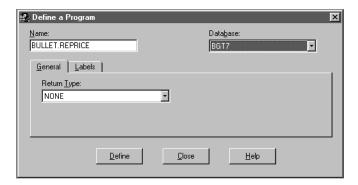
### Creating the Custom Cash Flow Calculation

Follow these steps to create the custom cash flow calculations:

- Launch Oracle Express Administrator.
- Attach your custom program database.

For additional instructions on using custom databases see "Defining FSBPTOOL as the Primary Custom Database" in the Oracle Financial Services Installation and Configuration Guide.

- **3.** From the menu items select Edit -> Define -> Program. The Define a Program dialog box appears.
- 4. In the Name field, type the name you have chosen for your custom cash flow then select a return type of NONE from the Return Type selection box.



- Click Define then close the dialog box.
- Create the BULLET.REPRICE custom cash flow program.

Note that you can use an existing cash flow calculation as the basis for creating your customized calculation. In this example FS.BULLET.FIXED might be a calculation program that most closely reflects the characteristics of the program you want to create.

### Adding the New Custom Cash Flow

Follow these steps to add your custom cash flow to the list of available programs.

- Launch Oracle Financial Analyzer.
- 2. From the Maintain menu choose Dimension Value.
- Select Balance Sheet Model.
- Click New.

In this scenario, the Name field would be populated with the description for the new model type (Bullet Repricing) and the dimension value field would be populated with the exact Express name of your program (BULLET.REPRICE).

**Note:** In this example BULLET.REPRICE is not prefixed by "FS." This is a custom cash flow calculation, therefore the prefix is not used. Only predefined calculations use the prefix "FS."

### Associating the Custom Cash Flow with Budgeting & Planning

The tasks described in this section include the following:

- Associating your newly created cash flow program with the chart of accounts (FS.CHRT\_OF\_ACCT) that use this calculation
- Designating the new program as a cash flow type calculation so that it is recognized by the Budgeting & Planning application as such
- Designating which financial elements appear in the interface
- Designating which elements are read/write and which are read-only

### Associating the Cash Flow Program with the Relevant Chart of Accounts

The first task associates the new custom cash flow program with the Chart of Accounts products that rely on this program so that whenever changes are made to these products the custom cash flow program runs.

To complete this task, follow these steps:

- 1. Launch Oracle Financial Analyzer.
- From the Maintain menu choose Attribute.

The Maintain Attribute dialog box appears.

- Select Chart of Accounts from the Base dimension list box.
- Select COA Balance Sheet Model from the Attribute list box.
- Click Edit.

The Edit Attribute list box appears.

- Expand the Grouping Values list box and click the custom cash flow program.
- Highlight the cells opposite the Chart of Accounts products to which you want to apply your custom cash flow program.
- Click Set.
- Click Save.

#### Designating the Calculation Program as "Cash Flow"

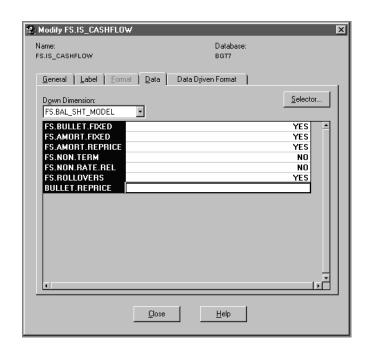
The next task assigns "cash flow" as the calculation type for this program. This step is necessary so that the Budgeting & Planning application recognizes this new program as a cash flow calculation.

To complete this task, follow these steps:

- Launch Express Administrator.
- Locate and double-click on the variable FS.IS\_CASHFLOW.
- Select the Data tab. 3.

The Modify FS.IS\_CASHFLOW dialog box appears.

Type YES in the row opposite your custom cash flow program.



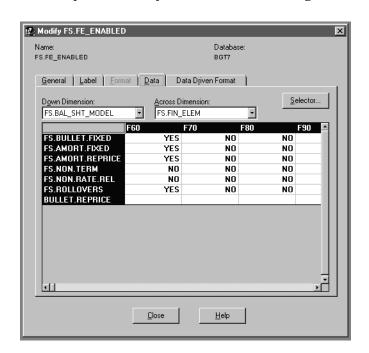
An example of the Modify FS.IS\_CASHFLOW dialog box follows.

### **Displaying Relevant Financial Elements in the Interface**

This task enables you to designate which financial elements associated with your custom cash flow appear in the interface when an end user selects this type of account.

To select the financial elements you want displayed follow these steps:

- From Express Administrator locate and double-click on the Express object FS.FE\_ENABLED.
  - The Modify FS.FE\_ENABLED dialog box appears.
- Select the Data tab and type YES for each of the financial elements used in the calculation that you want to appear in the interface.



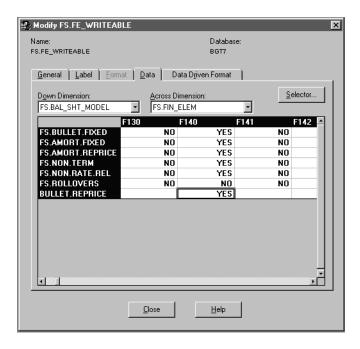
An example of a Modify FS.FE\_ENABLED dialog box follows.

Note: Any value other than YES, such as leaving the row blank or entering NA, is treated as a NO value.

### Designating Relevant Financial Elements as Read/Write

This task designates which financial elements in your custom cash flow can be changed by an end user. To designate these financial elements as read/write follow these steps:

- Locate the FS.FE\_WRITEABLE Express object. The Modify FS.FE\_WRITEABLE dialog box appears.
- Designate the financial elements available to the end users for input by entering YES in the appropriate cell.



#### An example of this step follows:

After you have completed the steps in this section, your newly created custom cash flow calculation should appear and function properly in the Budgeting & Planning user interface.

Settina	Hn	the	Cash	Flow	Calculation
Jellilla	Uμ	เมเต	Casii	IIUVV	Calculation

# Running the LEDGER\_STAT Writeback **Procedure**

The LEDGER STAT writeback data transformation procedure is an Express program used in conjunction with the LEDGER STAT load utility in the Oracle Financial Data Manager (FDM) to move Budgeting & Planning data to the LEDGER STAT table. The Express program moves data to a staging table in FDM; the LEDGER STAT load utility then moves the data from the staging table to the LEDGER\_STAT table.

Using the writeback procedure you can move both official budget projections and interim forecasts of performance to the LEDGER STAT table. Once loaded, you can subject this data to further processing using other OFSA applications such as Performance Analyzer and, ultimately, use this processed data for performance reporting against FDM.

If your budgeting process calls for allocations or other refinements on the Budgeting & Planning data using Performance Analyzer, you can then load the resulting adjusted or final budget back into Express. Use the data movement routines described in Chapter 3, "Administering the Application" to complete this task.

This chapter explains how to prepare your data for the writeback procedure and execute the program using Oracle Express Administrator. This chapter presents the following topics:

- Features of the Writeback Procedure
- Overview of the Load Process
- Key Steps in the LEDGER STAT Writeback Procedure
- Details of the Writeback Procedure

### Features of the Writeback Procedure

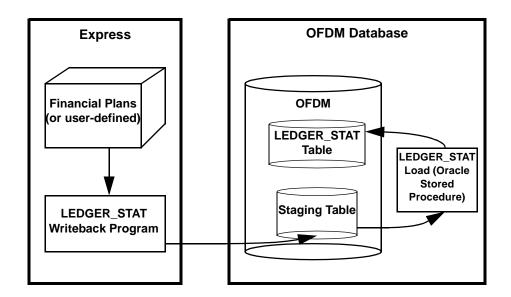
The following points highlight key features of the writeback procedure:

- Transfers budget or forecast data from the Financial Plans planning item in the Super Administrator's shared database in Express to an Oracle table (staging table) in FDM. From there, a separate tool, the LEDGER\_STAT Load Utility, loads data to the LEDGER\_STAT table.
- Loads only leaf-level dimension values from Express to the staging table and then to the LEDGER\_STAT table. All nodes and orphans are excluded. Hierarchies identified when the process is run provide the mapping information to determine which dimension values in Express represent leaf-level dimension values.
  - The procedure also removes any alpha prefixes (retaining the numerical identifiers) from Express dimension values before loading data to the staging table.
- Loads only financial elements with an 'F' prefix to the staging table and LEDGER\_STAT.
- Performs leaf-level validation to confirm the existence of destination leaf values in FDM Leaf Setup tables that match dimension values in Budgeting & Planning. The procedure excludes values unique to Budgeting & Planning from both the staging table and the LEDGER STAT table.
- Provides the option to create a log file to record Budgeting & Planning dimension values rejected during the writeback procedure. Rejections could be due to the absence of matching leaf values in the Leaf Setup tables in FDM, unique constraint violations, or non-unique leaf values.
- If you populate the Chart of Accounts dimension in Budgeting & Planning from a leaf field other than COMMON\_COA\_ID the procedure performs a lookup of the COMMON\_COA\_ID value assigned to the FDM leaf field in leaf setup. The procedure then populates the COMMON\_COA\_ID column in the staging table with the chart of account value returned from the look up. This process ensures that the field is appropriately populated when data is loaded to LEDGER\_STAT.
- Performs consolidation code-based operations on budget and forecast data. Per your specifications, the LEDGER\_STAT load utility deletes LEDGER\_STAT records with consolidation codes 200 or 300, in advance of loading new records to the LEDGER\_STAT table. You also have the option of copying records with consolidation code 300 to records with a code of 310 before new records are inserted into the LEDGER STAT table.

Parameters associated with the call statement used to launch the procedure are maintained in a catalog that is seeded with the database.

### Overview of the Load Process

In the load procedure, Budgeting & Planning data from the Express database is loaded into a staging table using the Express LEDGER STAT writeback program. The staging table is created using script templates, associated with the LEDGER STAT load procedure, and provided in FDM.

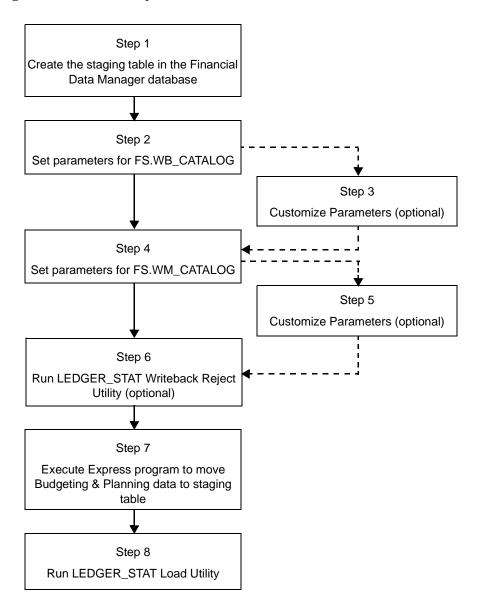


Runtime parameters, such as the name of the load table, which columns to load, ADD or REPLACE update functionality, and whether or not to create offset records can be entered into the Ledger Stat Load Batch table using a Data Verification ID. One row per table to be loaded is entered in this table, as a way to batch a multiple-table load in one run of the procedure.

The procedure is implemented as an Oracle PL/SQL stored procedure so it can be invoked from a SQL ID or from SQL\*Plus. Input parameters are read from the batch/parameter table and validated for correctness, completeness and consistency before the load begins. Parameter errors are written to a Message column in the batch/parameter table. Runtime statistics are written to the batch/parameter record following completion of the load for that record.

# Key Steps in the LEDGER\_STAT Writeback Procedure

This section describes the key activities for the writeback procedure. The following diagram illustrates the sequence:



#### Step 1: Create the Staging Table and View in FDM

This is the first step in the procedure. It creates the table that temporarily holds Budgeting & Planning data for loading to the LEDGER\_STAT table. Create the staging table using scripts provided in FDM. Enter the staging table name when you set the parameters for FS.WB\_CATALOG, in the next step. Refer to "Creating the Staging Table and Views" in this chapter for more information.

#### Step 2: Set Parameters for FS.WB\_CATALOG

The following table shows the dimensions and dimension values for this catalog. A typical writeback procedure uses seeded values for many of the FS.WB\_ENTRY dimension values. In this example, shaded cells indicate unseeded entries that a user might typically make or need to make. Note that the shaded cells for BUDGET and FORECAST and the entry for the LOGFILE property, which is optional, contain sample values.

#### **FS.WB CATALOG**

	FS.WB_ENTRY		
FS.WB_PROP	BUDGET	FORECAST	USER-DEFINED (optional)
CUBE [PLANNING ITEM]	FS.FIN_DATA	FS.FIN_DATA	
TABLE	BPLGRST	BPLGRST	
MAPSET	STD200	STD300	
STARTMONTH	JUL99	JUL99	
ENDMONTH	JUN00	JUN00	
LOGFILE <sup>1</sup>	D:/logs/reject.log	D:/logs/reject.log	
LOGMAX			
FINELEMLIST	F100	F100	
	F140	F140	
	F420	F420	
	F450	F450	
	F455	F455	
	F457	F457	
	F10000	F10000	

<sup>&</sup>lt;sup>1</sup> LOGFILE is an optional entry. This example illustrates a sample path for a log file.

Mapset values STD200 and STD300 are dimension values from the second catalog, FS.WM\_CATALOG. Refer to "Setting Parameters for FS.WM\_CATALOG" in this chapter for more information on creating mapsets.

#### Step 3: Customize Parameters

If you want to load data from a user-defined planning item to the staging table you need to add an additional dimension value to FS.WB\_ENTRY. In the example this is the third column in the FS.WB CATALOG table. Customizing this catalog may require adding a mapset entry to the FS.WM\_ENTRY dimension in the FS.WM\_ CATALOG catalog, if the existing, seeded mapsets are not sufficient.

### Step 4: Set Parameters for FS.WM\_CATALOG

Entries in this catalog support entries in FS.WB CATALOG. The values you enter in this catalog are referenced as the MAPSET property values in FS.WB\_CATALOG.

The following tables display the dimensions and dimension values for this catalog. As with FS.WB\_CATALOG, a typical writeback procedure uses seeded values for many of these dimensions. Shaded cells indicate values you need to enter. In this example values in the shaded cells are sample values.

#### **Dimension Value STD200**

FS.WM_ENTRY: STD200	FS.WM_MAP		
FS.WM_SET	DIM	COL	HIERARCHY
1	A	ACCUM_TYPE	
2	200	CONSOLIDAT	
3	FS.FIN_ELEM	FINANC_ID	
4	FS.ORG_UNIT	ORG_ID	HI.AA12345
5	0	GL_ACCT_ID	
6	FS.CHRT_OF_ACCT	BP_COA_ID	HI.AA67890
7	FS.STRATEGY	MOMENTUM	
8	FS.FORECAST	BASE	
9	FS.CURRENCY	BASE	
10 - 12			

#### **Dimension Value STD300**

FS.WM_ENTRY: STD300	FS.WM_MAP			
FS.WM_SET	DIM	COL	HIERARCHY	
1	A	ACCUM_TYPE		
2	300	CONSOLIDAT		
3	FS.FIN_ELEM	FINANC_ID		
4	FS.ORG_UNIT	ORG_ID	HI.AA55555	
5	0	GL_ACCT_ID		
6	FS.CHRT_OF_ACCT	BP_COA_ID	HI.AA4444	
7	FS.STRATEGY	MOMENTUM		
8	FS.FORECAST	BASE		
9	FS.CURRENCY	BASE		
10-12				

Note that in these examples the FS.CHRT\_OF\_ACCT maps to a hypothetical, user-defined leaf called BP\_COA\_ID. When the process is run the COMMON\_ COA\_ID column will be populated with the COMMON\_COA\_ID values found in OFSA\_DETAIL\_OTHER\_COA for the given BP\_COA\_ID values. It is not necessary to explicitly mention the COMMON\_COA\_ID column to trigger this functionality.

#### **Step 5: Customize Parameters**

If you customize FS.WB CATALOG to include user-defined planning items you need to create a new value in FS.WM\_ENTRY and include:

- All user-defined dimensions from your planning item
- Required dimensions

See "Loading Data From User-Defined Planning Items", in this chapter, for the list of required dimensions.

#### Step 6: Run LEDGER\_STAT Writeback Reject Utility (optional)

This utility determines where problem leaf-level values exist and reports those values out to the same log file as indicated in FS.WB\_CATALOG.

Use the following command if you want to run this utility:

```
FS.WB_CHK_RJCT(<db connectstring>,<wb_entry>)
```

#### Step 7: Execute the Express Program

Run the Express program to move data from the Express database to the staging table, using the following command:

FS.LS WRITEBACK(<db connectstring>,<wb entry>,<boolean:log rejects>)

#### where:

Entry	Description
<db connectstring=""></db>	<user>/<password>@<databasename> where <databasename> is the name of FDM</databasename></databasename></password></user>
<wb_entry></wb_entry>	A valid FS.WB_ENTRY value
<boolean: log="" rejects=""></boolean:>	YES = log rejected data
	NO = do not log rejected data
	The default setting is NO.

Refer to "Executing the Express Program" in this chapter for additional information.

### Step 8: Run the LEDGER\_STAT Load Utility

Execute the load routine from FDM. Refer to "Executing the LEDGER\_STAT Load Procedure for Budgeting & Planning" in this chapter for information regarding this routine.

### **Details of the Writeback Procedure**

This section provides the following detailed information on the writeback procedure:

- Creating the Staging Table and Views
- Setting Parameters for FS.WB CATALOG
- Setting Parameters for FS.WM\_CATALOG

- **Executing the Express Program**
- Executing the LEDGER\_STAT Load Utility

### Creating the Staging Table and Views

The staging table temporarily holds Budgeting & Planning data before loading to the LEDGER STAT table. Before running the Express writeback program, create the staging table and views in FDM. The name you assign to the table is the name you enter in FS.WB\_CATALOG. Without this entry your writeback program will not run successfully.

Create the staging table and views using scripts in FDM. Refer to the "FDM Utilities" chapter of the Oracle Financial Services Installation and Configuration Guide for instructions on customizing and running these scripts.

### Setting Parameters for FS.WB\_CATALOG

FS.WB\_CATALOG is the primary catalog for the writeback procedure, storing information about the data source, time range, financial elements, and log file.

This section describes the following for FS.WB\_CATALOG:

- Accessing this Catalog
- Populating Values for FS.WB\_CATALOG
- Designating the Log File

### Accessing this Catalog

Access FS.WB\_CATALOG through Express Administrator.

### Populating Values for FS.WB\_CATALOG

This catalog is dimensioned by:

- FS.WB\_PROP
- FS.WB ENTRY

This section describes the dimension values for both dimensions.

### FS.WB\_PROP Dimension

Dimension Value	Explanation for WB_PROP Dimension Values	Options			
CUBE	Planning item supplying data. This is either the Financial Plans planning item (FS.FIN_DATA) or a user-defined planning item.	Seeded - Financial Plans planning item (FS.FIN_DATA).			
		User-defined - optional			
TABLE	Name of the staging table created to hold Budgeting & Planning data before the load utility loads this data to the LEDGER_STAT table.	User defined - Enter the name of the staging			
	Refer to the <i>Oracle Financial Services Installation and Configuration Guide</i> for information on creating this table.	table.			
MAPSET	The identifying name for the specific set of parameters	Seeded			
	for loading data to the staging table. The parameters defining each mapset are stored in the FS.WM_CATALOG catalog.	Additional, user-defined mapsets can be created.			
	The application seeds the following two mapsets:				
	STD200 = Consolidation code 200 (for Budget data)				
	STD300 = Consolidation code 300 (for Forecast data)				
STARTMONTH	The first month of an inclusive range of months of data you want to include in the load procedure.	User defined - First month of the time range. Use the format MMMYY.			
ENDMONTH	The last month of an inclusive range of months of data you want to include in the load procedure.	User defined - Last month of the time range. Use the format MMMYY.			
LOGFILE	Designate the log file by entering a fully-pathed file name. For more information see "Designating the Log File" in this chapter.	User defined - Either a user-defined			
	If you choose to omit a log file enter NO for the appropriate argument when launching the LS_ WRITEBACK program. See "Executing the Express Program" in this chapter for additional information.	location OR omit log file altogether			

Dimension Value	Explanation for WB_PROP Dimension Values	Options
LOGMAX	The maximum number of rows written to the log file.  If left blank, the program writes all rows to the file.	Seeded - All entries (rows) written to log file.
		User defined - Input the limiting number of rows written to the log file.
FINELEMLIST	The list of financial elements included in the load	Seeded
	procedure.  The following financial elements are seeded:  F100 - End Balance  F140 - Average Balance  F420 - Interest  F450 - Charge/Credit  F455 - Non Interest Income  F457 - Non Interest Expense  F10000 - Statistical  Only financial elements with the prefix "F" are acceptable.  Elements with numeric values not matching values in FDM are rejected and written to the log file.  See "Table Integrity" for more information on valid and invalid financial elements.	User defined - Add to or subtract from this list as appropriate

### FS.WB\_ENTRY Dimension

Dimension Value	Explanation for FS.WB_ENTRY Dimension Values	Options:
BUDGET	Data loaded using this dimension value is your official budget for the year. Mapset STD200 represents the budget consolidation code. This is a seeded dimension value.	Seeded

Dimension Value	Explanation for FS.WB_ENTRY Dimension Values	Options:
FORECAST	Data loaded using this dimension value is forecasted data. Mapset STD300 represents the consolidation code for forecasted data. This is a seeded dimension value.	Seeded
User Defined	You can add as many additional values for this dimension as necessary.	User defined

#### Designating the Log File

To create a log file, enter a fully-pathed file name in the LOGFILE dimension value of FS.WB\_CATALOG and enter YES in the third argument (boolean variable) of the FS.LS\_WRITEBACK program.

The program reads your file location and writes invalid data to that file. After you review the rejections written to this file and make adjustments, as necessary, delete this file or rename it, while leaving the file name (in FS.WB\_CATALOG) intact. The next time you execute the writeback program (with logfile invoked) the program writes rejections directly to this file.

Failing to Delete Your Log File From the Database If you forget to delete your reject.log file from the database and execute the writeback program, the program automatically creates a new file, locating it in the directory you created, with the following naming convention:

D:/LOGS/WB REJECTS-DD-MMM-YYYY-HHMM.LOG

where:

D:/LOGS/	Represents your user-defined directory location for the log file
WB_REJECTS-DD-MMM-YYYY-HHMM.LOG	Represents the program-generated file name, including an identifying name and datetime stamp

The program does not overwrite any previously created files. It creates a new file by retaining the name but appending the date and time values to reflect the point in time when the new file was generated.

Entering YES to Create a Logfile Without a Fully-Pathed Name If you enter YES as the third argument of the writeback program but fail to enter a fully-pathed name for the log

file in FS.WB\_CATALOG, the program automatically generates a log file for you in the current working directory.

The default directory and file name is:

#### WORKING DIRECTORY/WB\_REJECTS-DD-MMM-YYYY-HHMM.LOG

If you fail to enter a file location in FS.WB\_CATALOG and continue with the default setting, every time you execute the writeback program it generates a new file by this same algorithm.

Data Written to the Log File Invalid leaf values are written to the log file. An invalid leaf value is a value that exists in Budgeting & Planning but does not have a corresponding value in Leaf Setup in FDM. In addition, any duplicate occurrences of leaf values, where the original Express dimension values differ only by prefix, is treated as an invalid leaf value.

Regarding special circumstances for invalid financial elements, refer to "Table Integrity and Data Rules When Setting Parameters" in this chapter.

### Setting Parameters for FS.WM\_CATALOG

This catalog supports FS.WB CATALOG by consolidating information into datasets that incorporate the following information:

- Defining the data for each mapset used in the FS.WB\_CATALOG catalog
- Mapping Express dimensions to staging table columns
- Mapping the Budgeting & Planning Chart of Accounts dimension to the FDM column used to load the application's Chart of Accounts
- Entering the appropriate consolidation and accumulation codes

This section describes the following:

- **Accessing this Catalog**
- Populating Values for FS.WM\_CATALOG

### Accessing this Catalog

Access FS.WM CATALOG through Express Administrator.

### Populating Values for FS.WM\_CATALOG

This catalog includes the following dimensions:

Dimension	Description		
FS.WM_SET	Use this dimension to modify the number of rows in the catalog. The default is 12.		
FS.WM_MAP	Use this dimension to:		
	<ul> <li>Map Express dimensions that correspond one-to-one with staging table columns</li> </ul>		
	<ul> <li>Specify a single value for dimensions that do not have corresponding columns in FDM</li> </ul>		
	<ul> <li>Specify a single value for columns from FDM that do not have corresponding Express dimensions</li> </ul>		
	<ul> <li>Identify hierarchical structures for leaf/node definitions, if necessary</li> </ul>		
FS.WM_ENTRY	Use this dimension to differentiate datasets in the catalog. Two datasets (dimension values) are seeded: STD200 and STD300.		
	You can create additional dimension values as needed.		

An Example of FS.WM\_CATALOG The following table illustrates the content of FS.WM\_ CATALOG. The values for this example are specific to the Financial Plans planning item, for forecasted data (consolidation code 300).

FS.WM_ENTRY: STD300	FS.WM_MAP			
FS.WM_SET	DIM	COL	HIERARCHY	
1	A	ACCUM_TYPE		
2	300	CONSOLIDAT		
3	FS.FIN_ELEM	FINANC_ID		
4	FS.ORG_UNIT	ORG_ID	HI.AA55555	
5	0	GL_ACCT_ID		
6	FS.CHRT_OF_ACCT	BP_COA_ID	HI.AA44444	
7	FS.STRATEGY	MOMENTUM		

FS.WM_ENTRY: STD300	FS.WM_MAP		
FS.WM_SET	DIM	COL	HIERARCHY
8	FS.FORECAST	BASE	
9	FS.CURRENCY	BASE	
10 - 12			

Defining the Parameters for FS.WM\_SET This dimension sets the number of rows for the catalog. In the example provided, rows 1 through 9 are used. The default number of rows is 12. Additional rows may be needed if:

- You are mapping dimensions from a user-defined planning item that has more dimensions than Financial Plans (FS.FIN\_DATA) to the staging table, for loading to LEDGER\_STAT or;
- Your staging table has more columns

Use Express Administrator to modify the number of rows.

Defining the Parameters for FS.WM\_MAP This dimension provides mapping information between Budgeting & Planning and the staging table for the following:

- Associating Express dimensions with staging table columns where a one-to-one correspondence exists
- Entering values for staging table columns where corresponding dimensions do not exist
- Selecting the source value for dimensions that do not map to staging table columns

## **Mapping Express Dimensions to Staging Table Columns**

Use the FS.WM\_MAP dimension to set up the mapping associations between dimensions in the Express database and columns in the staging table.

It is important to note that a strict one-to-one relationship does not always exist between dimensions and columns. Where this relationship is non-existent you need to instruct the program how to handle the mapping.

For example, an Express dimension for ACCUM TYPE does not exist, therefore, you need to enter the accumulation code in the DIM column of the FS.WM\_MAP dimension.

As another example, if multiple strategies exist in the Express database, you need to filter the strategies so that you pass only the strategy you want to the staging table. Selecting a value other than MOMENTUM (which is seeded) for the FS.STRATEGY dimension or values other than BASE (also seeded) for FS.FORECAST and FS.CURRENCY would illustrate this example.

Note also that values entered in DIM or COL do not necessarily correspond to Express dimensions or FDM columns. DIM entries are either a dimension name or an input value. COL entries are either a column name or a dimension value used for filtering.

For new FS.WM\_ENTRY dimension values or user-defined planning items some if not all of the seeded mappings may require modification.

The following tables and diagrams provide additional information on these three mapping scenarios:

Relationship 1	Description and Example
Express dimension maps to FDM	A one-to-one relationship exists between an Express dimension and an FDM column.
column	Examples of this relationship include Financial Element, Organizational Units, and Chart of Accounts.

In the FS.WM CATALOG example rows 3, 4, and 6 illustrate this relationship, as shown in the following table:

Row	DIM	COL
3	FS.FIN_ELEM	FINANC_ID
4	FS.ORG_UNIT	ORG_ID
6	FS.CHRT_OF_ACCT	BP_COA_ID <sup>1</sup>

<sup>&</sup>lt;sup>1</sup>BP\_COA\_ID is a hypothetical, user-defined value

Relationship 2	Description and Example
Express dimension does not exist for an	A column in the staging table does not have an equivalent dimension in the Express database.
FDM column	An example of this would be a user-defined column added to FDM (and the staging table) but not used in Budgeting & Planning.  Another example would be the column CONSOLIDATION_CD or ACCUM_TYPE_CD, which are seeded in FDM rather than added.
	The LEDGER_STAT table cannot have null values. Therefore, if you do not specify a value in the Express dimension (DIM column in the example) the Express LEDGER_STAT writeback procedure inserts a value of zero.

In the FS.WM\_CATALOG example rows 1, 2, and 5 illustrate this relationship, as shown in the following table:

Row	DIM	COL
1	A	ACCUM_TYPE
2	300	CONSOLIDAT
5	0	GL_ACCT_ID

Relationship 3	Description and Example
Express dimension values without equivalent FDM columns	Dimension values such as Strategy, Forecast, and Currency may not have equivalent FDM columns in the staging table. In order to select the data slice you want, you need to filter Budgeting & Planning data before passing it to the staging table.

In the FS.WM\_CATALOG example rows 7, 8, and 9 illustrate this relationship, as shown in the following table:

Row	DIM	COL	
7	FS.STRATEGY	MOMENTUM	
8	FS.FORECAST	BASE	
9	FS.CURRENCY	BASE	

### **Mapping Your Chart of Accounts Dimensions**

When you map your Chart of Accounts dimension you *must*:

Enter the hierarchy identifier you want to use to distinguish between leaf and node values – the writeback program writes only leaf values to the LEDGER\_ STAT table.

In the FS.WM\_CATALOG example, the identifier for the Chart of Accounts dimension is HI.AA67890.

If you populate the Chart of Accounts dimension in Express from a leaf field in FDM other than COMMON\_COA\_ID note the following:

- Enter the name given to the leaf field in FDM. In the example, BP\_COA\_ID is a hypothetical, user-defined leaf from FDM.
- The values for COMMON\_COA\_ID are read from the leaf setup table, based on the values written to the user-defined leaf column. You do not need to specify COMMON\_COA\_ID in the map to trigger this code

If you use the COMMON\_COA\_ID field to populate the Chart of Accounts dimension in Express, insert COMMON\_COA\_ID in the COL cell corresponding to the FS.CHRT OF ACCT value in the DIM column. The program logic that performs a lookup of COMMON\_COA\_ID values is ignored in this circumstance.

### **Mapping Hierarchies**

As with the Chart of Accounts dimension, for other dimensions having a hierarchical structure you *must* enter the appropriate identifier so that the program can distinguish between leaf and node-level values for that dimension.

In the example, the entry HI.AA12345 defines the leaf and node-level values for the FS.ORG UNIT dimension.

## Selecting the Aggregation Code

Typically, one of two aggregation codes are used in FDM. Enter one of the following two values in the DIM column for ACCUM TYPE:

ACCUM_TYPE		
Code	Code Definition	
A	Aggregate	
D	Detail	

Defining the Parameters for FS.WM\_ENTRY STD200 and STD300 are seeded dimension values that pair with the consolidation code of 200 for budget values and 300 for forecast values. These dimension values represent the seeded mapset entries in FS.WB CATALOG.

Seeded Dimension Value	FDM Consolidation Code	Description
STD200	200	Budget values
STD300	300	Forecast values

When you create FS.WM\_ENTRY dimension values (mapsets) for user-defined planning items you can either copy the FS.WM\_MAP values STD200 or STD300 or enter values manually. You have the option of using predefined and user-defined values in any combination.

## Table Integrity and Data Rules When Setting Parameters

This section describes:

- The features of the writeback program that ensure LEDGER\_STAT table integrity
- Rules that maintain data consistency between Budgeting & Planning and FDM

## Table Integrity

Table integrity refers to the following:

- Loading data to the LEDGER\_STAT table only for leaf and financial element values that have been defined in FDM and that exist in the FDM Leaf Setup tables.
  - Leaf and node-level dimension values and financial elements that exist in Budgeting & Planning but do not exist in FDM are not loaded to the staging table by the writeback routine.
- Excluding orphaned dimension values in Budgeting & Planning from being loaded to the staging table.
  - Only leaf-level dimension values contained in the hierarchy specified for use in loading data and existing in FDM Leaf Setup tables can be loaded.
- Avoiding the creation of rows in the staging table for loading into LEDGER\_ STAT that contain either all zeroes or all NA values in the Express database.

Validating Budgeting & Planning Leaf and Financial Element Values In order to successfully load data for Budgeting & Planning dimension values into FDM, the dimension values must already exist in FDM as leaves or previously defined Financial Element ID values. This approach ensures that the LEDGER STAT table is insulated from the introduction of data for leaf values that have not been established in FDM.

The writeback program excludes from the load to the staging table, data for dimension values that do not exist in leaf setup, and writes most of those excluded values to a log file (if you decide to create one). You also have the ability to run a utility program, FS.WB\_CHK\_RJCT, that identifies values that will be rejected, in advance of running the writeback program. You can use this utility to identify leaf values that you will need to create in FDM in order to load data for them, prior to running the program.

### **Validating Financial Elements**

Valid financial elements begin with the single letter prefix of "F," followed by numerical values matching the numerical values of financial elements in FDM.

The following table describes program behavior if you attempt to load an invalid financial element:

If the financial element	Then the program
Begins with "F" but the numerical values do not match financial element values in FDM.	Does not load the data, writes the invalid financial element to the log file (if created), and proceeds to the next data element.
Begins with an alpha prefix other than "F"	Aborts

**Note:** If you plan to load a user-defined financial element with an 'F' prefix, you must first add the financial element to FDM before running the program.

Because certain types of invalid financial elements cause the writeback program to abort, financial elements are validated first when the program is executed.

### Validating Other Leaf Values

Other Budgeting & Planning dimension values, such as organizational units, without equivalent values in the FDM leaf setup tables are treated as invalid. The program writes those dimension values to the log file.

### **Excluding Orphans and Nodes**

The program excludes data for both orphan and node-level dimension values from being loaded to the staging table. Orphan and node-level dimension values are not written to a log file.

To distinguish orphan and node-level dimension values from leaf values the program uses the hierarchy values you specify when the program is run.

FDM Columns Without Corresponding Express Dimensions When the staging table is created in FDM using the scripts provided for that purpose, the columns that are created will include the same columns that exist in the LEDGER\_STAT table itself, with the exception of the LEDGER\_STAT table's Year-To-Date columns (YTD\_ 01...YTD\_12). While the majority of those columns are populated with corresponding values from the Express database, several columns do not exist in Express. These columns must still be populated with a value in the LEDGER\_STAT table, as the table and Oracle Financial Services Applications (OFSA) software do not support columns with null values.

Columns that exist in LEDGER\_STAT but not in Express are populated in the staging table by the writeback program, using defaults that are entered with other program parameters in FS.WM\_CATALOG. For more information on FS.WM\_ CATALOG see "Setting Parameters for FS.WM\_CATALOG".

**Zero or NA Values in Budgeting & Planning** The program excludes from the staging table any row of data in the application that contains either all zeros or NA.

### **Data Rules**

Data rules refer to:

- Determining the definition of a fiscal year
- Aggregating year-to-date values for a fiscal year
- Specifying date ranges to load

Defining Fiscal Year Values If you use a fiscal rather than calendar year, the start and end months chosen for the Budgeting & Planning load routine convert automatically to the appropriate months for your fiscal year when loaded into the staging table.

For example, data stored in Budgeting & Planning for October 1999 converts to Month 1 if your fiscal year start month in FDM is 10.

The fiscal year as stored in FDM governs the fiscal year definition, overriding the Budgeting & Planning definition if they differ.

Calculating LEDGER\_STAT Year-To-Date Values The LEDGER\_STAT Load utility is used to load data from the staging table to the LEDGER\_STAT table. The routine automatically calculates values for the year-to-date columns and populates them in the LEDGER STAT table, based on the monthly values loaded from the staging table and the Aggregation Method specified in Leaf Setup for the Financial Element dimension in FDM. These values are calculated based on the fiscal year definition in the Fiscal Year Info table in FDM.

It is possible to have different fiscal year parameters established for FDM than those established for the Express database. In this circumstance, the calculated year-to-date values in the LEGDER\_STAT table will differ from the aggregated Quarter and Year time bucket values in the Express database.

Specifying Range of Dates to Load Any range of monthly time values can be loaded from Budgeting & Planning to the staging table for subsequent loading to the LEDGER\_STAT table. The range is specified by populating the STARTMONTH and ENDMONTH properties of the FS.WB PROP dimension of FS.WB CATALOG. For more information on FS.WB\_CATALOG see "Setting Parameters for FS.WB\_ CATALOG".

Note the following regarding date range selection:

- Your date selection can span more than 12 months
- The selected data range can begin in one fiscal or calendar year and end in another

Regardless of the range of monthly time values specified for loading, even if fiscal or calendar year settings differ between Express and FDM, the writeback routine maps the monthly buckets in Express to the appropriate time buckets in the staging table, based on the FDM fiscal year definition reflected in the OFSA\_FISCAL\_ YEAR\_INFO table.

## **Loading Data From User-Defined Planning Items**

You can load data from a user-defined planning item following the principals outlined in this chapter. Note, however, that the user-defined planning item *must* be dimensioned by at least the following four dimensions:

- Chart of Accounts (FS.CHRT\_OF\_ACCT)
- Organizational Units (FS.ORG\_UNIT)

- Financial Element (FS.FIN\_ELEM)
- Time (TIME)

If any of these dimensions do not exist in your user-defined planning item you will not be able to load data from your planning item to the staging table.

## **Example of a Mapped Load Procedure**

The diagram that follows illustrates mappings for a completed load procedure and provides examples for each of the three dimension/column relationships discussed in the section "Mapping Express Dimensions to Staging Table Columns" in this chapter. It also includes other aspects of either the writeback procedure or the LEDGER STAT load utility in generating values for the LEDGER STAT table.

In this example the start month is January, 1999 and the end month is December, 1999.

The following sections describe key aspects of the load procedure example.

### One-To-One Relationships

Data in the table storing FS.FIN\_DATA values have one-to-one relationships with columns in the staging table and the LEDGER\_STAT table.

### Filtered Data

Filtered data from Budgeting & Planning is defined for FS.STRATEGY and FS.FORECAST as MOMENTUM and BASE. Each has a single dimension value specified for loading.

## FDM Columns Without Express Dimensions

Four values in FS.WM CATALOG are FDM columns in the staging table and LEDGER STAT table but do not have corresponding dimension values in Express. The LEDGER STAT load utility enters default values for these columns unless you specify an input value.

### Other Embedded Processes

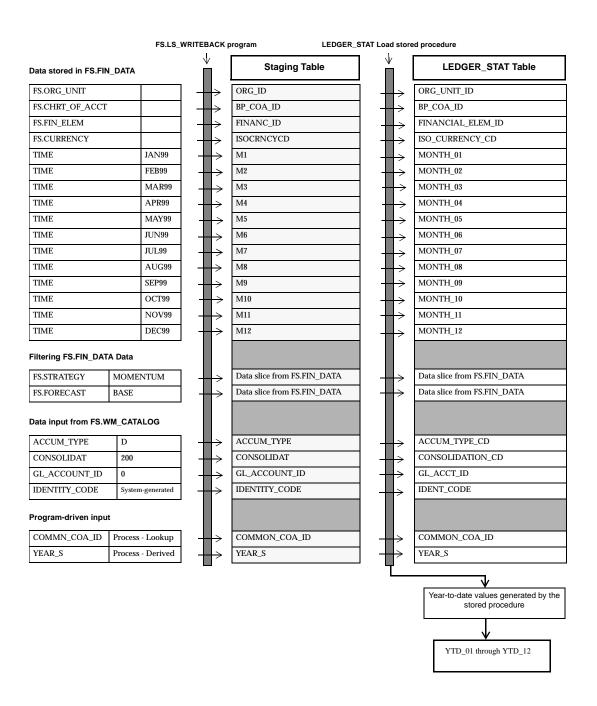
The writeback procedure also generates program-driven values.

For example, the value input to the YEAR\_S column in the staging table comes from the monthly time values you load.

If the COMMON COA ID is not the FDM source field for the Chart of Accounts dimension then the COMMON\_COA\_ID column is populated by performing a lookup against FDM. The value returned is the COMMON\_COA\_ID value mapped to the individual BP\_COA\_ID value in the FDM Leaf Setup tables that is the source for the Chart of Accounts dimension. The program automatically performs this look up therefore it is not necessary to explicitly mention the COMMON\_COA\_ID column to trigger this functionality.

Note that in the following diagram BP\_COA\_ID is a hypothetical, user-defined leaf field created in FDM.

The LEDGER\_STAT Load utility is designed to calculate and write year-to-date (YTD) values to the LEDGER\_STAT table during the loading.



### Staging Table and LEDGER\_STAT Column Names

Column entries for FS.WM\_CATALOG use abbreviated forms of the column names in the LEDGER\_STAT table. The following table compares the two:

Column Names for the Staging Table	Column Names for LEDGER_STAT
ACCUM_TYPE	ACCUM_TYPE_CD
CONSOLIDAT	CONSOLIDATION_CD
FINANC_ID	FINANCIAL_ELEM_ID
ORG_ID	ORG_UNIT_ID
GL_ACCT_ID	GL_ACCOUNT_ID
COMMON_COA_ID	COMMON_COA_ID

When mapping between the Express dimensions and staging table columns be sure to use the abbreviated forms provided.

For user-defined leaves, however, you can create your own staging table column names. You can find the abbreviations for user-defined leaves in the DBF NAME column of the OFSA TAB COLUMNS table.

## **Executing the Express Program**

This section describes the following:

- Prerequisites to running the program
- Program script

## **Prerequisites to Running the Program**

Before executing the Express program you must meet the following conditions:

- Attach FSBPTOOL read-only
- Attach the Super Administrator personal database read/write without uncommitted changes

Use either the graphical interface or the command line in Express Administrator to complete these tasks.

It is important the you save your uncommitted changes before attaching the personal database because the program detaches this database as part of the process, which causes any uncommitted changes to be lost.

Either save your changes from the File -> Save command in the interface or issue an Update command from the command line in Express Administrator.

## FS.LS\_WRITEBACK Syntax

Run the program from the Express Administrator command window, using the following command:

FS.LS\_WRITEBACK(<db connectstring>,<wb\_entry>,<boolean:log rejects>)

### where:

Entry	Description
<db connectstring=""></db>	<username>/<password>@<databasename> where <databasename> is the name of FDM</databasename></databasename></password></username>
<wb_entry></wb_entry>	A valid FS.WB_ENTRY value
<boolean: log="" rejects=""></boolean:>	YES = log rejected data NO = do not log rejected data The default setting is NO

The following is an example of an FS.LS\_WRITEBACK call:

call FS.LS WRITEBACK('ofsa/ofsa@ofsa', 'BUDGET', YES)

## **Executing the LEDGER\_STAT Load Utility**

Load data from the staging table to the LEDGER\_STAT table using the LEDGER\_ STAT load utility. Refer to the "FDM Utilities" chapter in the Oracle Financial Services Installation and Configuration Guide for detailed instructions on completing the load process.

## Important Information About the Load Utility

When preparing the load utility note the following:

- When you create the staging table be sure to set the table-creation script to load all months rather than one month at a time
- The FS.LS\_WRITEBACK program populates the ls\_load\_batch table as part of the procedure. You do not need to add entries to this table manually.

### Executing the LEDGER\_STAT Load Procedure for Budgeting & Planning

This section describes the final procedure to follow in completing the load process.

Execute a PL/SQL procedure (BP\_LEDGER\_STAT\_WRITEBACK) in OFSA\_UTIL. Note the following arguments when you execute this procedure:

- p sequence IN NUMBER is the SEQUENCE number identifying the row from OFSA LS LOAD BATCH to be loaded
- p\_consolidation\_cd IN NUMBER is either 200, 300, or 310

Before the procedure will run there must be a row in OFSA LS LOAD BATCH with SEQUENCE = p\_sequence, and the LOAD\_TABLE\_NAME table should exist and contain data.

For p_consolidation_cd	_cd The program takes the following action		
200	■ For p_consolidation_cd = 200, rows in the LOAD_ TABLE_NAME table should have consolidation_cd = 200		
	<ul> <li>For p_consolidation_cd = 200, DELETE from LEDGER_ STAT where consolidation_cd = p_consolidatioin_cd</li> </ul>		
300	■ For p_consolidation_cd = 300, rows in the LOAD_ TABLE_NAME table should have consolidation_cd = 300		
	■ For p_consolidation_cd = 300, DELETE from LEDGER_ STAT where consolidation_cd = p_consolidation_cd		
310	■ For p_consolidation_cd = 310, rows in the LOAD_ TABLE_NAME table should have consolidation_cd = 300		
	■ For p_consolidation_cd = 310, DELETE from LEDGER_ STAT where consolidation_cd = 310, then UPDATE LEDGER_STAT set consolidation_cd = 310 where consolidation_cd = 300		

### Syntax for OFSA\_UTIL.BP\_LEDGER\_STAT\_WRITEBACK

The following is the syntax for this call:

- Log in to SQLPlus as the OFSA database owner.
- 2. Turn on messages:

```
SQL>set serveroutput on
```

Execute the procedure, similar to the following example:

```
SQL>execute ofsa util.bp_ledger_stat_writeback (1,300)
```

In this example, the sequence number is '1' and the consolidation code is '300.'

### Arguments

- p\_sequence IN NUMBER is the SEQUENCE number identifying the row from OFSA\_LS\_LOAD\_BATCH to be loaded
- p\_consolidation\_cd IN NUMBER is either 200, 300, or 310

### Validate the Parameters

- $p_{consolidation\_cd} = 200, 300, or 310 and$ :
  - for p\_consolidation\_cd = 200, rows in the LOAD\_TABLE\_NAME table should have consolidation\_cd = 200;
  - for p\_consolidation\_cd = 300 or 310, rows in the LOAD\_TABLE\_NAME table should have consolidation cd = 300;

If an error occurs at this point, quit the procedure, otherwise continue

### **Delete LEDGER\_STAT Rows**

- For p\_consolidation\_cd = 200 or 300, DELETE from LEDGER\_STAT where consolidation\_cd = p\_consolidatioin\_cd
- For p\_consolidation\_cd = 310, DELETE from LEDGER\_STAT where consolidation\_cd = 310, then UPDATE LEDGER\_STAT set consolidation\_cd = 310 where consolidation\_cd = 300

### Call OFSA\_UTIL.LEDGER\_STAT\_LOAD

Execute this call.

## Setting up the Express Server

This chapter explains how to set up and run the Express server for the Budgeting & Planning application.

Before an end user can log into the application the System Administrator, DBA, or Super Administrator must set up the connection to and launch the Express server. Noncompletion of either task rejects all log in attempts by end users.

**Note:** Refer to Oracle Financial Services Installation and Configuration Guide for instructions on starting the Web Listener

## Starting the Oracle Express Service

This section is intended for individuals such as System Administrators, DBAs, or the Super Administrator. These individuals are responsible for setting up and running the Express server.

Starting the service is a prerequisite that enables the Web Listener to connect to Express databases.

## Using Instance Manager

Begin the process by accessing the Express server. The following steps provide an example in an NT environment.

Access the Instance Manager from this path:

Start/Programs/Express Server 6.3.0/Express Instance Manager

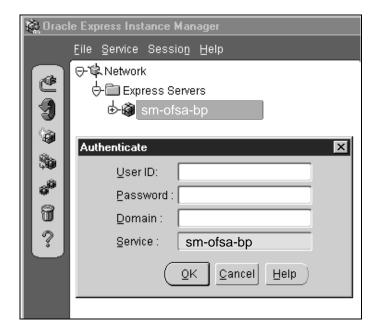
The Oracle Express Instance Manager interface appears.

2. Expand the following nodes in this sequence – Network -> Express Servers – to display the Express server to which you want to connect.

If the name of the server does not appear from the service menu, select the Discover Nodes option. Enter the name of the server in the text box and click OK.

Note that your organization may be using multiple Express server instances. Be sure you know which instance is dedicated to the Budgeting & Planning environment.

Double-click on the appropriate Express server name. The Authenticate dialog box appears.



In this example, the server name is sm-ofsa-bp.

- Type your User ID and Password. These are required entries.
- Type a Domain entry if required for your organization's overall system environment.

### Click OK.

The dialog box closes, replaced by a hierarchical tree in the unshaded area of the Instance Manager.

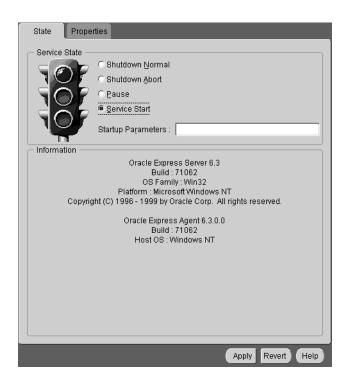
Note that an error message appears if you typed incorrect entries. Retry your entries. If the error message persists, contact your System Administrator or DBA.

Proceed to the next section to launch the Express server. This is also done from the Instance Manager.

## **Running the Express Server**

This task starts the Express server. To complete this task follow these steps:

Click Instance in the hierarchical tree. The Service State dialog box appears.



Click the Service Start radio button.

- 3. Click Apply. The light changes from red to yellow, indicating that the transition has begun. When the light changes to green the server is running. Proceed to the next step.
- Click File -> Exit.

The steps in these two sections connect the Budgeting & Planning environment to Express server and place the server in a run mode. Without both of these steps completed end users cannot log in.

# Part II

# **Using Budgeting & Planning**

Part II provides information for end users on how to use the application to enter budgeting data and produce reports.

### **Audience**

This section of the reference guide is written for individuals within your organization who have direct responsibility for contributing data to the budgeting process, including the following:

- Super Administrator
- Sub-Administrators
- Business Unit Managers

### Content

This section includes the following chapters:

- Chapter 9, "Logging In"
- Chapter 10, "Features of the Main Forecasting Window"
- Chapter 11, "Functions Available Through the Interface"
- Chapter 12, "Using the Selector"
- Chapter 13, "Using Input and Calculation Tools"
- Chapter 14, "Using the Maturity Mix End-User Interface"
- Chapter 15, "Generating Reports"

# Logging In

This chapter describes how to log in to the Web-enabled version of Budgeting & Planning.

Prerequisites to logging in to the application include:

- Internet Explorer version 5.0 (or later) or Netscape version 4.72 (or later) installed on your computer
- JInitiator 1.1.7.29 (Java plug-in) installed
- Universal Resource Locator (URL) used by your organization to access the application. The URL should be provided to you prior to launching the application the first time.

One of the prerequisites is a specific Java plug-in (JInitiator 1.1.7.29) that may not be installed on your computer. If not, this chapter explains how to download and install the plug-in. Once installed, you do not need to perform this task again.

This chapter presents the following topics:

- Launching the Application the First Time
- Downloading and Installing JInitiator for Internet Explorer
- Downloading and Installing JInitiator for Netscape
- Logging In to the Application
- If Your Login Fails
- **Troubleshooting**

## Launching the Application the First Time

The Web environment for Budgeting & Planning requires a Java plug-in called Jinitiator 1.1.7.29. If not installed on your computer, the application provides prompts to help you download and install this version on your computer.

> **Note:** Before you enter the Budgeting & Planning URL the first time, close all applications running on your computer.

### Entering the URL to Launch Budgeting & Planning

Before logging in to the application you need to open your Web browser and enter the application URL in the address field. The URL has a format similar to the following:

http://bpserver/obpweb/obp.html

If you enter an incorrect URL the following types of messages appear, depending on which browser you use:

Browser	Message
Internet Explorer	Page not found
Netscape	The requested URL is not found

Verify that you entered the correct URL. If you did, then contact your DBA or System Administrator for help.

## Viewing the Pre-Login Page

After entering the application URL in the address field, a pre-login page appears, which provides important information regarding Jinitiator.

### Jinitiator is Installed

If your computer has JInitiator version 1.1.7.29 installed, the text "Loading Java Applet..." appears on the pre-login page, followed by the Connect to Express Server dialog box. The login procedure begins at this point. See "Logging In to the Application," for the steps to follow.

### Jinitiator is Not Installed

If your computer does not have JInitiator 1.1.7.29 installed and you use Internet Explorer as your browser, the application automatically begins the download and installation process from the pre-login page. Refer to "Downloading and Installing JInitiator for Internet Explorer," and follow the steps in that section.

If you use Netscape as your browser a puzzle piece appears on the pre-login page with the text "Click here to get the plug-in." Refer to "Downloading and Installing JInitiator for Netscape," and follow the steps in that section.

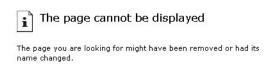
### Server Does Not Respond

You cannot open your browser to begin the login process or download and install JInitiator if the server is not running. A nonresponsive server generates error status messages from both browsers.

If you are using Netscape, the message indicates that there is no response from the server.



If you are using Internet Explorer the message contains an introductory title indicating that the page cannot be displayed.



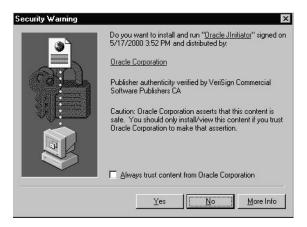
In the event that either of these messages appear, contact your System Administrator or DBA to verify that the server is not running. If it is, other issues may be preventing you from logging in, which will require additional help.

## Downloading and Installing Jinitiator for Internet Explorer

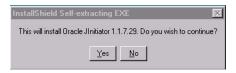
This section explains how to download and install JInitiator 1.1.7.29 on your computer using Internet Explorer.

With your Internet Explorer browser open type the Budgeting & Planning URL in the address field.

The pre-login page appears. Note the progress indicator on your status bar at the bottom of your screen. When finished the Security Warning dialog box appears.



- Click Yes to initiate the download process.
- Click Yes in the InstallShield Self-extracting EXE message box.



This step launches the InstallShield wizard, which guides you through the installation. Click Next in response to each prompt to accept the default settings. The wizard then runs the installation.

Click Finish in the Setup Complete dialog box.

On the pre-login page the text "Loading Java Applet..." appears, followed by the product screen and Connect to Express Server dialog box.

You can now log in to Budgeting & Planning. See "Logging In to the Application," in this chapter for the steps to follow to complete your log in.

## Downloading and Installing Jinitiator for Netscape

The section explains how to download and install Jinitiator 1.1.7.29 on your computer using Netscape.

## **Prerequisites**

Before you enter the Budgeting & Planning URL be sure that you have:

- **Enabled Java and Javascript**
- Disabled SmartUpdate
- Removed SmartDownload (if present) from your computer

If you are unsure whether or not these elements are set correctly or whether SmartDownload has been removed contact your DBA, System Administrator, or Super Administrator for help.

## **Downloading Jinitiator**

This section describes how to download JInitiator to your computer:

With your Netscape browser open type the Budgeting & Planning URL in the address field.

The pre-login page appears. Note the puzzle piece and text "Click here to get the plug-in."



Click the puzzle piece to initiate the download.

Plug-in Not Loaded X Information on this page requires a plug-in for: application/x-jinit-applet;version=1.1.7.29 Navigator can retrieve the plug-in for you from: /obpweb/obpjinit.html The SmartUpdate feature makes it easy to install new plug-ins. To take advantage of SmartUpdate, you must enable Java, JavaScript and AutoInstall in the Advanced panel of the Preferences, then click the plug-in icon on the page. What would you like to do? Get the Plug-in Cancel

The Plug-in Not Loaded dialog box appears.

## Click Get the Plug-in.

The JInitiator Download and Installation Instructions page appears. This page contains the link that launches the download process.

Click the "Download Oracle JInitiator Installer" link.

The Save As dialog box appears with jinit11729.exe highlighted in the File Name field. Download this file to your computer. This file contains the program file that guides you through the installation process.

You have discretion in deciding where to place this file. The C:/Temp directory may be the logical location.

**Note:** Remember where you place jinit11729.exe because you will need to locate this file later to complete the installation task.

- Click Save. The Saving Location progress indicator provides a graphic display of the system's progress in downloading the jinit11729.exe file.
- Close the JInitiator Download and Installation Instructions page.

This enables you to access the pre-login page, which you will do in the next section.

## Installing Jinitiator

This section describes how to complete the installation of JInitiator 1.1.7.29.

- Locate jinit11729.exe and double-click the file.
- Click Yes in the InstallShield Self-extracting EXE dialog box.



This step launches the InstallShield wizard, which guides you through the installation. Click Next in response to each prompt to accept the default settings. The wizard then runs the installation.

- Click Finish in the Setup Complete dialog box.
  - The application returns you to the location where you launched jinit11729.exe.
- 4. Click the puzzle icon in the pre-login page. Note that the text has changed to "Click here after installing the plug-in."

"Loading Java Applet..." replaces the puzzle piece and text, followed by the product screen and Connect to Express Server dialog box. See "Logging In to the Application," for information on beginning your log in.

**Note:** 'After installing JInitiator you can delete the jinit11729.exe file from your computer.

## Logging In to the Application

Follow these steps:

1. Open your Web browser and type the Budgeting & Planning URL in the address field.

The pre-login page appears with the text "Loading Java Applet." This indicates that JInitiator 1.1.7.29 has been installed and that you can log in to the application without having to first download and install the plug-in.

If a puzzle piece appears on the pre-login page you must first download JInitiator before continuing. Refer to "Launching the Application the First Time," in this chapter, for the information you need.

Type your username and password in the Connect to Express Server dialog box and click OK.

The Planning Item Selector dialog box appears:

If	First	Then	And
You have multiple Oracle Financial Analyzer user names assigned to you	Open the User Name list box and select the user name you want to log in as	Select the planning item you want to open	Click Continue.
You have one user name assignment		Select the planning item you want to open	Click Continue.

The selected planning item interface and the Selector appear. Make your data selections to begin your session.

**Caution:** During your session do not close your Web browser. Doing so closes both your browser and the application, resulting in loss of data.

## If Your Login Fails

Common reasons for failing to log in:

- JInitiator 1.1.7.29 not installed
- Not able to connect to Express server
- Incorrect username or password

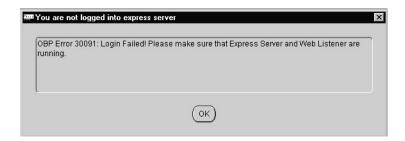
## Jinitiator Not Installed

If you enter the Budgeting & Planning URL and your computer remains idle, look for the puzzle icon on the pre-login page with text indicating that you need to get the plug-in. Refer to the instructions specific to your browser for downloading and installing Jinitiator 1.1.7.29.

If, after installing Jinitiator, you still cannot log in, other problems are causing your login to fail, which will require help from your DBA or System Administrator. Refer to "Troubleshooting," in this chapter for additional information.

## Not Able to Connect to Express Server

The Express server needs to be running in order to log in to the application. If it is not running your login will fail and you will receive an error message pertaining to the status of the Express server and Web Listener.



You should contact your DBA or System Administrator to verify the status of the the Express server. If it is not running, you will have to wait until it is restarted before logging in.

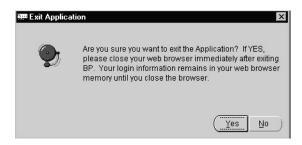
## Incorrect User Name or Password

You have entered your user name or password incorrectly if the Username and Password Required dialog box appears.

The following steps describe what to do:

- Enter your username and password again and click OK. You should perform this step to verify that you did not enter either one incorrectly.
  - If either your username or password are invalid, the same dialog box reappears.
  - You must terminate the login procedure and exit the application. To do so, proceed to step 2.
- Click Cancel.
  - The 'You are not logged into Express server' message appears.
- Click OK.
  - The Connect to Express Server dialog box reappears.
- Click Cancel to close the login procedure.
- Close the Budgeting & Planning interface (File -> Exit).

The Exit Application dialog box appears.



- Click Yes to exit the application.
- 7. Close your browser to completely terminate the session, then contact your DBA or System Administrator for help.

## Your Session Timed Out

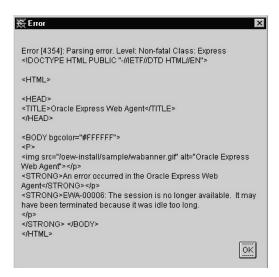
The system automatically disconnects you if inactivity during your session reaches the pre-set time limit established by your DBA or System Administrator.

If you receive either one of the following two messages, you have remained inactive beyond the specified time parameter and your connection has been terminated.

## WebAgent Timed Out Error Message:



## **Error Message:**



Click OK to clear each message, then exit the application. You cannot save any data entries or calculations once the system disconnects you.

**Note:** You cannot save your entries or calculations when your session times out, even if you accept the messages which appear to indicate that the application is saving your work.

To continue using the application, start a new session by exiting Budgeting & Planning, closing your browser, and re-launching the application.

## **Troubleshooting**

This section explains how to provide diagnostic information to your DBA or System Administrator.

If you continue having problems logging in to the application after downloading and installing Jinitiator the approaches provided in this section may provide helpful information.

## **Diagnosing JInitiator-Related Problems**

Login problems may result from Jinitiator-related issues other than installation of the correct version. If your computer sits idle after entering the URL, look for either the puzzle icon or the message "Loading Java Applet..."

If the puzzle icon appears, Jinitiator has not been loaded or not loaded correctly. Click the icon and follow the instructions to download and install the plug-in again. You can also refer to the section in this chapter that explains how to download and install JInitiator for the browser you are using.

If the text "Loading Java Applet..." appears, JInitiator has been installed. If your computer remains idle while this text appears other issues may be causing your login to fail.

### Verifying the Installation of Jinitiator 1.1.7.29

You can verify the installation of JInitiator by following these steps:

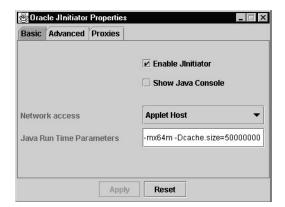
- Click Start and display the list of Programs on your computer.
- Look for JInitiator Control Panel 1.1.7.29.

If you cannot locate this item and have completed the download and installation steps, other problems may be preventing you from logging in, which will require help from your DBA or System Administrator.

## **Diagnosing Other Problems**

If you have installed Jinitiator 1.1.7.29 and the application still does not start, you can provide other information that may help your DBA or System Administrator locate the problem.

- Click Start and display the list of Programs on your computer.
- Click JInitiator Control Panel 1.1.7.29.



The Oracle JInitiator Properties dialog box appears.

- 3. Check Show Java Console.
- **4.** Click Apply to enable the console, then close the dialog box.
- **5.** Launch the application.

A Java Console appears on your screen providing information about the Budgeting & Planning application. Conveying this information to your DBA or System Administrator may help locate your problem.

To disable the Java console follow the preceding steps, and uncheck the Show Java Console box.

# **Features of the Main Forecasting Window**

This chapter provides detailed information on the components of the main forecasting window of the Financial Plans planning item. This chapter also describes how to select dimension values for display in the interface and explains how financial elements are filtered, based on the Chart of Accounts values you select.

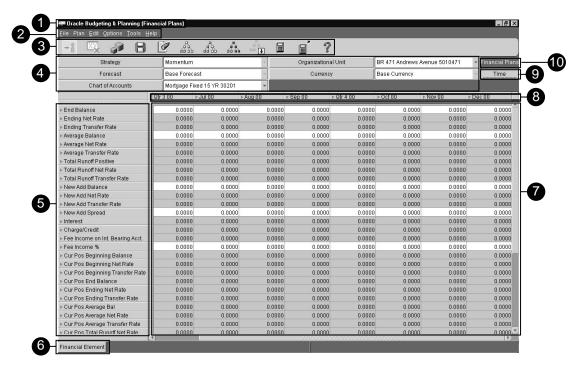
Note that some application interfaces, such as supporting interfaces like Interest Rates, may vary from the main forecasting window, however, the procedures for displaying data in the interface or paging through dimensions remain the same.

This chapter presents the following topics:

- Components of the Main Forecasting Window
- Selecting and Displaying Dimension Values
- **Paging Through Dimension Values**
- **Displaying Financial Elements**

# **Components of the Main Forecasting Window**

This section explains the components of the main forecasting window.



The following table names and describes the window components:

1	Window Title	Application name with the active planning item in parentheses. The main forecasting window of the Financial Plans planning item appears in this example.
2	Menu Bar	Provides access to multiple, related functions for each item on the bar.
3	Tool Bar	Provides short cuts for performing the specific functions represented by the icons.
4	Planning Item Dimensions	Paging dimensions and dimension values.
5	Down dimension values	Values for the Down dimension appear as rows in the grid.
6	Down dimension tile	The dimension name for values occupying the rows in the grid.

7	Display grid	Data display area.
8	Across dimension values	Values for the Across dimension appear as columns in the grid.
9	Across dimension tile	The dimension name for values occupying the columns in the grid.
10	Planning Item name	The planning item serving as the source for the dimensions and dimension values and data appearing in the display grid.

The following sections provide detailed information on the Menu and Tool bar selections.

## The Menu Bar

This section details the functions that you can perform from the Menu bar.

### File Menu

Menu Item	Description
Login	Log in to the Budgeting & Planning application using this selection. The login function can also be accessed from the Tool bar.
Selector	The Selector is the query tool used to retrieve subsets of data from the database for the active planning item.
Save	This menu item enables you to save data you have input and cash flow calculation processes that you have run. By selecting this item you also trigger the submit function, which submits your saved data to the database.
Close	Close a dependent planning item (such as Maturity Mix Override or Interest Rate) using this menu item.
Exit	Close the application using this menu item.

### Plan Menu

Menu Item	Description
Financial Plans	Open the Financial Plans planning item using this selection, if this planning item is not already open in the main forecasting window.
Optional Planning Items	Open other planning items to which you have access from this option.

### **Edit Menu**

Menu Item	Description
Copy/Paste	Use these selections to copy and paste data in the display grid.

### **Options Menu**

The Options Menu becomes active after you populate the main forecasting window with data.

Menu Item	Description
Spread Assumptions	This is a dialog box that defines how to allocate node-level data to leaves underneath that node.
Calculate	This selection takes the values that have been input and calculates results for the related financial elements (such as earnings).
Calculate with Partial Solve	This selection executes the calculate routine and aggregates data but only for hierarchy points affected by changes you have input.
Calculate with Full Solve	This selection executes the calculate routine and then aggregates <i>all</i> points on all hierarchies (solving the entire database) regardless of whether or not other nodes in the hierarchy have been impacted by your changes.

Menu Item	Description
Maturity Mix Override	This selection opens the Maturity Mix Assumptions interface for end-user input of maturity mix and pricing spread assumptions for new business.
	Note that this planning item may not be available to all users.
Interest Rate	This selection opens the Interest Rate interface to view interest rate assumptions.
	Note that this planning item may not be available to all users.

## **Tools Menu**

Menu Item	Description
Target Input	Choose this option to open the Target Input Tools dialog box.
Source to Target	Choose this option to open the Source to Target Input Tools dialog box.
Show/Hide Reports	Choose this option to open and close the Reports list.

## Help Menu

Menu Items	Description
Contents	Online documentation
Index	Index of topics in the online documentation
Search for Help On	Not available
Oracle Financial Services Library	Library of online documentation for the OFSA product suite
Using Help	Information on how to use online help.
About	Information about this version of Budgeting & Planning.

## The Tool Bar

This section details the functions that you can perform from the Tool bar.

Icon	Label	
+1	Log in Dialog	Opens the Connect to Express Server dialog box. This dialog box also serves as the log in for the Budgeting & Planning application.
XX	Close Variable	Closes a dependent variable (planning item). This icon is disabled and greyed-out if a host variable is open. When you close the dependent variable the host variable remains intact.
	Selector	Opens the Selector query tool, which you use to retrieve subsets of data for the active planning item.
8	Save the Changes	Opens the Save Changes dialog box with the option to either save or not save your changes.
	Show/Hide Reports	Opens the Reports list to view the list of reports from which to make your selection. If the Reports list is open, clicking this icon closes it.
0 60 60 60	Calculate	Opens the Cash Flow Calculation dialog box with the option to either launch or cancel the calculation process.
	Calculate with Partial Solve	Opens the Cash Flow Calculation - Partial Solve dialog box with the option to either launch or cancel the partial solve calculation process.

Icon	Label	
	Calculate with Full Solve	Opens the Cash Flow Calculation - Full Solve dialog box with the option to either launch or cancel the full solve calculation process.
	Spread Assumptions	Opens the Spread Options dialog box, which enables you to select spread options for Time, Rate/Spread and Other dimensions.
	Target Input Tools	Opens the Target Input tools interface to change existing data, based on the calculation method selected.
	Source to Target Input Tools	Opens the Source to Target Input tools interface to either copy existing source data to a target destination or perform calculations on the source data to change it as it is being sent to the target destination.
?	Help	Provides access to online help for cash flow calculations and Express.

# **Selecting and Displaying Dimension Values**

Choose dimension values for the main forecasting window using the Selector. See Chapter 12, "Using the Selector" for detailed information on how to use this tool.

Data is passed to the main forecasting window after you make your dimension value selections and close the Selector.

Data appearing in the grid is governed by the following two factors:

- The active dimension values in the interface
- The dimension tiles controlling the column and row display

## **Displaying Active Dimension Values**

Only data for active dimension values can appear in the display grid of the main forecasting window. Active dimension values are those that appear in the fields to the right of the dimensions.

Change the active dimension value by clicking the arrow that opens the dimension list box and then click a new value. This new selection appears in place of the previous active value and changes the values in the display grid.

## Controlling the Across and Down Display of Values

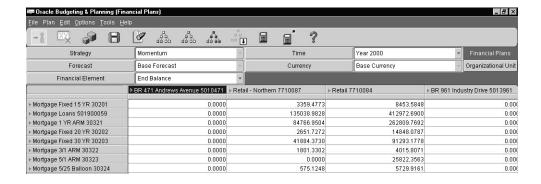
The Across and Down dimension tiles govern the data displayed in the display grid. Refer to the illustration in the "Components of the Main Forecasting Window" section for the location of these tiles.

Use your mouse to change the dimension values appearing in the columns and rows.

To change values, begin by clicking the tile for the new dimension using the left button of your mouse. With the button depressed, move that tile to position it over the dimension being replaced and release the button. The two dimension tiles switch position and data appearing in either the rows or columns of the grid (depending on which tile you decided to replace) now reflects the dimension values of the new tile.

You can also use this procedure to switch the positions of the Across and Down dimensions in the interface.

Appearing below is the main forecasting window as it would appear with Organizational Unit as the Across dimension and Chart of Account as the Down dimension.



# **Paging Through Dimension Values**

You can change the data appearing either the rows or the columns of the grid by selecting a new dimension value from the list box appearing to the right of each dimension. Every time you choose a new value the data in either the rows or columns changes. This action is called paging through the dimension values. The current page of the interface displays only the active dimension values.

# **Displaying Financial Elements**

Financial elements appearing in the interface are linked to the Chart of Accounts values you choose using the Selector. Only the financial elements specified for a particular Chart of Accounts value can appear in the interface. However, additional filtering activities can further limit the financial elements displayed.

### Filtering Financial Elements

The first way is through a variable called FS.FE\_ENABLED, which designates which financial elements appear in the interface and which do not. This is set at the system administration level.

The second way is through the filtering capabilities built into the functionality of the interface. This filtering can occur when you select a node-level value for the paging dimension or when the Chart of Accounts dimension occupies either the Across or Down dimension in the interface.

## Filtering For Node-Level Chart of Accounts

If you select a node-level Chart of Accounts value, only the financial elements common to all of the children of that node appear in the interface. When you change the paging dimension from a node-level value to a leaf-level value then the financial elements displayed are those unique to the leaf-level Chart of Accounts value.

## Filtering For All Node- and Leaf-Level Chart of Accounts

When the Chart of Accounts dimension is one of the paging dimensions, the Budgeting & Planning application displays all of the financial elements that are: 1) Linked to that Chart of Accounts value; and 2) Have been designated to appear through the variable FS.FE ENABLED. Each time you select a new value from the Chart of Accounts dimension the application displays the set of financial elements appropriate to that value.

However, if the Chart of Accounts dimension is either the Across or Down dimension, and the Financial Elements dimension occupies the opposite position, the application displays only those financial elements that are enabled for all of the currently selected Chart of Accounts values.

# **Functions Available Through the Interface**

This chapter explains common functions available on the Menu and Tool bars of the main forecasting window.

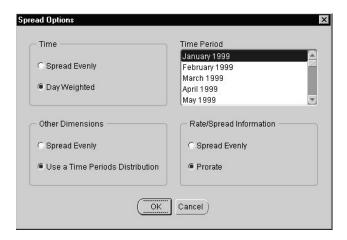
The chapter presents the following topics:

- **Allocating Spread Assumptions**
- **Running Calculation Routines on Data**
- Using the Copy and Paste Functionality
- **Saving Data Input and Calculations**
- Submitting Data to the Database
- Accessing the Interest Rate Interface
- **Error Messages Text Box**

# **Allocating Spread Assumptions**

Access Spread Assumptions from the Options menu on the Menu bar or the Spread Assumptions icon on the Tool bar.

If a value is input at a node level (the summarization of two or more dimension values) the application needs to allocate that input value down to the lowest level. The Spread Options dialog box enables you to determine the allocation methodology to use.



The following table describes how the spread options in the interface perform the allocation calculations.

Note that the last options selected in this dialog box are used for all calculations during a session. If you want to use a different spread assumption method be sure to open this dialog box and reset the values before running your allocation.

If you want to apply different spread options for different inputs the calculation process must be run for each unique set of spread options.

Spread Options Selection	Description
Time	<ul> <li>Spread Evenly: This spreads the parent data value evenly over the child time periods</li> </ul>
	<ul> <li>Day Weighted: This option performs day-weighting calculations on the data value before returning the results to your worksheet</li> </ul>

### Spread Options Selection Description

Selector.

### Other **Dimensions**

These options determine how dimension values other than the Time dimension have amounts allocated to them. The two options are:

- Spread Evenly: This apportions the amounts input at a node level evenly over all subsidiary leaf levels.
- Use a Time Periods Distribution: This uses the time period specified in the Time Period list box to apportion the amount based upon the % of the total that each leaf value contributes for that time period.

The following grid shows how a node-level input of 10,000 is apportioned using these two methodologies:

	Base Month	Spread Evenly	Time Periods Distribution
West Side Division	Jan 2000	Feb 2000	Feb 2000
Elm St. Branch			
Consumer Loans	100	2500	1000
Construction Loans	200	2500	2000
Green St. Branch			
Consumer Loans	300	2500	3000
Construction Loans	400	2500	4000
	1000	10000	10000

Rate/Spread Information	These options determine how node level rate information is allocated to subsidiary leaves. These same two options exist for both rates and balances. Note, however, that a different logic is employed for rates than for balances when using a time periods distribution.
Time Period	Use the Time Period selection box to choose the time dimension value you want to use. The selections from which to choose include all the Time dimension values you established when you set up your budget. Your selections are not limited to the Time dimension values chosen using the

# Running Calculation Routines on Data

Access these calculation routines from the Options menu on the Menu bar or the calculation-specific icon on the Tool bar.

This section describes how to use the following options:

- Calculate
- Calculate with Partial Solve
- Calculate with Full Solve

### **Considerations When Running a Calculation Routine**

Note the following:

- Cash flow values are not calculated automatically, as you input data. To view your results you must select one of these options and run the routine. All inputs entered since the last time you launched a calculation routine are then processed.
- You cannot open the Selector, exit the application, or submit your changes to the shared database without first running one of these routines to calculate your inputs.

### Calculate

Using this selection you can launch the calculation process for each Chart of Accounts / Organizational Unit combination for which data has been input. It does not process data for any nodes above this combination.

### Calculate with Partial Solve

The Calculate with Partial Solve option executes the calculate routine as described above and aggregates data for all hierarchy points (nodes) impacted above it. Where possible, it uses pre-aggregated node amounts for other hierarchy points.

The example in the following table illustrates how this process works. This example uses the Organizational Unit hierarchy and the Commercial Loan account.

The user inputs a new average balance	e (2000) and average rate (12%) for the Elm
Street branch.	

COMMERCIAL LOANS	Average Balance	Average Rate	
Total Bank	**6500	**9.92%	
Division 1	**2500	**11.4%	
Elm Street Branch	*2000	*12%	
Green Street Branch	500	9%	
Division 2	4000	9%	
Pine Street Branch	3000	8%	
Palm Street Branch	3500	7%	

<sup>\*</sup> value input by the user

Executing the Calculate with Partial Solve routine sums up the average balance for all node points impacted by the change. In this example, the impacted node points are Division 1 and the Total Bank.

The routine also weights the average rate by the corresponding average balance to calculate the combined average rate. See the discussion of the physical data model to understand how rates are associated with the corresponding balance.

Notice that, for Division 2, the sum of this division's child nodes does not equal the division balance nor is the average rate accurate, indicating that these values have been input but not re-solved. The Calculate with Partial Solve uses the Division 2 balance in rolling up to the total bank. In this example, therefore, the average balance at the total bank level is the sum of Division 1 (\$2,500) and Division 2 (\$4,000).

This example shows that a partial solve is appropriate only if you are confident that all the other hierarchy points have been satisfactorily solved.

To solve for all hierarchy points select the Calculate with Full Solve option.

### Calculate with Full Solve

The Calculate with Full Solve option executes the calculate routine as described in the other methods, and calculates all hierarchy points in the database over which

<sup>\*\*</sup> new values calculated by the partial solve routine

you have control. It rolls up values whether or not they have been impacted by any input values.

In the following table notice that the values for the Division 2 node have now been updated, following the processing of the Calculation with Full Solve option.

Commercial Loans	Average Balance	Average Rate
Total Bank	**9000	**8.56%
Division 1	**2500	**11.4%
Elm Street Branch	*2000	*12%
Green Street Branch	500	9%
Division 2	**6500	**7.46%
Pine Street Branch	3000	8%
Palm Street Branch	3500	7%

<sup>\*</sup>value input by the user

**Note:** Performance is significantly increased if you solve only those values affected. You should consider using the Calculate with Full Solve option only as a final check to make sure your data rolls up properly.

# Using the Copy and Paste Functionality

Access these functions from the Edit option on the Menu bar.

Use copy and paste to:

- Copy data from Budgeting & Planning to a spreadsheet application
- Paste data from a spreadsheet application to Budgeting & Planning

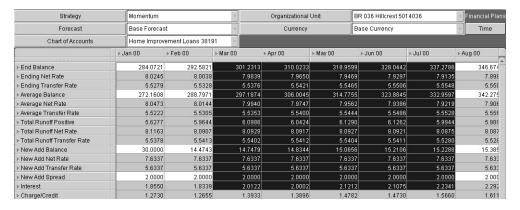
Note that the standard keyboard shortcuts (CTRL-C and CTRL-V) to copy and paste data are not enabled for this release.

<sup>\*\*</sup> new values calculated by the solve routine

## Copying Cells From the Application Into a Spreadsheet

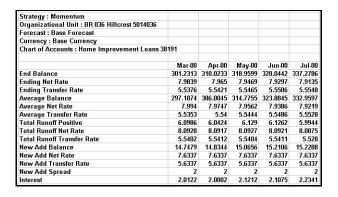
When you copy cells from Budgeting & Planning into a spreadsheet the column and row labels and active paging dimension values associated with the highlighted area are also pasted into the spreadsheet.

The following example shows a block of cells selected to be pasted into a spreadsheet application. The highlighted section includes a subset of the Time and Financial Elements dimensions.



In the following spreadsheet you can see that:

- The column and row labels associated with the selected values, rather than the entire selection of labels, have been pasted into the spreadsheet; and
- The paging dimensions and active values for those dimensions are pasted into the spreadsheet



## Pasting Cells From a Spreadsheet Into the Application

Note the following when pasting data from a spreadsheet application into a Budgeting & Planning interface.

### **Paste Numeric Values Only**

You can paste numeric values into the grid of the interface, but not text labels. If you have used the copy function to extract data out of the grid and want to paste that data back, select only the numeric values.

### Paste Data In Read/Write Cells

The application allows you to paste data into cells designated as read/write but not read-only. Values in read-only cells remain unchanged, even if your paste range overlays them.

### Select A Single Cell to Anchor the Paste Area

When pasting data into the grid use your mouse to highlight the cell representing the upper left corner of the range of cells you want to paste. Then select the Paste option from the Edit menu.

**Note:** If the range of cells you want to paste is larger than range allowed by the grid the application returns an error message.

Error Message When the Range is Too Large Suppose you want to paste two years of new business projections for a particular Chart of Accounts / Organizational Unit combination into the grid. When you selected your Time dimension values using the Selector you chose 12 months rather than 24 months. The result of your paste operation will be an error message because your paste range includes 24 months of data but the grid can only accommodate 12 months.

Rectify this situation in one of two ways. Either open the Selector and chose the additional 12 months, or reduce the amount of data you want to paste to 12 months.

### Avoid Pasting Data into the Maturity Mix Override Grid

The application has been designed to accept only manual entries in the grid of the Maturity Mix Override variable. You cannot use the Paste function with this interface.

### Storing Pasted Data

When you paste data into the grid, the application writes this data to the same temporary storage that holds data you enter manually. When you launch a calculation process, the application moves this data out of the temporary storage and writes it to the Financial Plans planning item.

# Saving Data Input and Calculations

If you have entered data and not run a calculation and saved your inputs you will be prompted to calculate and save before you can perform any of the following operations:

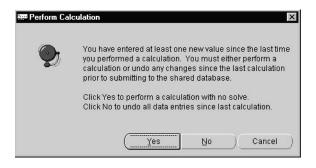
- Opening the Selector
- Switching to another planning item
- Exiting the application

The intent of these prompts is to preserve the integrity of your inputs and make sure that the cash flow financial elements affected by your inputs have been updated.

The following sections provide explanations on the dialog boxes you may encounter.

## **Perform Calculations Dialog Box**

This dialog box prompts you to decide what you want to do with the data you have entered.



If you click	The application
Yes	Processes your data and generates results using the No Solve calculation option.
	See "Running Calculation Routines on Data," in this chapter, for detailed information on each of the available calculation choices.
No	Removes all entered data from the interface from the time that you last ran a calculation routine during your session to this point in time.
	If you have not run a calculation routine during your session the application reverses all of your entries.
Cancel Returns you to the interface without deleting any data or runn calculation routine.	
	If you decide to run a Partial or Full Solve calculation routine, rather than a No Solve routine, you can click Cancel then run the routine you want.

## **Save Changes Dialog Box**

This prompt asks you whether or not to submit your changes to the shared database.



If you click The application	
Yes	Submits your data to the Task Processor, where it is queued with other tasks and entered to the shared database.

If you click	The application
No	Cancels the submission process.
	During a session you may encounter this dialog box multiple times. You can defer the submission of your data to the end of your session by clicking No when you see this dialog box during the session and then click Yes when you save your data to complete your session. This submits all of your work at one time.
	Note: If you decide not to submit your changes and exit the application any input or generated data from calculation routines, since your last save, is deleted and lost.

## **Exit Application Dialog Box**

When you decide to exit the application (File -> Exit) the Exit Application dialog box appears.



If you click	The application
Yes	Terminates your session.
	Be sure to close your Web browser immediately after exiting the application.
No	Returns you to the interface.

# Submitting Data to the Database

End users using the Web-enabled version of Budgeting & Planning do not attach to a personal database. When you complete your work and click Yes in the Save Changes dialog box you submit your inputs and calculations directly to a Task

Processor, which queues all data submissions, and enters them in order to the shared database.

> **Caution:** Once you submit your data and log out of the application you cannot see your changes in the interface in subsequent sessions until the Task Processor updates the shared database.

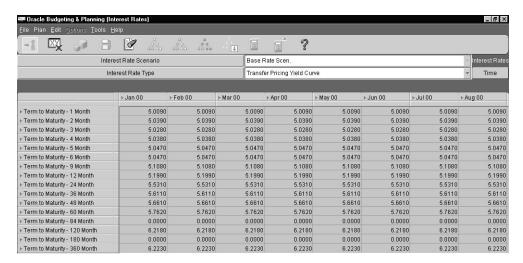
After the Task Processor updates the shared database you can view your changes in the interface. The schedule for updating the shared database is set by the Super Administrator.

# Accessing the Interest Rate Interface

Access the Interest Rate interface from the Options menu of the Menu bar of the Financial Plans planning item.

This interface provides a reference for the interest rate assumptions being used by your organization. You can only view this information. All cells are designated read-only.

Page through the dimension values and switch dimension tile positions the same way you perform these tasks in the main forecasting window.



# **Error Messages Text Box**

When an error occurs in the application, an error text box similar to the one shown below appears:



The message contained in the text box describes the error you have encountered. If you cannot resolve the error and need to contact Oracle Support, the Budgeting and Planning application enables you to copy the text of this error message to an e-mail or text file.

Error Messages	Text	Box
----------------	------	-----

# **Using the Selector**

The Selector retrieves data from the Express database and passes this data to the application's main forecasting window. The Selector's design includes a structured interface to simplify data selection and a group of tools, built into the interface, that enable end users to retrieve data using filtering criteria and analytical processes.

The Super Administrator assigns database access privileges to lower-tiered end users. These privileges define the subset of data an end user can access through this interface.

This chapter presents the following topics:

- Accessing the Selector Interface
- Components of the Selector Interface
- Using the Selector Tools

# Accessing the Selector Interface

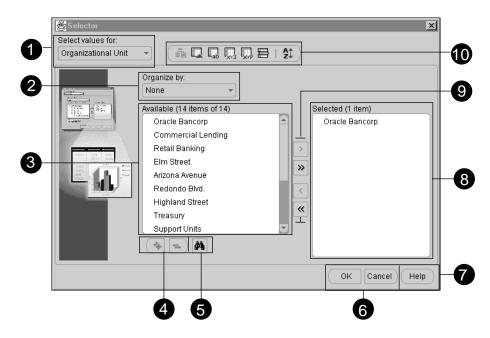
The Selector interface automatically appears when you log in to Oracle Budgeting & Planning.

If you need to re-access the Selector during a session, follow this step:

From the main forecasting window select File -> Selector.

# Components of the Selector Interface

This section describes the components of the Selector interface.



1	Select Values For:	Lists dimensions available for selection, including any user-defined dimensions.
2	Organize By:	Provides the option to show dimension values in the Available box by hierarchical structure.
3	Available box	Shows the dimension values available for selection.
4	Expand All/Contract All arrows	Expand and collapse dimension values in the Available box (operational when you choose the hierarchy option in the Organize By: list box).
5	Find Value feature	Provides a search engine to find entries in the Available box.
6	Operational buttons	Enables you to either finalize your selections or cancel the selection process.
		Choose OK to finalize your selections and pass values to the main forecasting window.
		Choose cancel to exit the Selector without retaining any of your selections.

7	Help	Accesses on-line help.
8	Selected box	Shows the dimension values selected.
9	Selection arrows	Moves selected values between the Available box and the Selected box.
10	Selector toolbar	Provides options for detailed and analytical data selection.

The following sections describe the use of each component.

### Select Values For: List Box

Use the Select Values For: list box to choose the dimension from which you select values for the main forecasting window. The following dimensions appear in this list:

- Organizational Unit
- Time
- **Chart of Accounts**
- Strategy
- **Forecast**
- Currency
- N-dimension (custom, user-defined dimension)

## Selecting the Dimensions from the Select Values For: List Box

To select dimensions follow these steps:

- Click the arrow at the right of the dimension name to open the list box.
- Click the desired dimension.

The values in the Available box change as you select different dimensions. The Available box shows only the dimension values associated with the chosen dimension.

The Financial Element Dimension is Not Listed The Financial Element dimension does not appear in the list because Financial Element values are tied to the Chart of Accounts values you select. You cannot select Financial Element values independently.

The Super Administrator defines the associations between Chart of Account products and Financial Elements at implementation.

## Organize By: List Box

Open the Organize By: list box to choose the option that displays dimension values hierarchically in the Available box. You cannot use this option with dimensions that have no hierarchical structure.

The Super Administrator creates the hierarchical options that you see in this list.

### **Available Box and Selected Box**

The values that appear in the main forecasting window come from the Selected box. You select these values by choosing them in the Available box and then moving them to the Selected box. When you close the Selector the values chosen for each dimensions are passed to the main forecasting window.

### Displaying Dimension Values in the Available Box

Select values for the Available box by first choosing a dimension from the Select Values For: list box. Both node and leaf-level values appear in the Available box. The selected dimension governs the displayed values in the Available box. As you select different dimensions the values in the Available box change.

The number of node and leaf values available for selection appear at the top of the box.

## **Displaying the Selected Values**

The Selected box holds the chosen dimension values.

Default Dimension Values In the Selected Box The application automatically puts the first value of each dimension in the Selected box. This can be either a node or a leaf value.

Hierarchical Structures Not Displayed The Selected box does not show dimension values hierarchically.

## Selection Arrows for Moving Values Between the Available and Selected Boxes

Move values between the Available and Selected boxes using either the Selection arrows or a combination of the Selection arrows and mouse. The method you use depends on the number of values you want to move at a time.

**Note:** When you move values from the Available box to the Selected box those values appear in the Selected box and remain in the Available box.

When you move values from the Selected box to the Available box those values disappear from the Selected box.

The following sections describe the steps for moving single and multiple values.

### Moving Single Dimension Values

For single values use one of the two methods described in this section.

#### Method 1

To move a single value between boxes using the mouse, follow this step:

Double-click the value. It moves from one box to the other.

#### Method 2

To move a single value between boxes using the mouse and a Select arrow, follow these steps:

- Click the dimension value you want to move.
- Click either the > or < arrow, depending on which way you want to move the value.

## **Moving Multiple Dimension Values**

For multiple dimension values use one of the methods discussed in the following sections. The method you choose depends on whether the values are contiguous or non-contiguous and whether you want to move individually-selected values or all of the values, as a whole.

### **Moving Multiple Contiguous Values**

For multiple, contiguous values use one of the two methods described in this section.

#### Method 1

- 1. Click the first dimension value you want to move, depress the left button on your mouse and drag the cursor to the last value you want to move.
  - All of the selected values become highlighted.
- 2. Click either the > arrow or the < arrow, depending on which way you want to move the values.

### Method 2

- Click the first dimension value you want to move.
- Depress and hold the Shift key.
- **3.** Click the last value you want to move.
  - The first and last values and all values between these two become highlighted.
- 4. Click either the > arrow or the < arrow, depending on which way you want to move the values.

### **Moving Multiple Non-Contiguous Values**

Use this method to move multiple, non-contiguous values between boxes.

- 1. Click the first value you want to move.
- 2. Depress and hold down the Control [Ctrl] key and click additional values with your mouse. As you select these additional values they become highlighted.
- 3. Release the Control key and click either the > arrow or the < arrow, depending on which way you want to move the values.

### **Moving All Values Between Boxes**

To move all dimension values from one box to the other click either the >> arrow (Add All) or << arrow (Remove All), depending on which way you want to move the values.

## **Expanding and Contracting Hierarchies**

Use the + and - buttons to expand or contract the hierarchical structure of dimension values in the Available box. These buttons become functional when the dimension has a hierarchical structure and you select the hierarchical option from the Organize By: list box.

These buttons expand and contract the entire structure. To expand or contract individual node segments independent of the structure as a whole click the + or buttons appearing beside the node values themselves, in the Available box.

The application does not display dimension values hierarchically in the Selected box.

## Find Value (Search)

Use this feature to search for alphabetical and numerical values in the Available box.

**Example** You want to find an organizational unit that contains the word "bank" in the title but cannot remember the complete unit title. By typing "bank" in the entry field the search engine finds all text values that include the word the desired word. Results could include organizational units such as Bank Center, Bank Plaza or Retail Banking. The engine searches for every instance of the dimension value that you entered, including occurrences where the text appears within a word, such as "banking."

The Find Value feature works the same way for numbers.

### Launching a Search

To invoke a search, follow these steps:

- Click the Find Value icon. The Find dialog box appears.
- Type your search target in the entry field.
  - You can type either text, numbers or a combination, depending on how your organization has named the dimension values you want to find.
- Click either Find Next or Find Previous to start the search. If successful the match appears, highlighted, in the Available box.
  - If the search engine cannot find a match a message appears in the lower left corner of the dialog box.
- Click either Find Next or Find Previous buttons to locate the next match. If only one value matches your search that value remains in the Available box.

### **Retrieving Previous Searches**

The interface stores past search entries during a session. Retrieve these by clicking the arrow at the right of the entry field and then clicking the search entry that you want to use again.

## **Operational Buttons and Help**

Use the operational buttons to either complete or cancel your selections. Click OK to pass your selected values to the main forecasting window. Click Cancel to exit the Selector without passing any values to the window.

Click Help to invoke the Help menu for the Selector.

### Selector Tool Bar

The Selector tool bar provides additional techniques and methodologies for selecting data. These tools enable you to perform complex, analytical database queries.

For an explanation on how to use these tools, see "Using the Selector Tools" in this chapter.

# Passing Dimension Values to the Main Forecasting Window

After selecting values for each of the dimensions in the Select Values For: list box pass these values to the main forecasting window by following this step:

Click OK in the Selector interface.

The Selector closes and the main forecasting window appears, displaying the selected dimension values.

# Using the Selector Tools

The tools on the Selector tool bar provide complex, analytical approaches to selecting dimension values.

### **Tool Options**

The Selector tools include those in the following list. They appear from left to right on the tool bar.

In the interface the names also appear when you point your cursor at an icon.

- Choose Values by Family
- Choose Values by Attribute
- **Choose Matching Values**
- **Choose Values Meeting Value Conditions**
- **Choose Values Meeting Measure Conditions**
- Choose Top/Bottom Values
- Sort

Unavailable Tools You cannot use grayed-out tools. A grayed-out tool indicates one of the following two conditions:

- The tool is not applicable to the selected dimension
- The tool requires a hierarchical display in the Available box

### Common Functions in the Tool Interfaces

This section describes the common functionality found in the dialog box of each tool. This functionality includes the:

- Value selection list box
- Operational buttons

### Value Selection List Box

Use the choices in this list box to perform the selection functions described in the following table.

Selection	Description
Select	Use Select when you want to select new values for a dimension.
	This choice replaces any values already in the Selected box.
	If no values have been selected for a dimension Select appears by default.
Add	Use Add when you want to add more values to a group of values already in the Selected box.
	Add appears by default because the application places the first dimension value for each dimension in the Selected box when you open the Selector.

Selection	Description
Keep	Use Keep to select the values you want to stay in the Selected box.
	When you invoke this option all values not meeting the selection criteria are removed from the Selected box.
	Suggested use: When you want to keep a small number of dimension values.
Remove	Use Remove to select the values you want to remove from the Selected box.
	When you invoke this option all values meeting the selection criteria are removed from the Selected box. The values not meeting the criteria remain.
	Suggested use: When you want to remove a small number of dimension values.

### **Operational Buttons**

This section describes the operational buttons at the bottom of each dialog box.

Button	Description
OK	Puts the chosen dimension values in the Selected box.
Cancel	Cancels the data selection process without retaining any dimension values, closes the tool interface, and returns you to the main Selector interface.
Preview	Enables you to preview the selected dimension values before putting them in the Selected box.
Help	Opens on-line help.

## Resizing a Tool Dialog Box

You can resize each of the tool dialog boxes using your mouse. To resize a box, follow these steps:

- Place your cursor over the side you want to resize.
- When it becomes a line with dual arrows depress the left button on your mouse and drag the side to either enlarge or contract the box.
- When you reach the desired size, release the left button. The dialog box retains the new size.

### How to Use the Selector Tools

Use the Selector tools to perform the following three types of activities:

- Selecting data by hierarchical structure, common attributes or matching values
- Selecting data using conditions and measures
- Sorting data in the Selector before closing the interface

Each tool performs one of these activities. The following sections describe what each tool does and illustrates their functionality with examples.

About the Examples The examples used in these sections illustrate the basic functionality of each tool. Because you can use multiple tools to select values for a dimension and you have multiple selection parameters (such as select, add, keep and remove) available, documenting all the possible permutations for each tool is beyond the scope of this guide.

To understand and use the full range of features offered by these tools spend time experimenting with them, using values from your own database so that the results are meaningful for you.

Note, also, that the values used in these examples are not seeded values.

### Selecting Data By Structure, Attributes or Matching Values

The tools described in this section include:

- Choosing values by family
- Choosing values by attribute
- Choosing matching values

Choosing Values by Family This tool enables you to select values according to their relationships with other values in the dimension. Family references define the relationships.

Family Relationship Value	Description
Entire Family Value	This includes all the levels of the hierarchy from the top-most value down.

Family Relationship Value	Description
Parent and Child Values	Each dimension value in a hierarchy (except the top-most value) has a parent value, which is the value directly above it in the structure. The dimension values directly below a parent are called its children.
	The parent value is also known as a node.
Sibling Values	Each parent value can have any number of children. Dimension values that have the same parent are called siblings.
Descendant and Ancestor Values	Each child value can also have children of its own, and so on. Multiple levels of dimension values that roll up to a common value are called descendants of that value, and the value itself is known as the ancestor of the descendent values.
Last Descendant Values	In structures with multiple levels of dimension values these are the lowest dimension values. These are commonly referred to as leaf values.
Self Value	This is the value itself, whether at a node or leaf level.

### Example 1

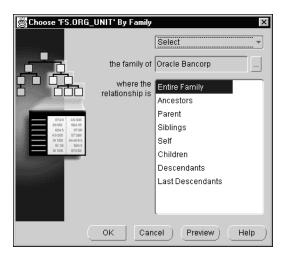
Goal Select all organizational units (leaf values only, not nodes) for Oracle Bancorp.

### **Steps**

- Open the Selector interface if not already open.
- From the Select Values For: list box choose Organizational Unit.
- From the Organize By: list box choose the organizational unit hierarchy option.

This activates the Choose Values by Family icon and shows the dimension values in the Available box in a hierarchical structure.

Click the Choose Values By Family icon. The Choose Organizational Unit By Family dialog box appears.



- 5. Choose Select from the Value Selection list box, replacing the default setting of Add.
- From the relationship box select Last Descendants.
- 7. Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.



You can revise your selections at this point if you want to make any changes before passing values to the Selected box.

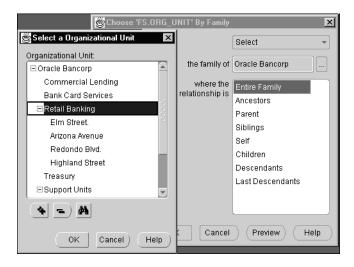
Click OK to accept the dimension values and move them to the Selected box.

#### Example 2

**Goal** Select all branches from the Retail Banking hierarchy.

### **Steps**

- Open the Selector interface if not already open.
- From the Select Values For: list box choose Organizational Unit.
- From the Organize By: list box choose the organizational unit hierarchy option. This activates the Choose Values by Family icon and shows the dimension values in the Available box in a hierarchical structure.
- 4. Click the Choose Values By Family icon. The Choose Organizational Unit By Family dialog box appears.
- 5. Choose Select from the Value Selection list box, replacing the default setting of Add.
- 6. Click the drill button (box with three periods) at the right of The Family Of list box. The Select an Organizational Unit dialog box appears.
- Choose Retail Banking from the list and click OK. Retail Banking replaces Oracle Bancorp in The Family Of list box.



Select Children from the relationship box.

- 9. Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.
  - You can revise your selections at this point if you want to make any changes before passing values to the Selected box.
- 10. Click OK in the Choose Values by Family dialog box to accept the dimension values and move them to the Selected box.

### **Selecting Family Values for Other Dimensions**

Follow the steps previously outlined to select values for other dimensions with hierarchical structures.

# **Choosing Values by Attribute**

This tool enables you to select values based on attributes.

The Super Administrator sets up and pre-defines attributes (relationships) during implementation. You cannot create your own attributes.

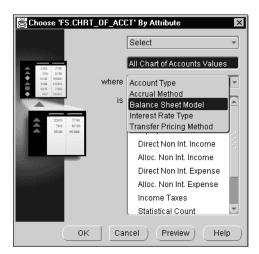
This icon is enabled for all dimensions that have attributes. A hierarchical structure is not necessary to activate the icon.

# Example

**Goal** From the Chart of Accounts dimension select loans that use the Amort.Reprice Balance Sheet Model attribute.

#### **Steps**

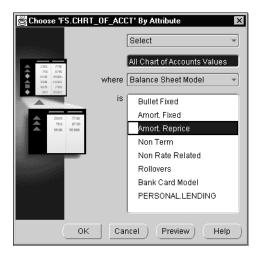
- Open the Selector interface if not already open.
- From the Select Values For: list box choose Chart of Accounts.
- 3. Click the Choose Values By Attribute icon. The Choose Chart of Accounts By Attribute dialog box appears.
- 4. Choose Select from the Value Selection list box, replacing the default setting of Add.



Open the Where list box and choose Balance Sheet Model.

A dynamic association exists between the selection you make in the Where list box and the attributes appearing in the box below this list. The attribute values change as you make different selections from the Where list box.

Choose Amort.Reprice from the attribute values.



7. Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.

- You can revise your selections at this point if you want to make any changes before passing values to the Selected box.
- Click OK in the Choose Values by Attribute dialog box to accept the dimension values and move them to the Selected box.

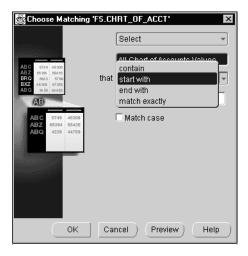
Choosing Matching Values This tool enables you to select matching values using either text or numerical filters.

## Example

**Goal** Select all values, including node and leaf values, from the Chart of Accounts dimension, that begin with the word "commercial."

### **Steps**

- Open the Selector interface if not already open.
- From the Select Values For: list box select Chart of Accounts. 2.
- Click the Choose Matching Values icon. The Choose Matching Chart of Accounts dialog box appears.
- Choose Select from the Value Selection list box, replacing the default setting of Add.
- Open the list box showing the word contain and click start with.



- Type the word **commercial** in the text field.
- Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.
  - You can revise your selections at this point if you want to make any changes before passing values to the Selected box.
- 8. Click OK in the Choose Matching Chart of Accounts dialog box to accept the dimension values and move them to the Selected box.

# Selecting Data Using Conditions and Measures

These three tools enable you to select values that filter the data based on a value or measure criteria.

These three tools include:

- Choosing values meeting value conditions
- Choosing values meeting measure conditions
- Choosing values at the top or bottom of a range

# **Choosing Values Meeting Value Conditions**

The qualifying value conditions for this tool include:

- Greater than
- Greater than or equal to
- Equal to
- Not equal to
- Less than or equal to
- Less than
- Between
- Outside

#### Example

**Goal** Select Chart of Accounts dimension leaf values from the Retail Banking unit where the financial element New Add Spread is greater than or equal to 2% for the month of September, 1998.

This example also uses the Choosing Values by Family tool to arrive at the final result.

> **Note:** Normally the application automatically associates financial element dimension values with the Chart of Accounts values you select. When using this tool, however, you must select a specific financial element value.

### Steps

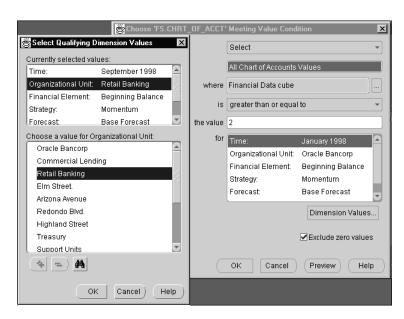
- Open the Selector interface if not already open.
- From the Select Values For: list box choose Chart of Accounts.
- Click the Choose Values Meeting Value Conditions icon. The Choose Chart of Accounts Meeting Value Condition dialog box appears.
- Choose Select from the Value Selection list box, replacing the default setting of Add.
- Leave the Financial Data planning item selection unchanged.
- Open the next list box containing the default value "greater than" and click the selection "greater than or equal to."
- 7. Type **2** in the value text field. The interface recognizes the value as a percent.
- Click the Dimension Values button to select the additional dimension values (Time, Organizational Unit, and Financial Element). The Select Qualifying Dimension Values dialog box appears.

#### Selecting the Time Dimension Value

- From the Currently Selected Values box click the Time.
- From the Choose A Value for Time box, click September 1998.

#### Selecting the Organizational Unit Dimension Value

- From the Currently Selected Values box, click Organizational Unit.
- From the Choose A Value for Organizational Unit box, click Retail Banking.



The dimension you choose from the Currently Selected Values box appears as the title of the box from which you choose your dimension values.

In this example, the title changes from Choose A Value for Time to Choose A Value for Organizational Unit.

### **Selecting the Financial Element Dimension Value**

- From the Currently Selected Values box click Financial Element.
- Click the Find Value icon and type new add spread in the text field of the Find dialog box.
- Click Find Next. The application locates the financial element and returns it to the Choose a Value for Financial Element box.
- Close the Find dialog box, then click OK in the Select Qualifying Dimension Values dialog box.

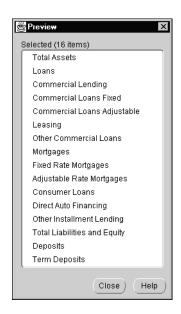
#### Verifying the Strategy, Forecast and Currency Dimension Values

View the dimension values for the Strategy, Forecast, and Currency dimensions to verify that these are the desired values for your task.

If these are the desired values, you do not need to take any action. If not, select the appropriate values following the steps previously outlined for selecting the other dimension values.

#### Previewing the Subset of Data

Preview the subset of data. Note that the results include both node and leaf Chart of Accounts values.



Close the Preview box when finished.

In this example you want to target Chart of Accounts leaf values. To filter out node values, complete the steps in the section "Filtering Out Node Values from the Chart of Accounts Data Set" which follows.

#### Filtering Out Node Values from the Chart of Accounts Data Set

- 1. Click OK to close the Choose Chart of Accounts Meeting Value Condition dialog box. The results from the Preview box appear in the Selected box of the Selector.
- **2.** Open the Organize By: list box and choose the hierarchy option for Chart of Accounts.
- 3. Click the Choose Values By Family icon to open the Choose Chart of Accounts by Family dialog box.
- **4.** Choose Keep from the Value Selection list box.

- Verify that the value in the family list box is the top-most value of the hierarchical structure you are working with. If not, open the list box and select the appropriate value.
- From the relationship box click Last Descendants.
- Click Preview to open the Preview box and view your new subset of Chart of Accounts values.



These are the target Chart of Accounts leaf values for this example.

Close the Preview box when finished.

#### Passing Values to the Selected Box

Click OK in the Choose Values by Family dialog box to accept the Chart of Accounts dimension values and move them to the Selected box. These are the Chart of Accounts values that appear in the main forecasting window.

#### Other Value Options Using this Tool

You can also use this tool to select values within a range, such as New Add Spreads between 1% and 2%. For this selection, open the list box defining the value qualifier and replace the default value of "greater than" with "between." The dialog box automatically adjusts, displaying two text fields. These fields enable you to set the top and bottom range values.

#### **Choosing Values Meeting Measure Conditions**

Use this tool to compare a dimension value present in two variables of similar structure and data.

The measure conditions for this tool include a combination of relative measures and a numerical qualifier.

The relative measures include:

- Less than
- Greater than
- Within
- Not within

Users define the numerical measure using values such as 1, 2, or 3, (with the option of defining the measure as a percent value) and the following two additional measure conditions:

- Plus
- Minus

#### Possible Scenario

Your organization completes budget forecasts for the upcoming year and wants to be able to compare budget projections against actual performance as the year progresses.

To do this your organization creates a new variable, called Budget, which mirrors the structure of the Financial Data planning item. Upon completion of the forecasting exercise the Super Administrator copies the budget projections from the Financial Data planning item to the Budget variable.

After actuals are loaded into the Financial Data planning item, use the tool to select values for a dimension by comparing the actual data in the Financial Data planning item against budget data in the Budget variable.

For example, you can find all the organizational units from the Financial Data planning item where the average balance for business lines of credit exceeded budget projections stored in the Budget variable by 10% for the first quarter of the year. Use the tool to select the relevant dimension values for each of the other dimensions and the criteria. For Time, choose the appropriate quarter, for Financial Element, choose Average Balance, for Chart of Accounts, choose business line of credit. Continue selecting one dimension value for each of the remaining dimensions.

#### An Example is Not Provided for this Tool

Providing an example for this tool requires two variables of similar structure. The application seeds only one variable that can be used to illustrate how this tool works. This variable is the Financial Data planning item. Therefore a specific example using the tool itself has not been provided.

### Choosing Values at the Top or Bottom of a Range

This tool enables you to select data at either the top or bottom of a range, using a numerical qualifier.

#### Example

**Goal** Select the three organizational units (leaf values) with the largest ending balances for mortgage loans for the month of June, 1999. Then use these units as the basis for comparing forecasted ending balances for the same organizational units from January through December, 2000.

This example uses two Selector tools, Choose Values by Family and Choose Values at the Top or Bottom of a Range. The order of use is reversed from previous examples to illustrate how you can use different approaches in selecting a data set.

**Steps** The steps for this example are divided into the following four operational processes:

- Selecting the organizational unit leaf values
- Selecting the three organizational units meeting the value criteria
- Selecting the remaining dimension values for the main forecasting window
- Modifying the data display in the main forecasting window to compare the ending balances for June against forecasted balances

#### Selecting the Organizational Unit Leaf Values

- Open the Selector interface if not already open.
- From the Select Values For: list box choose Organizational Unit (default value).
- From the Organized By: list box choose the hierarchy option.
- Click the Add All arrow to move all organizational units to the Selected box.
- 5. Click the Choose Values by Family icon to open the Choose Organizational Unit by Family dialog box.
- **6.** Choose Keep from the Value Selection list box, replacing the default setting of Add.
- 7. Verify that the value in the family list box is the top-most value of the hierarchical structure you are working with. If not, open the list box and select the appropriate value.
- **8.** Choose Last Descendants from the relation box.

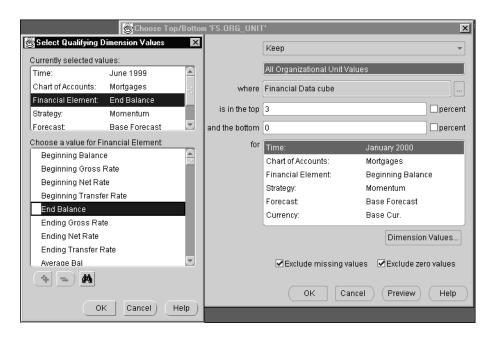
- Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.
  - You can revise your selections at this point if you want to make any changes before passing values to the Selected box.
- 10. Click OK in the Choose Values By Family dialog box to accept the Organizational Unit dimension values and move them to the Selected box.

#### Selecting the Three Organizational Units Meeting the Value Criteria

- Click the Choose Top/Bottom Values icon to open the Choose Top/Bottom Organizational Unit dialog box.
- Choose Keep from the Value Selection list box, replacing the default setting of Add.
- Leave the Financial Data planning item selection unchanged
- In the field for the top value type 3. Leave the percent box unchecked.
- Click the Dimension Values button to select the additional dimension values from the Select Qualifying Dimension Values dialog box. These values further define the selection criteria for the Chart of Account values.

The following table shows the dimensions and dimension values selected for this example:

Dimension	Dimension Values
Time	June, 1999
Chart of Accounts	Mortgages
Financial Elements	End Balance
Strategy, Forecast, and Currency	Default values (unless you want to select other values for these dimensions)



The interface of the Selector would appear as follows:

- 6. Click OK in the Select Qualifying Dimension Values box to close it. The selected dimension values appear in the interface of the tool.
- 7. Click Preview to open the Preview box and view your selected dimension values. Close the Preview box when finished.
  - You can revise your selections at this point if you want to make any changes before passing values to the Selected box.
- 8. Click OK in the Choose Top/Bottom Organizational Unit dialog box to accept the three dimension values and move them to the Selected box.

#### Selecting the Remaining Dimension Values for the Main Forecasting Window

1. From the Selector interface choose the following dimension values:

Dimension	Dimension Values
Time	June, 1999
	January, 2000 through December, 2000
Chart of Accounts	Mortgages
Strategy, Forecast, and Currency	Default values (unless you want to select other values for these dimensions)

Refer to "Selection Arrows for Moving Values Between the Available and Selected Boxes" in this chapter for information on moving values between these two boxes.

2. Click OK to close the Selector and move the data set to the main forecasting window.

#### Modifying the Data Display in the Main Forecasting Window

When you close the Selector the following data set passes to the main forecasting window:

Dimension	Dimension Values
Organizational Unit	The three units selected in the previous steps
Time	June, 1999 (in the first column)
	January, 2000 through December, 2000 (in succeeding columns)
Chart of Accounts	Mortgages
Financial Elements	End Balance
Strategy, Forecast, and Currency	Default values

The application displays the data in the main forecasting window in the default setting, meaning that financial elements appear as rows and units of time appear as columns.

For this example, exchange the Financial Element tile with the Organizational Unit tile to display the three organizational units as rows and select End Balance as the active financial element.

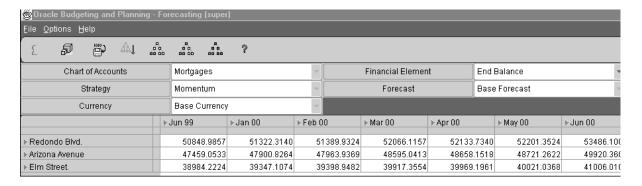
To finalize the data display in the main forecasting window, follow these steps:

Place your cursor on the Organizational Unit tile and, using the left button on your mouse, drag it to the Financial Element tile in the lower left corner of the window.

When the Organizational Unit tile covers the Financial Element tile release the button. The financial elements are replaced by the three organizational units.

Open the list box for the Financial Element dimension and choose End Balance.

The main forecasting window now displays the ending mortgage balances for the three units for June, 1999 in the first column and forecasted ending balances for January through December, 2000 in the succeeding columns.



#### Other Selection Options Using this Tool

You can select two ranges of values if you want, a top range and a bottom range, however, if you want to select one and exclude the other be sure that a zero appears in the field for the excluded range.

If you leave a field blank an error message appears reminding you to enter a value. This includes entering a zero.

# Sorting Data in the Selected Box

The Sort icon enables you to sort data in the Selected box.

This icon becomes active when you move values to the Selected box.

Two examples are provided for this tool. The first example sorts Chart of Accounts values. The second example sorts Time values.

### Example 1

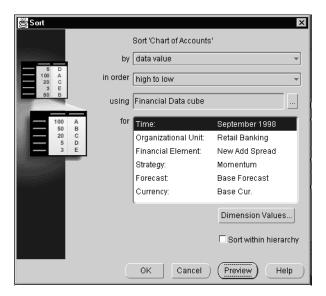
**Goal** Sort by value the Chart of Accounts values selected in the example for the Choosing Values Meeting Value Conditions tool.

**Steps** The steps for this example begin after the selections for the Chart of Accounts leaf values selected for the previous example have been chosen.



- From the Selector interface click the Sort icon. The Sort dialog box appears. 1.
- In the "by" list box leave the selection "data value" unchanged (default value). Additional options for this list box include Name, Hierarchy, and Level.

3. From the "in order" list box leave the selection "high to low" unchanged. The alternate option is "low to high."



4. Click Preview to view the Chart of Accounts values resorted by New Add Spread values, from high to low. Close the Preview box when finished.



5. Click OK in the Sort dialog box to accept the reordered Chart of Accounts values and move them to the Selected box.

#### Example 2

**Goal** Sort previously selected monthly Time values in chronological order.

For this example, assume that a business unit manager selects the last six months of the forecasting budget year and passes these values to the main forecasting window, along with other dimension values. After making this selection it becomes necessary to include the first six months of the year as well.

The application's design does not automatically rearrange Time values in chronological order. In this example the first six months of the year appear after the last six months when the second selection of time values is passed to the main forecasting window.

The steps in the following section explain how to use the Sort tool to display these Time values chronologically.

**Steps** The steps for this example begin after the selections for the Time values for both the first and second half of the year have been selected and are not in chronological order.

- Open the Selector interface if not already open.
- From the Select Values For: list box choose Time. 2.
- From the Organized By: list box choose the hierarchy option. 3.
- Click the Sort icon to open the Sort dialog box.
- Open the "by" list box (default value is "data value") and select "hierarchy." 5.
- From the "in order" list box make the appropriate selection from the following two options:
  - Top to bottom
  - Bottom to top

**Note:** The Sort tool does not provide a chronological option for ordering Time values. It uses the ordering in the hierarchical display for the sorting criteria. Therefore, by choosing "top to bottom" you sort the Time values from the top of the hierarchical structure (earliest month) to the bottom (last month).

- 7. Click Preview to open the Preview box and view the reordered values. Close the Preview box when finished.
- **8.** Click OK in the Sort dialog box to accept the new ordering of the Time values and pass this order to the main forecasting window.

# Selecting Leaf Values for the Maturity Mix Assumption Interface

If you use any of these tools to select data for the Maturity Mix Assumption interface you must include leaf values for all dimensions.

See the section entitled "Importance of Selecting Leaf Values" in Chapter 14, "Using the Maturity Mix End-User Interface" for information on the reason for selecting leaf values.

# **Using Input and Calculation Tools**

Budgeting & Planning provides a set of tools to assist users in creating initial forecast or budget projections, adjusting existing projection values, and adjusting source values while copying data from one location in the Financial Plans planning item to another.

These tools enable you to generate projections for all data types including balance sheet and non-interest income and expense line items, as well as triggering cash flow processes and solve calculations derived from the generated values.

Business unit managers, budget administrators, sub-administrators and other individuals responsible for creating budget plans will find these tools useful to generate preliminary or revised results in an automated fashion.

These tools can be used for both individual business unit and account combinations as well as combinations crossing multiple business units and accounts. After your projections have been entered you can process them using cash flow and aggregation (solve) calculations, either as individual values are generated or after creating a series of projections using the tools.

Only from the Financial Plans planning item can be used with the Tools interfaces. Values from planning items you create or other seeded Budgeting & Planning planning items cannot be accessed in this release.

This chapter explains how to use the input and calculation tools to accomplish these tasks, presenting the following topics:

- Features of the Input and Calculation Tools
- **Inputting and Calculating Values**
- Input and Calculation Methods Detailed

# Features of the Input and Calculation Tools

Features of the Input and Calculation Tools functionality include the following:

- Two new interfaces provide the ability to define the generation of input values to be used in subsequent calculations defined for the Financial Plans planning item. The generated values are initially written to a temporary storage area, and then are deleted as they are run through the calculation process.
- The Target Input Tools Interface is used to generate target input values using typical formulas available to support generating projections over time or adjusting existing values up or down.
- The Source to Target Input Tools Interface is used to generate input values by copying existing values from another location, with an ability to adjust those 'source values' up or down during the copy process
  - Source values can come from any location in the Financial Plans planning item and can be written to any other location in the planning item. Source values can be either historical or forecasted.
- Inputs are generated for any future time period or periods for financial elements that are designated as read/write in the interface. The target financial element is specified at the time the process is launched. Users select a financial element from a list of available financial elements. These financial elements are based on the balance sheet model assigned to the individual accounts selected.
- Values can be generated for individual leaf values, individual node values, or all leaf values currently selected for target or destination values. Projected node values are 'pushed down' to leaf level on a prorated or spread even basis when calculations are processed.
- Using the Tools interfaces, you also have the option of invoking a calculation process after completing each data input task or completing multiple tasks and invoking the calculation process once, which generates results for all data in a single operation.
- You can choose from three solve calculation options to roll up the results: No Solve, Partial Solve, and Full Solve. These options roll up results exactly the same way as the three solve options in the main forecasting window.
- Input and calculation results are only submitted to the shared database after closing the tools dialogs and either clicking the Save icon or selecting File -> Save from the File menu option.

# **Tools Interfaces**

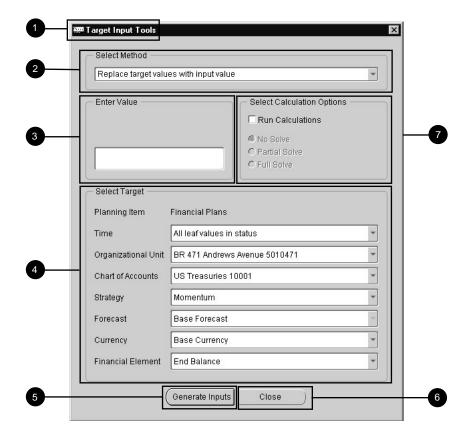
The following two interfaces support generating inputs and launching calculations:

- **Target Input Tools**
- **Source to Target Input Tools**

Note that for both interfaces, neither historical values nor future values (cells) designated as read-only can be changed.

# **Target Input Tools Interface**

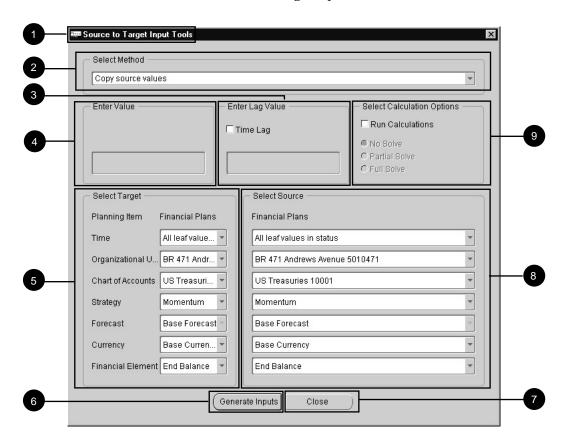
This section describes the Target Input Tools interface.



1	Target Input Tools	Interface title.
2	Select Method	Lists input generation methods.
3	Enter Value	Defines the modifying value.
4	Select Target	List boxes holding currently selected dimension values; used to select the combinations of dimension values you want to change.
5	Generate Inputs button	Initiates the input generation or input generation and calculation process.
6	Close button	Closes the interface.
7	Select Calculation Options	Checking the Run Calculations box enables the listed solve options.
		The solve options allow you to choose whether or not to aggregate values and, if so, to what extent. These selections and the selections in the Options menu and Tool bar of the main forecasting window are the same.

# **Source to Target Input Tools Interface**

This section describes the Source to Target Input Tools interface.



1	Source to Target Input Tools	Interface title.
2	Select Method	Lists copy methods.
3	Enter Lag Value	Defines a range of months for source Time values lagging back from the target Time value.
4	Enter Value	Defines the modifying value.

5	Select Target	List boxes holding currently selected dimension values; used to select the combinations of dimension values you want to change.
6	Generate Inputs button	Initiates the copy or copy and calculate process.
7	Close button	Closes the interface.
8	Select Source	List boxes holding currently selected dimension values; used to select the combinations of source dimension values that you want to copy from.
		If you use the Time Lag feature, source Time values do not need to be currently selected with the Selector.
9	Select Calculation Options	Checking the Run Calculations box enables the listed solve options.
		The solve options allow you to choose whether or not to aggregate values and, if so, to what extent. These selections and the selections in the Options menu and Tool bar of the main forecasting window are the same.

# **Opening the Interfaces**

Open the interfaces using either of these two methods.

### Menu Bar

From the Menu bar:

- 1. From the main forecasting window select Menu -> Tools.
- Select the appropriate input and calculation tool.

# **Tool Bar**

From the Tool bar click the icon for the interface you want.

# Inputting and Calculating Values

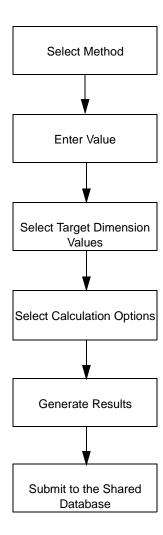
This section describes the sequential procedures you follow to generate input values and calculate results for each Tools interface.

Note the following:

- You can generate target values only for currently selected values in the Tools interfaces
- Once you have opened a Tools interface you cannot reopen the Selector to add new values. You must close the Tools interface and then open the Selector. You may be prompted to save your changes and calculate.
- You can perform multiple tasks within each of the Tools interfaces. It is not necessary to close an interface in between tasks.

# **Process for the Target Input Interface**

The following diagram shows the work flow for this interface.



**Select Method** Choose the input or calculation method from the following list:

- Replace target values with input value
- Keep current values
- Adjust current values by a percentage
- Adjust current values by an amount
- Grow by a percent
- Grow by an amount
- Percentage growth from prior year
- Target an ending value
- Annualize year-to-date amount

Refer to "Input and Calculation Methods Detailed" in this chapter for explanations and examples of each method.

Enter Value This option is dynamic. Selecting a method such as Adjust Current Values by a Percentage, which requires an input value, also enables the Enter Value field.

Enter percent values as whole numbers. For 25% type 25, not .25. The application converts the whole number to a percent.

Select Target Dimension Values Use the dimension list boxes to select values you want to change when you click Generate Inputs.

The selection All Leaf Values in Status includes all leaf values, for the designated dimension, that are currently selected. Node values remain unchanged when you generate inputs using this selection without running the Partial or Full Solve.

You must run calculations with Partial Solve or Full Solve to roll up the results of the leaf-level calculations to the appropriate node levels when using the All Leaf Values in Status selection.

In performing an operation, you must choose either a single leaf, a single node, or all leaf values currently selected.

If you want to use the interface to change values for leaves other than those currently selected, you need to first close the Tools interface then reopen the Selector and make your new choices. You may be prompted to save your changes and calculate when you open the Selector.

Select Calculation Options Check the Run Calculations box to enable the three options. Use these options to process calculations based on generated inputs and (optionally) to run solve routines. Select one of the three, based on the following descriptions:

Option	Result
No Solve	Runs calculations without aggregating any node values.
Partial Solve	Runs calculations and aggregates values for nodes impacted by changes in leaf values.
Full Solve	Runs calculations and aggregates values for all node values whether or not they are impacted by the changes.

To launch the calculation routine, check the option you want to invoke and click Generate Inputs.

### **Timing Your Cash Flow Processes**

You have two basic options relative to processing calculations when you generate inputs.

#### You can either:

- Generate inputs from the interface and write them to temporary storage for processing later or;
- Invoke one of the calculation options at the time that you generate inputs.

To choose the first option click Generate Inputs while leaving the Run Calculations box unchecked.

Note that if you select this option you cannot submit the generated values to the shared database until you run a calculation process. After you run the calculation process the application deletes these values from temporary storage and writes the results to the Financial Plans planning item.

#### **Constraints**

The application requires you to select and run one of the calculation options before:

- Submitting your data to the shared database
- Re-opening the Selector

- Choosing another planning item
- Exiting the application

If you try to perform any of these operations without first running a calculation process the Perform Calculation dialog box prompts you to either run a calculation process, undo your entries since your last calculation, or cancel your intended operation. See "Perform Calculation Prompt" in this chapter for additional information.

# Running Calculations from the Tools Interface and the Main Forecasting Window

You can select the same calculation processes from either the Menu bar or Tool bar of the main forecasting window. This can be helpful if you want to complete some tasks using a Tools interface and then use the main forecasting window for other tasks before processing calculations. This enables you to run your calculations one time, for all entries.

The calculation processes are accessible from the main forecasting window only if you first close the Tools interface.

Whether processing a calculation option from the Tools interface or from the main forecasting window, all values temporarily stored are processed.

Generate Inputs Click the Generate Inputs button to generate the target value inputs and run the calculation option selected in the Select Calculation Options box.

**Note:** Target inputs can only be generated for dimension values designated read/write. Target inputs cannot be generated for future values designated read-only or for time periods containing historical data.

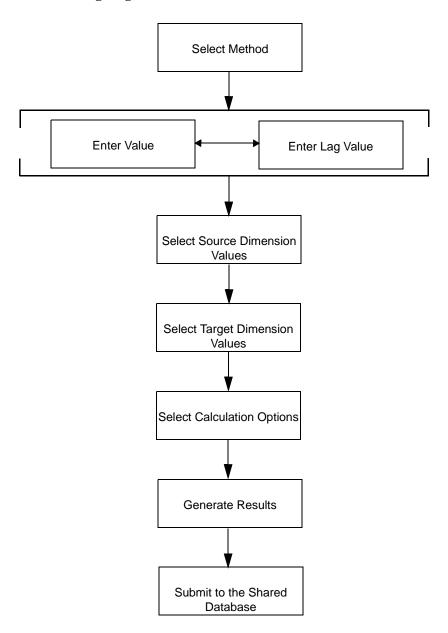
Submit to the Shared Database Submit your input and calculation results to the shared database by:

- 1. Generating your inputs
- Running the selected calculation option 2.
- Closing the Tools interface; and then
- Saving your results.

You must close the Tools interface before you can submit your inputs and calculations.

# **Process for the Source to Target Input Interface**

The following diagram shows the work flow for this interface:



**Select Method** Choose the input or calculation method from the following list:

- Copy source values
- Adjust source values by an amount
- Adjust source values by a percentage

Refer to "Input and Calculation Methods Detailed" in this chapter for explanations and examples of each method.

Enter Value This option is dynamic. Selecting a method such as Adjust Current Values by a Percentage, which requires an input value, also enables the Enter Value field.

Enter percent values as whole numbers. For 25% type 25, not .25. The application converts the whole number to a percent.

**Enter Lag Value** Enter an integer to define the range of months to lag from the target time value to select the source time value.

Using the Time Lag feature disables the Time dimension in the Select Source Dimension Values column.

> **Note:** Time periods selected as the source or lag values do not need to be currently selected.

See "Using the Time Lag Feature" in this section for more information.

Select Source and Target Dimension Values Use the dimension list boxes to select source and target dimension values.

The selection All Leaf Values in Status includes all leaf values, for the designated dimension, that are currently selected. Source values remain unchanged when you generate inputs with this tool.

In performing an operation, you must choose either a single leaf, a single node, or all leaf values currently selected.

If you want to use the interface to change values for leaves other than those currently selected, you need to first close the Tools interface then reopen the Selector and make your new choices. You may be prompted to save your changes and calculate when you open the Selector.

Select Calculation Options Check the Run Calculations box to enable the three options. Use these options to process calculations based on generated inputs and (optionally) to run solve routines. Select one of the three, based on the following descriptions:

Option	Result
No Solve	Runs calculations without aggregating any node values.
Partial Solve	Runs calculations and aggregates values for nodes impacted by changes in leaf values.
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To launch the calculation routine, check the option you want to invoke and click Generate Inputs.

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You have two basic options relative to processing calculations when you generate inputs.

#### You can either:

- Generate inputs from the interface and write them to temporary storage for processing later or;
- Invoke one of the calculation options at the time that you generate inputs.

To choose the first option click Generate Inputs while leaving the Run Calculations box unchecked.

Note that if you select this option you cannot submit the generated values to the shared database until you run a calculation process. After you run the calculation process the application deletes these values from temporary storage and writes the results to the Financial Plans planning item.

#### **Constraints**

The application requires you to select and run one of the calculation options before:

- Submitting your data to the shared database
- Re-opening the Selector

- Choosing another planning item
- Exiting the application

If you try to perform any of these operations without first running a calculation process the Perform Calculation dialog box prompts you to either run a calculation process, undo your entries since your last calculation, or cancel your intended operation. See "Perform Calculation Prompt" in this chapter for additional information.

# Running Calculations from the Tools Interface and the Main Forecasting Window

You can select the same calculation processes from either the Menu bar or Tool bar of the main forecasting window. This can be helpful if you want to complete some tasks using a Tools interface and then use the main forecasting window for other tasks before processing calculations. This enables you to run your calculations one time, for all entries.

The calculation processes are accessible from the main forecasting window only if you first close the Tools interface.

Whether processing a calculation option from the Tools interface or from the main forecasting window, all values temporarily stored are processed.

Generate Inputs Click the Generate Inputs button to generate the target value inputs and run the calculation option selected in the Select Calculation Options box.

**Note:** Target inputs can only be generated for dimension values designated read/write. Target inputs cannot be generated for future values designated read-only or for time periods containing historical data.

Submit to the Shared Database Submit your input and calculation results to the shared database by:

- 1. Generating your inputs
- Running the selected calculation option 2.
- Closing the Tools interface; and then
- Saving your results.

You must close the Tools interface before you can submit your inputs and calculations.

# Using the Time Lag Feature

This feature enables you to define your source data values (s) as a lagged or prior time relationship to the target time period.

The following characteristics define this feature:

- Define the lag value using an integer rather than a date. The value for each target monthly time period is the value copied or calculated from the earlier time period which you specify using the monthly lag value.
- The target or destination Time dimension value is chosen from values currently selected. This can include All Leaf Values in Status.
- Source Time dimension values do not need to be currently selected.
- Source values can be copied only to target destinations that are designated as read/write.

This is an efficient way to use existing data from multiple combinations of dimension values to create budget inputs. The feature can be used with any methodology included in the Source to Target Input Tools interface.

**Example** The following scenario illustrates the use of this feature.

Scenario Your organization wants to re-forecast its budget for the last six months of the year using values from the first six months as the starting point, then increasing those values by 5%.

> The Time dimension values chosen through the Selector are July through December. This represents the target destination.

The integer entered in the time lag feature field is 6. This instructs the application to count back 6 months from the earliest month currently selected, which, for this example, is July.

To simplify the illustration only one row is used in the following tables. This represents the intersection of one chart of account and one organizational unit.

The intent of this feature, however, is to perform calculations (or copy data) across multiple combinations of chart of accounts, organizational units, and other dimension values in a single operation.

The following table shows the forecast values as they might currently exist. The shaded months are the target (forecast) months. These are the months to be adjusted.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Current Actual and Forecast Values	1000	2000	3000	2500	0	1150	1275	500	2600	2375	3380	4200

The first six months are the source values. These values are adjusted by 5% to arrive at the new values for the second six months.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Current Actual and Forecast Values	1000	2000	3000	2500	0	1150	1275	500	2600	2375	3380	4200
Calculations	(1000 * 5%) +1000 =1050	(2000 * 5%) +2000 =2100	(3000 * 5%) +3000 =3150	(2500 * 5%) +2500 =2625	(0 * 5%) +0 =0	(1150 * 5%) +1150 =1207	No calculations are performed again source values for these months					

The new forecast values are written to the target destination, overwriting the pervious forecast values.

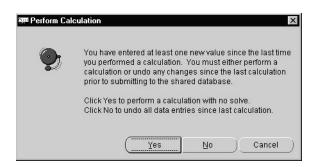
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Old Values	1000	2000	3000	2500	0	1150	1275	500	2600	2375	3380	4200
New Forecast Values (shaded)	1000	2000	3000	2500	0	1150	1050	2100	3150	2625	0	1207

## **Perform Calculation Prompt**

You cannot perform the following tasks without first running a calculation process:

- Submitting your data to the shared database
- Re-opening the Selector
- Choosing another planning item
- Exiting the application

If you try to perform any of these tasks the Perform Calculation dialog box prompts you to either run a calculation, undo your entries, or cancel the operation.



If you click	the application				
Yes	Runs calculations using the No Solve calculation option.				
No	Reverses your data entries and any target inputs created using the Generate Inputs function.				
	The extent of the reversal depends on your previous task:				
	<ul> <li>If you entered data or generated target inputs using the Generate Inputs function without selecting and running a calculation option, then the application reverses all entries from the time you began your session.</li> </ul>				
	If you entered data or generated target inputs, then ran a calculation option the application reverses your data entries and target inputs from that point forward.				
Cancel	Returns you to the main forecasting window and also retains your entries and results from the Generate Inputs function.				

If you try to exit the application without first running one of the three calculation options the Exit Application dialog box follows your selection in the Perform Calculation dialog box. This second dialog box asks you to confirm your decision to exit the application. It also provides an important reminder to close your browser after exiting.



Click Yes to exit or No to return to the main forecasting window.

## Input and Calculation Methods Detailed

This section provides detailed descriptions of each predefined input and calculation method. These methods are categorized according to the Tools interface in which they appear and then are listed alphabetically.

## **Target Input Tools Interface**

This section lists the input and calculation methods for this interface in alphabetical order.

## **Adjust Current Values By a Percent**

**Description** Increase or decrease current values on a percentage basis by the value you input in the Enter Value field.

> The application converts your input value to a percent. A positive value increases the new target value relative to the existing value. A negative value achieves the opposite result.

Example 1 Add to or increase the values for March, April, and May by 10%.

	March	April	May
Old Values	100	110	120
New Values	110	121	132

March 110 = (100 \* 1.1)April 121 = (110 \* 1.1)May 132 = (120 \* 1.1)

If the existing value is zero, zero is written to the Express database (0 \* [Input Percentage = 0.

**Formula** [Current Period New] = [Current Period Old] \* (1 + ([Input Amount] / 100))

## **Adjust Current Values By an Amount**

**Description** Increase or decrease existing values by the value you input in the Enter Value field. A positive value increases the new target value relative to the existing value. A negative value achieves the opposite result.

Example 1 Add to or increase the existing values for March, April, and May by 25.

	March	April	May
Old Values	100	110	120
New Values	125	135	145

March 125 = (100 + 25)April 135 = (110 + 25)May 145 = (120 + 25)

Example 2 Add to or increase existing values where some cells are either 0 or NA.

	March	April	May
Old Values	100	0	0 (NA)
New Values	150	50	50

March 150 = (100 + 50)April 50 = (0 + 50)May 50 = (NA + 50)

Cells with 0 or NA as current values are replaced with the input value.

**Formula** [Current Period New] = ([Current Period Old] + [Input Amount])

#### **Annualize Year-to-Date Amount**

**Description** Annualizes year-to-date values for future time periods remaining in the current year, as designated by the Forecast as-of-date.

Example 1 Example 1 illustrates this calculation method for all financial elements except Ending Balance (F100) and Average Balance (F140). In this example actual values are available for four months (January through April) of the current year. You want to input values for the remaining eight forecast months using the year-to-date value as the basis for the calculation.

#### **Actual Values:**

	Jan	Feb	Mar	Apr	YTD
Actual Values	100	125	150	200	575

Monthly Forecasted Values Based on the Actual YTD Values:

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast Values	146.75	146.75	146.75	146.75	146.75	146.75	146.75	146.75

#### **Process:**

The sum of the values for the actual months is 575. The total number of days over this period is 120:

	January	February	March	April	YTD
Values	100	125	150	200	575
Days in Months	31	28	31	30	120

The number of monthly forecast periods is eight.

The calculation to determine the eight forecasted monthly values is:

$$(((575) / (120) * 365) - (575) / 8 = 146.7448$$

with the value 146.7448 written to database and reflected in the interface (146.75 in the table).

#### **Formula**

[Each current year forecast period] = (((Sum of monthly actual period values) / (Total number of days in monthly actual periods) \* Total number of days in year) - Sum of monthly actual period values) / Number of monthly forecast periods

#### Example 2 Example 2 illustrates this calculation method for Ending Balance (F100)

In this example actual ending balances are available for four months (January through April) of the current year. You want to input values for the remaining eight forecast months based on the calculation method used for ending balances.

#### **Actual Values:**

	Jan	Feb	Mar	Apr
Actual Values	100	125	150	200

#### Monthly Forecasted Values Based on the Actual YTD Values:

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast Values	200	200	200	200	200	200	200	200

#### **Process:**

The value used for the forecast period is the last historical value (as-of-date). In this example, the last historical ending balance value is 200, therefore that becomes the ending balance for the forecasted periods.

#### Formula

No formula is associated with annualizing ending balances.

#### Example 3 Example 3 illustrates this calculation method for Average Balance (F140).

In this example, actual average balances are available for four months (January through April) of the current year. You want to input values for the remaining eight forecast months by annualizing the actual values.

#### **Actual Values:**

	Jan	Feb	Mar	Apr
Actual Values	100	125	150	200

## Monthly Forecasted Values:

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast Values	143.75	143.75	143.75	143.75	143.75	143.75	143.75	143.75

#### **Process:**

The value used for the forecast periods is the actual year-to-date, day-weighted average balance. The number of days in each month are multiplied against the average balance for each month. Each calculated value is then summed and divided by the total number of days in the historical period:

	January	February	March	April	Sum
Values	100	125	150	200	
Days in Months	31	28	31	30	120
Calculated Value	3100	3500	4650	6000	17250

The number of monthly forecast periods is eight.

The calculation to determine the eight forecasted monthly values is:

$$((100*31) + (125*28) + (150*31) + (200*30)) / 120 = 143.7500$$

with the value 143.7500 (143.75 in the example) written to each forecast month.

#### Formula

[Each current year forecast period] = (Sum of average balance \* days in month for each actual period) / Sum of days in month for each actual period

## **Grow By a Percent**

**Description** Increments the value from the prior period on a percentage basis by the value you

input in the Enter Value field.

The application converts your input value to a percent. A positive input value

increases balances and a negative input value decreases balances. Example

Increment by 10% for the months of March, April, and May starting with a beginning balance of 1000 in February. For this example input 10 in the Enter Value field. The application automatically converts the integer to percent and applies the appropriate formula to increment the value correctly.

February	March	April	May
1000	1100	1210	1331

March 1100 = (1000 \* 1.1)April 1210 = (1100 \* 1.1)May 1331 = (1210 \* 1.1)

If the value in the starting time period (in this example, February) is zero, this method fails and the following message appear:

This calculation does not return any values

Formula [Current Period] = ([Prior Period] \* (1 + ([Input Amount] / 100)))

## **Grow By an Amount**

**Description** Increments the value from the prior period by the value you input in the Enter Value field. A positive input value increases balances and a negative input value decreases balances.

Increment by 100 for the months of March, April, and May starting with a beginning Example 1 balance of 1000 for February.

February	March	April	May
1000	1100	1200	1300

March 
$$1100 = (1000 + 100)$$
  
April  $1200 = (1100 + 100)$   
May  $1300 = (1200 + 100)$ 

If the value in the starting time period (in this example, February) is zero, the March value becomes the input value (200) and succeeding months are incremental from that starting point.

February	March	April	May
0	200	400	600

March 
$$200 = (0 + 200)$$
  
April  $400 = (200 + 200)$   
May  $600 = (400 + 200)$ 

**Formula** [Current Period] = ([Prior Period] + [Input Amount])

## Keep Current Values

**Description** Use this selection to run the cash flow engine using existing values in the database and

a selected financial element for the calculation driver. You must select a calculation

option when using this method.

Example If you make changes in your rate forecast you can use this option to rerun the cash

flow engine, selecting a financial element such as Ending Balance for the calculation

driver.

Formula Not Applicable

## Percentage Growth from Prior Year

**Description** Calculates target values by multiplying the value in the same month of the prior year by one plus the value you input in the Enter Value field.

Use this method to incorporate seasonal fluctuations into your budget planning.

The application converts your input value to a percent. A positive input value increases balances and a negative input value decreases balances.

You do not need to select prior year values when you use this method. The application automatically selects the appropriate Time dimension values from the preceding year.

Example

Forecast 10% growth from the prior year. For this example input 10 in the Enter Value field. The application automatically converts the integer to a percent and applies the appropriate formula to increment the value correctly.

	March	April	May
Prior Year	1000	2000	1100
Current Year	1100	2200	1210

March 1100 = (1000 \* 1.1)April 2200 = (2000 \* 1.1)May 1100 = (1100 \* 1.1)

Formula [Current Period] = [Same Period Prior Year] \* (1 + ([Input Amount] / 100))

## Replace Target Values with Input Value

**Description** Copies the value you input in the Enter Value field to selected target destinations.

Replace the current values with 1000. In this example input 1000 in the Enter Value **Example** field.

	March	April	May
Old Values	100	110	0
New Values	1000	1000	1000

The input value overwrites current values, including values of zero or NA.

Formula [Current Period] = [Input Value]

## **Target an Ending Value**

**Description** Generates interim values between the start month and end month currently selected as the target time dimension value, with the goal of achieving a target value by the end month. Use the Enter Value field to input the target ending value.

The values increase incrementally between the start and end month.

Note: Calculations begin using the value from the month prior to the first future Time dimension value currently selected.

This method overwrites current data for the time periods selected up to and including the targeted end month.

Example 1 The target is 1500 for May, beginning with 1000 in February. In this example, March April, and May are selected. The formula uses the value in February to calculate the March value.

February	March	April	May
1000	1167	1333	1500

March 
$$1167 = ((1500-1000) / 3) + 1000$$
  
April  $1333 = ((1500-1000) / 3) + 1167$   
May  $1500 = ((1500-1000) / 3) + 1333$ 

Example 2 The target is 3000 for May and the value in February is 0 or NA. February is not selected.

February	March	April	May
0	1000	2000	3000

March 
$$1000 = ((3000-0) / 3) + 0$$
  
April  $2000 = ((3000-0) / 3) + 1000$   
May  $3000 = ((3000-0) / 3) + 2000$ 

**Formula** [Current Period] = (([Value Given] - [Beginning Value]) / [# of Future Time Periods to the Target Time dimension value) + [Prior Period Value]

where:

Beginning Value = The value in the monthly time period immediately preceding the first future monthly time period selected

## Source to Target Input Tools Interface

This section lists the input and calculation methods for this interface in alphabetical order.

## Adjust Source Values By a Percentage

**Description** Increase or decrease the source value on a percentage basis by the value you input in the Enter Value field and write the results to the target destination.

The application converts your input value to a percent.

A positive value increases the target value over the source value. A negative value achieves the opposite result.

Increase the source values by 10% for March, April, and May. Example 1

	March	April	May
Source Values	100	110	120
Target Values	110	121	132

March 
$$110 = (100 * 1.1)$$
  
April  $121 = (110 * 1.1)$   
May  $132 = (120 * 1.1)$ 

**Formula** Target Amount = (Source Amount \* (1 + (Input Amount / 100)))

## **Adjust Source Values By an Amount**

**Description** Increase or decrease the source value by the value you input in the Enter Value field and write the results to the target destination.

> A positive value increases the target value over the source value. A negative value achieves the opposite result.

**Example** Calculate a target value by adding 25 to the source values.

	March	April	May
Source Values	100	110	120
Target Values	125	135	145

March 125 = (100 + 25)April 135 = (110 + 25)May 145 = (120 + 25)

Formula Target Amount = (Source Amount + Input Value)

## **Copy Source Values**

**Description** Copies values from source to target destination without calculations.

The target value = the source value

**Example** Not applicable **Formula** Not applicable

# **Using the Maturity Mix End-User Interface**

This chapter describes how end users such as administrators and business unit managers (end users) use this interface to enter new maturity mix assumptions or revise existing assumptions for new business forecasts.

In order to estimate future cash flows for forecasted new business volumes, Oracle Budgeting & Planning requires that assumptions be provided for maturity mix profiles, pricing spreads, repricing parameters and expected principal prepayment activity. Administrators can define and create these assumptions in Budgeting & Planning, to provide business unit managers with a starting point of reference from which to work. These assumptions are called default maturity mix assumptions. Alternatively, administrators may choose not to define a set of default maturity mix assumptions, opting instead to have business unit managers provide their own assumptions.

The Maturity Mix Assumption interface enables business unit managers to enter their own assumptions if default assumptions have not been defined or override default assumptions with their own assumptions, that more accurately reflect the managers business reality.

The values input in this interface are saved to the Mix Override planning item in the database.

This chapter presents the following topics:

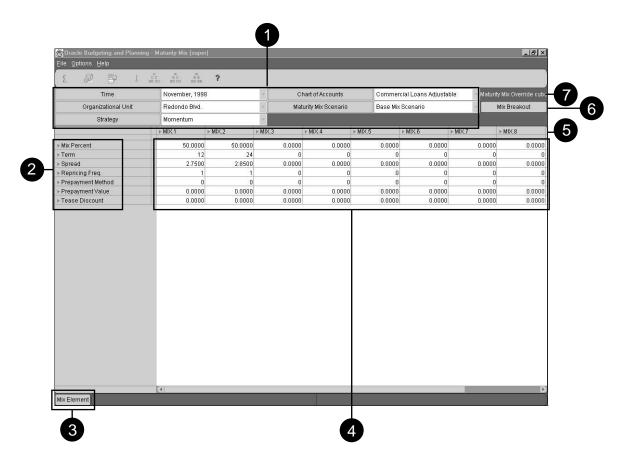
- The Structure of the Maturity Mix Assumption Interface
- Using the Maturity Mix Assumption Interface
- Inputting Values in the Interface
- Saving Your Override and New Assumption Inputs
- Using the Options Menu

## The Structure of the Maturity Mix Assumption Interface

This section describes the components of the interface and provides detailed explanations of the dimensions comprising the Mix Override planning item.

## Components of the Interface

This section describes the components of the interface.



1	Dimensions and active (displayed) dimension values in the current page of the interface	This area displays five of the seven dimensions and associated dimension values active for the current page of the interface. The rows and columns display the other two dimensions.
2	Mix elements for the active Chart of Account product	Each Chart of Account product has specific mix elements associated with it. The mix elements appearing in this area are governed by the active Chart of Account dimension value.
3	Dimension name of the row dimension values	This tile names the dimension whose values appear as rows in the interface.
4	Display and input grid for maturity mix data	Default maturity mix assumption values appear in this grid. Use this area to change default values or add your own assumption values.
5	Mix breakout dimension values	The dimension values of the Mix Breakout dimension are MIX.1, MIX.2 and so forth. Each dimension value occupies a column in the grid.
		You do not need to use all of the Mix Breakout values when revising existing assumptions or adding new ones. Creating assumptions that accurately reflect the maturity behavior of a product determines the number of Mix Breakouts necessary.
6	Dimension name of the column dimension values	This tile names the dimension whose values appear as columns in the interface.
7	Name of the destination variable for new assumption and override data	The seven dimensions of the Maturity Mix Assumption interface are dimensions of the Mix Override planning item.
		This planning item holds your saved inputs, including both new assumption values and overrides to default assumption values. After entering data the application writes your inputs to the Mix Override planning item.

## **Dimensions of the Mix Override Variable**

This section discusses the dimensions and dimension values of the Mix Override variable. You need to understand these dimensions before you enter assumption data in the grid.

#### These dimensions include:

- Mix Element
- Mix Breakout
- Time
- **Chart of Accounts**
- Organizational Unit
- Maturity Mix Scenario
- Strategy

#### Mix Element Dimension

This section contains the following:

- Description of each mix element value
- The association of mix elements and Chart of Account products
- The required mix element values for every mix breakout

Mix Element Dimension Values Listed and Defined Fifteen dimension values comprise the Mix Element dimension. The following table provides descriptions and value constraints for each mix element value.

The shaded rows in this table denote mix element values required for all mix breakouts. You cannot add values to any other mix elements for a particular mix breakout if you do not have values in either Mix Percent or Term.

Mix Element Dimension Values	Description	Value Constraints
Mix Percent	Use this mix element to set the quantity of a product having the specific maturity characteristics for a mix breakout. This quantity is expressed as a percentage of the anticipated dollar volume of new business.	The total percentage value across all mix breakouts must equal 100%.  The interface automatically converts integers to percent values.*
	You must enter a value for mix percent for each mix breakout that you use. Both administrators and business unit managers can enter mix percent values.	Under one condition, nullifying a Mix Breakout, the value can be zero even though mix element values exist in the mix breakout.  The value is null for unused mix breakouts.**
Term	This mix element is the term to maturity for the product for this mix breakout.  For example, if you enter 24 in this cell it indicates that the term of the product for a mix breakout is 24 months.  Express term values in months, not years. Enter the term of a 30-year loan as 360.  You must enter a value for term for each mix breakout that you use. Both administrators and business unit managers can enter term values.	Enter an integer value greater than zero.  The value is null for unused mix breakouts.**
Spread	This is the transfer pricing spread that you want to associate with the term to maturity for the product.	This value is expressed as a percentage.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**

Mix Element Dimension Values	Description	Value Constraints
Repricing Frequency	This mix element represents the number of months between repricing events.  A loan that reprices annually has a value of 12.	Enter an integer value greater than zero.  The value is null for unused mix breakouts.**
Amortization Term	Use this mix element <i>only</i> for loans with amortization terms extending beyond the term to maturity.  The amortization term is expressed in months. For example, enter 180 for a 15-year amortization term.	Enter an integer value greater than the value in the Term mix element.  If the amortization term is equal to the term to maturity <i>do not</i> enter a value for this mix element.  The value is null for unused mix breakouts.**
Residual Value Percent	This mix element represents the residual value for a lease, expressed as a percentage of the original lease amount.	This value is expressed as a percentage. The value is less than 100% and greater than 0%.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**
Prepayment Method	The application is seeded with the following prepayment methods. If you enter a prepayment method value you must use one of the following:  1 = CPR (Constant Prepayment Rate)  2 = PSA (Public Securities Assoc.)  3 = Monthly prepayment speed	Enter integer values of 1, 2, or 3. The value is null for unused mix breakouts.**

Mix Element Dimension Values	Description	Value Constraints
Prepayment Value	The estimated percentage, based on dollar volume, of instruments that will prepay.	If the prepayment method is either 1 or 3, the value is expressed as a percentage.
		If the prepayment method is 2, the value is expressed as a PSA factor, such as 100, 200, 700 and so forth.
		The interface automatically converts integers to percent values.*
		The value is null for unused mix breakouts.**
Rate Increase Period	This mix element stores the maximum percentage the interest rate can increase in each repricing period.	This value is expressed as a percentage.
		The interface automatically converts integers to percent values.*
		The value is null for unused mix breakouts.**
Rate Decrease Period	This mix element stores the maximum percentage the interest rate can decrease in each repricing period.	This value is expressed as a percentage.
		The interface automatically converts integers to percent values.*
		The value is null for unused mix breakouts.**
Rate Increase Life	This mix element stores the maximum percentage the interest rate can increase over the life of the product.	This value is expressed as a percentage.
		The interface automatically converts integers to percent values.*
		The value is null for unused mix breakouts.**

Mix Element Dimension Values	Description	Value Constraints
Rate Decrease Life	This mix element stores the maximum percentage the interest rate can decrease over the life of the product.	This value is expressed as a percentage.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**
Rate Cap Life	The maximum interest rate for the life of the product.	This value is expressed as a percentage.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**
Rate Floor Life	The minimum interest rate for the life of the product.	This value is expressed as a percentage.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**
Tease Discount	This value is the percent by which the note rate is decreased to arrive at the discounted rate. For example, a loan with a note rate of 7.25% and a discounted rate of 5.25% has a value of 2% in this cell.  This rate is in effect until the end of the first repricing period.	This value is expressed as a percentage.  The interface automatically converts integers to percent values.*  The value is null for unused mix breakouts.**

<sup>\*</sup>To input a percentage value, such as 50%, input 50. To input a value of 50.5% input 50.5

For additional information on inputting values see "Input Constraints and Data Logic to Follow When Entering Values" in this chapter.

<sup>\*\*</sup>For unused cells the actual database value is NA (or null). The interface presents an NA value as a black zero.

Displayed Mix Elements Match the Chart of Account Product Selected The mix elements in the rows of the grid are linked to the active Chart of Account product in the interface. Only mix elements relevant to the active Chart of Account product appear.

The Super Administrator links the mix elements and Chart of Account products during implementation.

**Note:** If you notice that a mix element is missing for a Chart of Account value, contact the application administrator.

The following table illustrates how Chart of Account values could be linked to Mix Element values.

If your product is a	The relevant mix element values appearing in the interface might include
Fixed-rate mortgage with a 30 year term and a 30 year amortization	<ul><li>Mix Percent*</li><li>Term*</li><li>Spread</li></ul>
	<ul><li>Prepayment Method</li><li>Prepayment Value</li></ul>
Fixed-rate mortgage with a 5 year term and a 30 year amortization	<ul> <li>Mix Percent*</li> <li>Term*</li> <li>Amortization Term</li> <li>Spread</li> <li>Prepayment Method</li> <li>Prepayment Value</li> </ul>

If your product is a	The relevant mix element values appearing in the interface might include
Adjustable-rate mortgage with a 7 year	■ Mix Percent*
term, 30 year amortization and a teaser rate	■ Term*
Tate	<ul> <li>Amortization Term</li> </ul>
	<ul> <li>Repricing Frequency</li> </ul>
	■ Spread
	■ Prepayment Method
	■ Prepayment Value
	<ul> <li>Rate Increase Period</li> </ul>
	<ul> <li>Rate Decrease Period</li> </ul>
	<ul> <li>Rate Increase Life</li> </ul>
	<ul> <li>Rate Decrease Period</li> </ul>
	■ Rate Cap Life
	■ Rate Floor Life
	■ Tease Discount

<sup>\*</sup>Mix Percent and Term are required for all used mix breakouts

Required Mix Elements You must enter values for Mix Percent and Term for all mix breakouts. If you try to input any mix element value other than these two for a new mix breakout the interface rejects your input. A message appears prompting you to complete values for these required mix elements before continuing.

The exception to this constraint is nullifying the values of a specific mix breakout. For a detailed explanation see "Nullifying a Mix Breakout" in this chapter.

#### Mix Breakout Dimension

Mix Breakout holds the individual breakouts used to forecast maturity assumptions for future cash flows. The mix breakout dimension values are called MIX.1, MIX.2, MIX.3 and so forth and occupy the columns of the grid.

Restraints on Creating New Mix Breakouts Only the Super Administrator can modify the number of mix breakouts available in the interface. The application is seeded with 10 mix breakouts.

#### **Time Dimension**

Time dimension values set the time period you want to review. Select months, not quarters or years. The Maturity Mix Assumption interface recognizes months only.

The Default Ordering of Time Dimension Values in the Selector The default ordering of dimension values is by the hierarchical structure you have created, such as the following example:

Year 1
Quarter 1
Month 1
Month 2
Month 3
Quarter 2
Month 1
Month 2
Month 3

If you select None from the Organize By list box the months appear in chronological order for each year in your forecast, followed by a listing of all the quarters, then the years. All node and leaf values for this dimension appear in the Available box of the Selector.

#### Chart of Account Dimension

Your organization creates node and leaf values for this dimension at the time of implementation. A leaf value for this dimension is the lowest level at which your organization decides to process data.

Recommended Method for Selecting Chart of Account Leaf Values To ensure that you choose leaf values, display your Chart of Accounts by hierarchical structure in the Available box of the Selector.

See Chapter 12, "Using the Selector" for an explanation on displaying this dimension hierarchically. Using the Choose Values by Family tool may also be helpful.

### Organizational Unit Dimension

As with Chart of Account values, your organization creates node and leaf values for organizational units at the time of implementation. These values represent the lowest level at which your organization decides to process organizational unit data.

Recommended Method for Selecting Organizational Unit Leaf Values To ensure that you choose leaf values, display your organizational units by hierarchical structure in the Available box of the Selector.

See Chapter 12, "Using the Selector" for an explanation on displaying this dimension hierarchically. Using the Choose Values by Family tool may also be helpful.

Restraints on Accessing Organizational Units Administrators and business unit managers can only access organizational units for which access has been assigned. The Super Administrator makes the initial assignments. Sub-administrators can make lower-tiered assignments within their areas of assigned responsibility as defined by the Super Administrator. Business unit managers cannot assign access privileges to other business unit managers.

### Maturity Mix Scenario Dimension

A forecast has only one maturity mix scenario.

If you have selected only one Forecast dimension value in the Selector, you do not have to choose a Maturity Mix Scenario dimension value. The choice you make for Forecast governs the Maturity Mix Scenario value that appears in the interface.

If, however, you select multiple Forecast dimension values in the Selector and each forecast has a unique maturity mix scenario then multiple Maturity Mix Scenario values appear as choices for this dimension in the Maturity Mix Assumption interface.

Since Forecast is not a dimension of the Mix Override planning item you cannot tell, from the interface, which scenario goes with which forecast. If you are forecasting multiple maturity mix scenarios you need to remember which scenarios are associated with which forecasts.

## Strategy Dimension

Momentum is the default value for this dimension. If your organization has created additional values for this dimension they can be selected as well.

If your organization has created a hierarchical structure for this dimension be sure to select leaf values.

## **Currency Dimension**

Base Currency is the default value for this dimension. If your organization has created additional values for this dimension they can be selected as well.

If your organization has created a hierarchical structure for this dimension be sure to select leaf values.

## Using the Maturity Mix Assumption Interface

This section contains the following:

- Selecting data and accessing the interface
- Recognizing the difference between Read-only and Read/Write cells
- Recognizing the difference between default values and override values
- Changing the physical appearance of the display and input grid

## Selecting Data and Accessing the Interface

When you log in to Budgeting & Planning the Selector automatically appears. You must use the Selector to retrieve the data you want to review. See Chapter 12, "Using the Selector" for detailed information on using this tool.

After selecting your data open the Maturity Mix Assumption interface by following this step:

From the Options menu select Maturity Mix Assumptions.

When the interface opens any data appearing in the grid is default assumption data input by either the Super Administrator or a sub-administrator.

## How the Interface Differentiates Data in the Grid

The interface differentiates the following:

- Read-only from Read/Write cells
- Default values from override values

## Distinguishing Read-Only From Read/Write Cells

The interface differentiates read-only from read/write cells by shading. Read-only cells are shaded. You cannot change the values in these cells. Read/write cells are not shaded and the values can be changed.

Cells become read-only in the following two ways.

Historical Data is Read-Only Historical or actual data is read-only. The application shows historical data as shaded. The application separates historical data from forecasted data using the Forecast's as-of-date. Data prior to the as-of-date cannot be changed. Data following the as-of-date is projected and can be changed.

For example, if you select June through December for your Time values and the as-of-date is August 31st, data in the cells from June through August is shaded and data from September through December is unshaded.

The Super Administrator establishes and advances the as-of-date.

Forecasted Data Designated as Read-Only by Administrators Administrators can designate some cells as read-only and others as read/write. Cells set to read-only appear shaded in the interface, even though the values represent forecasted data.

For example, your organization decides not to allow revisions to the transfer pricing spread for certain products. When you select these products the row for the Spread mix element appears shaded.

## Distinguishing Between Default and Override Values

The interface differentiates default and null values from your input by color. A black font indicates default and null values. A blue font indicates your changes. This helps you distinguish your input from default assumptions.

## Changing the Data Display in the Interface

You can change the data display in the interface two ways:

- Adjusting the width of columns and the height of rows
- Maximizing the interface

## Adjusting Column and Row Sizes

This section tells you how to change column widths and row height.

Changing Column Widths and Row Height Adjust column widths by following these steps:

- Place your cursor over a line that separates two columns. The shape of the cursor changes to a line with two arrows.
- While holding down the left button of your mouse, move the dual-arrowed line either to the right or left. As you move, the width of the column changes.
- When the column width is the size you want, release the mouse button.
- All of the columns in the interface adjust to the selected width.

Follow the same steps to adjust row height.

**Note:** These adjustments apply globally. You cannot adjust the width of one column independent of other columns nor can you adjust individual row height.

Adjusted Column and Row Settings Remain In Place During a Session Adjusted column and row settings remain in place during your session in the application and carry over to the main forecasting window. If you decide, later in your session, to adjust either columns or rows again the new settings replace the previous ones.

Upon exiting the application your customized column and row settings revert to the default width and height.

## Maximizing the Interface

Maximize your interface so that the entire description of each dimension value appears. A partially enlarged window truncates the dimension value descriptions, making it difficult to correctly identify them.

Click the Maximize icon in the upper right corner of the window to enlarge the interface.

> **Note:** In this interface, the position of the dimension tiles cannot be changed.

## Inputting Values in the Interface

Administrators can either create default maturity mix assumptions for products and organizational units or leave default assumptions blank. The Maturity Mix

Assumption interface gives business unit managers the ability to adjust (override) an administrator's default maturity mix assumptions or input their own assumptions when none have been defined.

The Maturity Mix Assumption interface enables business unit managers to change maturity assumptions for new business. This functionality recognizes the fact that customer behavior and product maturity assumptions can vary between organizational units.

This section provides the following information on inputting data to the interface:

- Importance of selecting leaf values
- An approach to viewing data in the interface
- Navigating the grid and inputting values
- Inputting override and new assumption data
- Input constraints and data logic to follow when entering values

## Importance of Selecting Leaf Values

The interface enables input for leaf values but not node values. As you make your selections remember to select leaf values in order to view and input changes to the interface.

For dimensions with hierarchical structures you can either organize your dimension values using that structure or use the Choose Values by Family tool and select Last Descendants. See Chapter 12, "Using the Selector" for more information on using this tool.

You can include node values in the Selector, however, the interface filters these out. For example, if you select the node Quarter 1, 1999 and the leaf values January, February, and March only the individual months appear as values in the Time dimension.

## Leaf Value Error Message

If you fail to designate leaf values for a particular dimension an error message appears when you select Maturity Mix Assumption from the Options menu. The message prompts you to select leaf values before continuing.

## Navigating the Grid and Inputting Values

Explanations on navigating between cells in the grid and inputting values follow:

#### Moving Between Cells

Use the arrow keys to move between contiguous cells in the grid and your mouse to move between non-contiguous cells.

#### Inputting Values

After typing your value, press either the Enter key or the Tab key to enter the value to the grid.

## Inputting Override and New Forecast Assumption Data

This section discusses:

- Inputting override data in mix breakouts with existing data
- Inputting new values in unused mix breakouts
- Revising data previously input

## Inputting Override Data in Mix Breakouts With Existing Data

To change or add values to mix breakouts with existing values input your values directly in the cells you want to change. This process is the same whether you are overriding default assumption data or changing override data previously input.

## Inputting New Values In Unused Mix Breakouts

When you open the Maturity Mix Assumption interface you may find that not all of the available mix breakouts have been used for a product, or, alternatively, no default assumptions have been defined at all.

Leaving mix breakouts unused (without default assumption data) reflects the Super Administrator's or a sub-administrator's decision that either not all mix breakouts are necessary or they are relying on business unit managers to forecast maturity assumptions.

### **Revising Previously Input Values**

You can change previously input values using the following methods:

- Entering revisions in the grid
- Using the Revert to Default Assumption Values feature
- Using the Copy Across feature

**Entering Revisions in the Grid** You can enter your revisions directly in the grid, wherever the cells are Read/Write.

Using the Revert to Default Assumption Values Feature This method actually deletes your override values from the interface and brings back any default assumption values. This feature changes only the values on the current page of the interface. See "Reverting to the Default Assumption Values" in this chapter for more information on how to use this feature.

**Using the Copy Across Feature** This method takes the values from the current page of the interface and copies them across the Time and Organizational Unit dimensions. This process overwrites your previous inputs. It can also overwrite default assumptions. See "Copying Values to Cells Across the Time and Organizational Unit Dimensions" in this chapter for more information on how to use this feature.

## Input Constraints and Data Logic to Follow When Entering Values

Input constraints and data logic must followed, whether you are inputting new values or overriding default assumptions. Some constraints apply specifically to inputting values in unused mix breakouts while others apply to both new values and default values.

## **Input Constraints for Unused Mix Breakouts**

This section explains the following:

- Adding data to contiguous mix breakouts
- Inputting Mix Percent and Term values first
- Totalling the Mix Percent values to 100%
- Nullifying a mix breakout

Add Data to Contiguous Mix Breakouts You must add values to contiguous mix breakouts.

For example, you cannot add data to mix breakout 2 (MIX.2) and mix breakout 4 (MIX.4) without having values in mix breakout 3 (MIX.3).

If you try to enter values in a non-contiguous mix breakout an error message appears in the status bar in the lower right corner of the window. This message tells you to use the first available mix breakout.

Input Mix Percent and Term First For unused mix breakouts Mix Percent and Term values must be input first.

If you try to input a value in any cells other than these two an error message appears in the lower right corner of the window. This message tells you to first enter a value for Term. The cell for Term becomes shaded in red. When you input a value in the Term cell the shading disappears and the Term value remains.

A similar error message appears if, after entering a Term value, you try to enter a value other than Mix Percent. In this case the error message tells you to first enter a value for Mix Percent. The Mix Percent cell is shaded in red.

When you input a value in the Mix Percent cell the shading disappears and the Mix Percent value remains.

**Note:** If either Term or Mix Element are read-only you cannot input values to unused mix breakouts.

The Cumulative Mix Percent For All Mix Breakouts Must Equal 100% The total of all Mix Percent values must equal 100%, otherwise you cannot exit the Maturity Mix Assumption interface.

The interface does not round percentages. You must set each Mix Percent value so that the total equals exactly 100%. For example, if you have one mix breakout and want to add two more, yet keep all three equal, you must enter percentage values such as the following: 33.3%, 33.3%, and 33.4%.

If the totalled Mix Percent values do not equal 100% and you try to close the interface an error message appears. Revise your Mix Percent values so that they total 100%, then exit.

Nullifying a Mix Breakout Nullify a mix breakout by changing the Mix Percent value to zero. This excludes the values in the mix breakout from your forecasted cash flows.

**Note:** To nullify a mix breakout, change the Mix Percent value to zero. Do not change any other values in the Mix Breakout.

You can use this feature in the following two scenarios:

- Nullifying either default or override assumptions
- Nullifying a mix breakout when a Term value is accidently input

#### **Nullifying Either Default or Override Assumptions**

This feature gives you the option of nullifying mix breakout values rather than changing them. Use this feature with the Copy Across feature when you want to nullify individual mix breakouts within your forecasted maturity mix. See "Copying Values to Cells Across the Time and Organizational Unit Dimensions" in this chapter for information on how the Copy Across feature can be used in conjunction with this option.

#### Nullifying a Mix Breakout When a Term Value is Accidently Input

You cannot enter a zero for Term mix element once a value has been input. If you inadvertently enter a Term value you must enter a zero in the Mix Percent element to nullify the mix breakout. The application does not let you exit the interface with a value in Term but not Mix Percent.

Another feature allows you to nullify an inadvertent Term value however this feature has implications for all of the values on the current page of the interface, not just the Term value that you want to change back to zero. See "Reverting to the Default Assumption Values" in this chapter for an explanation of this feature.

#### Input Constraints and Data Logic for All Mix Breakouts

The following input constraints and data logic apply when:

- Overriding default values in existing mix breakouts
- Entering new data to unused mix breakouts

Input Constraints and Data Logic	Explanation
Decimal values and integers	Decimal values cannot be input to cells that require integers.
	Integers can be input to cells requiring percentage values. The application automatically converts the integer to a percentage value.
Prepayment Method and Prepayment Values	If you enter a value for Prepayment Method you must enter a value for Prepayment Value also.
	A Prepayment Value cannot exist without a Prepayment Method entered.
Term and Amortizing Term	Input a value for Amortizing Term only when the amortizing term is greater than the instrument term.
	Do not enter a value for Amortizing Term if the instrument term and the amortizing term have the same duration.
	All term values are expressed in months. For a loan with a 15-year amortization enter 180 in the cell.
Term and Repricing Frequency	The Repricing Frequency must be greater than zero and less than the term of the loan.
	Express the Repricing Frequency as the number of months between repricing events.

## **Using the Options Menu**

The options available from this menu selection include:

- Reverting to the default assumption values
- Copying input values to multiple cells across the Time and Organizational Unit dimensions

This section describes each option.

#### Reverting to the Default Assumption Values

This option enables a business unit manager to delete all entered values and revert to either the default maturity mix assumptions input by the administrator or reset all values to zero (null) if no default values previously existed.

This Option Applies Only to the Current Page This option applies only to data for the current page of the interface. When you invoke this option changes occur only to the active dimension values, causing them to revert to either default assumptions or to zero if no default values existed prior to your input. If you selected multiple organizational units, time dimension values and Chart of Account products for this session, only the active dimension values revert. Dimension values for all other organizational unit, time and product combinations remain unchanged.

This is a global operation for the current page. You cannot keep some override values and delete others.

#### Copying Values to Cells Across the Time and Organizational Unit Dimensions

The copy feature enables you to copy default and override values to multiple cells in mix breakouts. You can copy values across the Time dimension, the Organizational Unit dimension, or both.

**Note:** The Copy Across feature affects only the values you choose using the Selector. No other values in the Mix Override planning item change.

#### Copying Across the Time Dimension

This feature enables you to copy your override values from the current page to all future time values for the active organizational unit and Chart of Account product. This function does not affect Time dimension values earlier than the active Time dimension value.

Default assumption values for future time values are not affected unless you have overridden them in the current page.

**Example:** The following table displays the parameters of a session for this example:

Dimension	Dimension Values			
Organizational Unit	■ Elm Street Branch			
	<ul> <li>Highland Street</li> </ul>			
Time	January through December (12 individual months selected)			
Chart of Accounts	<ul> <li>Commercial Loans - Fixed</li> </ul>			
	<ul> <li>Commercial Loans - Adjustable</li> </ul>			
	■ Line of Credit			
Forecast	Base			
Strategy	Momentum			
Currency	Base			

The following dimension values are active:

Dimension	Dimension Value
Organizational Unit	Highland Street
Time	June
Chart of Accounts	Commercial Loans - Adjustable
Forecast	Base
Strategy	Momentum
Currency	Base

In this example a business unit manager enters changes in the month of June and invokes the Copy Across Time function. The values input for this month are copied to the mix breakouts for adjustable commercial loans at the Highland Street branch from July through December.

Unaffected Values Values between January and May for adjustable commercial loans at the Highland Street branch do not change.

Also, this function does not change values for adjustable commercial loans at the Elm Street branch.

**Invoking the Copy Across Time Feature** Follow these steps to invoke this feature:

- 1. From the Options menu select Copy Across -> Time.
  - The Copy Across Time message box appears, informing you that this operation copies all override values to future time periods.
- 2. Click OK to invoke this operation.

#### Copying Across the Organizational Unit Dimension

This feature enables you to copy override values from the current page to all organizational units chosen for this session, not just the active organizational unit.

Invoking the Copy Across Organizational Unit Feature Follow these steps to invoke this feature:

- 1. From the Options menu select Copy Across -> Organizational Unit.
  - The Copy Across Organizational Units message box appears, informing you that this operation copies all override values from the current page to all organizational units chosen for this session.
- **2.** Click OK to invoke this operation.

#### Copying Across the Time and Organizational Unit Dimensions

This feature combines the copying functionality of both Copy Across Time and Copy Across Organizational Unit. Override values are copied from the current page to all organizational units chosen for this session and all future time periods.

Invoking the Copy Across Time and Organizational Unit Feature Follow these steps to invoke this feature:

- 1. From the Options menu select Copy Across -> Time and Organizational Unit.
  - The Copy Across Time and Organizational Units message box appears, informing you that this operation copies all override values from the current page to all future time periods and all organizational units chosen for this session.
- **2.** Click OK to invoke this operation.

#### Changing Your Input After Using the Copy Across Feature

Use either of the following two methods to change data copied to multiple cells.

Using the Copy Across Option This method overwrites existing data with new data using the Copy Across feature. You can either change all of the data previously copied or make revisions to selected mix elements.

To use this method, follow these steps:

- 1. Re-select the active dimension values previously used.
- Input your revisions in the grid.
- Invoke the same Copy Across feature that you used before.

The revised Mix Element values are copied to the Time, Organizational Unit and Chart of Account combinations previously selected. Unchanged mix elements in the current page remain unchanged in other dimension combinations.

**Note:** It is important to use the same Copy Across feature for your revisions as you used for the initial process. This ensures that your revised data overwrites data for the same Time, Organizational Unit, and Chart of Account combinations as before.

Remember that Time dimension values are copied from the active time period to all *future* time periods chosen for this session.

Using the Revert to Default Values Option Use this method to change your revisions back to the default assumption values.

To use this method, follow these steps:

- Re-select the active dimension values previously used.
- 2. From the Options menu choose Revert to Default Values. All values for the current page revert to default assumption values.
- **3.** Invoke the same Copy Across feature that you used before.

The Copy Across feature deletes all of your override values and reinstates default assumption values to the interface. Where your initial changes actually added new data rather than overriding default assumptions the values in the cells revert to null.

## Saving Your Override and New Assumption Inputs

After inputting your maturity mix assumptions or overriding default assumptions follow these steps to save your inputs:

From the File menu select Close.

If you have input your data correctly the Maturity Mix Assumption interface closes and the main forecast window appears.

If you have not input your data correctly an error message appears explaining why you cannot close the interface. Correct the errors described in the message and then start again at step 1.

From the File menu select Save.

Your inputs are saved to the Mix Override variable.

**Note:** The interface retains your last selection parameters from the current session and carries those parameters to your next session.

# **Generating Reports**

The Budgeting & Planning data model and programs included in this release have been designed to support the quick and efficient generation of reports normally required to review budget and forecast data as part of your organization's planning process.

Effective with the release of the Web-enabled version of Budgeting & Planning, users can now access reports that have been defined in Oracle Financial Analyzer (OFA) directly from the Budgeting & Planning interface. Web users who have received report access through the OFA distribution functionality can open a list of available reports from within the main Budgeting & Planning interface, select the desired report(s) and produce those reports for both viewing and printing.

This release also includes additional, seeded standard reports created specifically for use with the Web-enabled version of the application.

This chapter presents the following topics:

- **Reporting Features**
- **Producing Reports**
- Reporting Elements
- **Report Totals and Sub-Totals**
- **Basic Report Formats**

## Reporting Features

This version of Budgeting & Planning includes the following features:

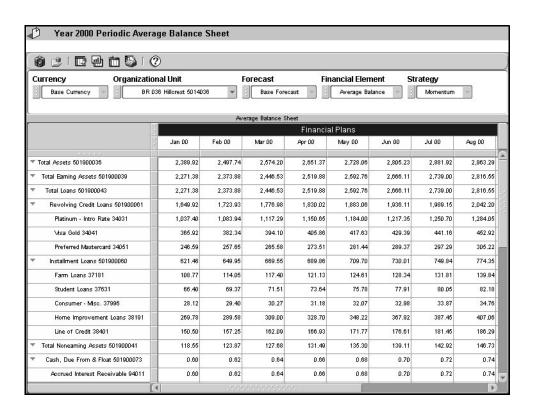
- Budgeting & Planning generates and writes most of the financial elements required for standard reporting needs directly to the Financial Plans planning item in the Express database.
- Aggregation of data values is routinely performed by the application to generate and write totals and sub-totals to the database for reporting access at summary organizational, product, and time levels.
- A set of standard reports have been provided, addressing typical business requirements, for business unit managers and supervisors to use in reviewing financial results in a forecasting or budgeting exercise.
  - Reports that were seeded for use with the OFA client/server software have been expanded to include comparable balance sheet, income statement, and rate reports that can now be accessed over the Web using Budgeting & Planning.
- A new report icon and menu selection have been added to the interface to enable users to open a list of available reports and review and print budget and forecast projections directly from the Budgeting & Planning application.
- When an end user clicks Generate Report the selected report is produced in a browser window that is separate from the browser window used by Budgeting & Planning.
- You can have multiple reports open at the same time. When you open multiple reports, each is opened in its own browser window. These reports can be printed directly from the browser.

## **Producing Reports**

Reports that have been defined and distributed to end users for access using the Web-enabled version of Budgeting & Planning can be produced directly from the **Budgeting & Planning interface.** 

#### The Reports Interface

Each report appears in its own browser window as shown in the following example of the Year 2000 Periodic Average Balance Sheet report.



#### **Opening and Closing Specific Reports**

This section explains how to open reports for viewing and printing and how to close the report when you complete your work.

To produce a report you first need to open the list of reports available to you.

#### Opening the Reports List

Open the Reports list using either of these two methods:

From the Menu Bar From the Tools menu option select Show Reports. The list of available reports appears in a new pane of the interface.

From the Tool Bar Click the Reports icon. The icon label appears as Open Reports. The list of reports appears.

#### Closing the Reports List

Using either the Tools menu option or the Reports icon, reverse the process to close the Reports list. The Tools menu option and the icon labels change to Hide Reports when a report is open.

#### Opening an Individual Report

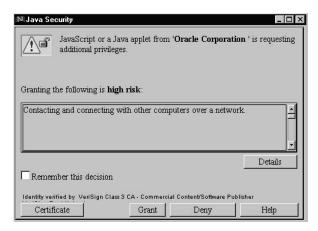
When you select a report your browser opens it in a new browser window that exists independently of the main window of the interface. Opening additional reports opens additional browser windows, one for each report you select.

Follow these steps to open a specific report:

- From the Reports list click the report you want to open.
- Click Generate Report.

A new browser window opens and the application begins transferring data for your report. Before displaying the first report of a session a Java Security dialog box appears.

As indicated in the message box, additional privileges need to be granted in order to generate the report.



Click Grant to proceed with the production of the report.

The tile section and column headings for the report appear first, followed by the report itself.

While the application fetches data the following message appears on the status bar at the bottom of your screen: Transferring data from <name of server providing Budgeting & Planning data>.

**Note:** The first report may take some time to display. Subsequent reports open faster than the original report.

Opening Multiple Reports You can select and generate as many reports as you want. Each report appears in a separate browser window.

This functionality enables you to open and close a report independently of other reports.

Each report description appears on the status bar at the bottom of your screen and can be accessed by clicking the title representing that report.

**Updating Report Content** You can update the content for an open report by clicking the Reload icon on the Tool bar.

OFA Web Client Functionality When you generate a report from the Budgeting & Planning application an OFA Web Client session is launched. This application actually produces the report. The OFA Web Client session accesses data from the same Express session that you are using for Budgeting & Planning.

Report-related features available in the standard OFA Web Client interface are also available through the Budgeting & Planning interface. Refer to online help in the Reporting interface or to the Oracle Financial Analyzer Reference Guide for information on how to use report-related functionality from the interface.

#### Closing an Individual Report

To close an individual report select File -> Close from the browser window containing the report. This closes both the report and its browser window. Follow the same procedure to close additional reports you may have opened.

#### Timing Out of a Session

If you cannot open a report or use any of the reporting features you may have timed out of your session.

You can test this by trying to exit the application. If a Selector Error message appears, indicating that your WebAgent session is no longer available you must exit both the application and Web browser, then log in again. See "Your Session Timed Out" in Chapter 9, "Logging In".

#### **Printing Reports**

When printing a report from the browser, be sure to print by clicking on the print button in the OFA Web Client document tool bar. Use the following instructions from the OFA Web Client online help as a guide:

You can print the data in a report and specify settings that determine how you want your printed page to look.

- In the Document toolbar, click Print. The Print dialog box for your Web browser appears.
- You can change the print defaults for the browser. For example, you can specify new values for your printer or the number of copies.
- Click OK to continue. The Print dialog box for OFA appears.

4. In the Print box, specify the pages that you want to print. You can choose one of the following options:

Current Page of Data Prints the current page of data as indicated by the page

labels.

Prints all pages of data in the report, beginning at the All xx pages of Data

first logical page, regardless of the current page

settings.

Tip: If the number of pages is very large, then you might want to use the Selector tools to choose values that will result in fewer pages of data.

5. In the Order box, specify the order in which to print the pages. You can choose one of the following options:

Across then down Prints as many rows and columns as will fit on a

> physical page, then moves across the columns (until all are printed) and then down the rows (until all are

printed).

Down then across Prints all rows of data, then all columns of data.

To indicate how you want the printed pages to look, choose Page Setup. This opens the Page Setup dialog box where you can perform the following operations:

Specify: ■ Optional header text for the printed pages. You can enter up to 100 characters.

- Optional footer components for the printed pages.
- Whether page, row, and column labels will be repeated on each printed page.
- Whether title, subtitle, and footnotes will appear on the printed pages.
- Margin settings for the printed pages.

**7.** Choose Print Preview to review the pages before printing.

This opens the Print Preview dialog box, which displays the components specified in the Page Setup dialog box. You can set margins, header, footer, and so on.

Click OK to print the report.

## **Reporting Elements**

Typical financial statement requirements include both trend reports delineating budget or forecast values over time and comparative reports that compare quarterly or annual amounts from one period to another.

These reports would normally cover the following financial data elements:

- **Average Balance Sheet**
- **Ending Balance Sheet**
- Average Rates
- **Average Transfer Rates**
- **Transfer Pricing Spreads Dollars**
- Average Transfer Pricing Spreads Percentages
- Transfer Pricing Spread Based Income Statement
- Interest Income/Expense Based Income Statement

The application generates and writes most of the financial elements required for standard reporting needs directly to the Financial Plans planning item in the Express database. This approach avoids the need for calculating items such as average rates or transfer rates through the use of formulas by storing those items in the database and making them directly available for access by reports.

The data model is seeded with the following financial elements that are populated with the results of running the interface:

Financial Element	Description	_
F100	Ending Balance	
F140	Average Balance	
F160	Average Net Rate	

Financial Element	Description
F170	Average Transfer Rate
F455	Non Interest Income
F457	Non Interest Expense
N451	TP Spread Income
N171	Average Spread
A420	Annualized Interest
A450	Annualized Charge/Credit

## **Report Totals and Sub-Totals**

The application includes routines developed to solve or aggregate data in the Financial Plans planning item along organizational, chart of accounts, time, and any other user-defined hierarchies. When Calculate With Partial Solve or Calculate With Full Solve are processed in the Java interface the aggregation of leaf-level data is performed, which generates aggregated values for parents and nodes along the hierarchies. This means that sub-total rows on a product hierarchy for items such as total loans, total investments or total assets are calculated and written back to the database at the last descendent organizational unit level.

Consolidations up the organizational hierarchy are also performed and values for the quarter and year time buckets are calculated and written back to the database as well.

All of these nodes, or parent data values, are available for access in seeded reports and reports you create in OFA. For example, if you produce a balance sheet report with product average balances you no not need to create a formula to sum values within the product hierarchy.

After solving or aggregating your data, you can select 'Total Assets' using the Selector to create the Total Asset value in the report. By selecting quarter or year values for the Time dimension you can display quarterly or annual totals in your report. Selecting 'Total Company' on the Organizational hierarchy paging dimension accesses aggregate values for that parent node.

See Chapter 12, "Using the Selector" for additional information on using this tool to select data from the database.

### **Basic Report Formats**

Each report incorporates one of the following formatting types:

Report Format	Explanation		
12-Month Trend Report with Year Total (BP/OFA Web Client version and OFA client/server version)	The first twelve, monthly time bucket values and the corresponding Year Time bucket are returned based on the seeded Time dimension selection.		
Comparative Report (OFA client/server version)	Compares the first two Year Time bucket values using a seeded dollar variance column and a seeded percent variance column.		
Comparative Report (BP/OFA Web Client version and client/server version)	Compares the Current Year and Last Year Time bucket values using seeded formulas for all columns. Current Year is determined using the Forecast as-of-date. Year values are returned and adjusted automatically as the Forecast as-of-date is moved forward across a year-end into a new year.		

#### **List of Seeded Reports**

The following tables list the seeded reports included in this release. The first table reflects the reports seeded in the earlier version of Budgeting & Planning for use with OFA client/server software, and includes the variables and financial elements supporting each report. The Across, Down, and Paging dimensions indicate the placement of these dimensions in the report itself. The Periodic reports can also be viewed when launched from within the Web-enabled Budgeting & Planning application.

#### Seeded Reports From the Client/Server Version

The following table lists the seeded reports provided for the client/server version of Budgeting & Planning. Shaded reports have comparable versions in the Web-enabled release of the application. Refer to "Seeded Reports for the Web-Enabled Version" in this chapter for a list of those comparable reports.

Report Name	Variable Object Name	Financial Element		Down Dimension	Paging Dimension(s)
Periodic Average Balance Sheet	FS.FIN_DATA	F140	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy

Report Name	Variable Object Name	Financial Element		Down Dimension	Paging Dimension(s)
Periodic Ending Balance Sheet	FS.FIN_DATA	F100	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Interest Rates	FS.FIN_DATA	F160	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Transfer Pricing Percentage Spreads	FS.FIN_DATA	N171	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Periodic Margin Analysis	FS.FIN_DATA	F160, F170, N171	Time	Chart of Accounts, Financial Element	Currency, Organizational Unit, Forecast, Strategy
Comparative Average Balance Sheet	FS.FIN_DATA	F140	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Ending Balance Sheet	FS.FIN_DATA	F100	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Interest Rates	FS.FIN_DATA	F160	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Transfer Pricing Percentage Spreads	FS.FIN_DATA	N171	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Comparative Margin Analysis	FS.FIN_DATA	F160, F170, N171	Time	Chart of Accounts, Financial Element	Currency, Organizational Unit, Forecast, Strategy
Originations by Account	FS.FIN_DATA	F340	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy

Report Name	Variable Object Name	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
Origination Spreads by Account	FS.FIN_DATA	F375	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Financial Element, Strategy
Origination Spreads by Org Unit	FS.FIN_DATA	F375	Time	Organizational Unit	Currency, Chart of Accounts, Forecast, Financial Element, Strategy
Periodic Income Statement	FS.REG_INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
Periodic Transfer Pricing Spread Income Statement	FS.INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
Comparative Income Statement	FS.REG_INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
Comparative Transfer Pricing Spread Income Statement	FS.INC_STMT	NA	Time	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy

#### **Seeded Reports for the Web-Enabled Version**

The following table lists the seeded reports included with this release for the Web-enabled version of Budgeting & Planning. These reports can be produced either when launched from within Budgeting & Planning or from within the client/server version of OFA.

Report Name	Formulas Used	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
WebComp Average Balance Sheet  WebComp Ending Balance Sheet	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> </ul>	F140	FinData Formulas (4) FinData Formulas (4)	Chart of Accounts  Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy  Currency, Organizational Unit, Forecast, Strategy
	<ul> <li>Current Year Percent Variance</li> </ul>				G.
WebComp Interest Rates	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	F160	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
WebComp TP Percentage Spreads	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	N171	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy
WebComp Margin Analysis	<ul> <li>FinData Current Year</li> <li>FinData Last Year</li> <li>Current Year Variance</li> <li>Current Year Percent Variance</li> </ul>	F160, F170, N171	FinData Formulas (4)	Chart of Accounts	Currency, Organizational Unit, Forecast, Strategy

Report Name	Formulas Used	Financial Element	Across Dimension	Down Dimension	Paging Dimension(s)
WebComp Income Statement	<ul> <li>Comp Income Stmt Current Year</li> </ul>	NA	FinData Formulas	Income Statement	Currency, Organizational
	<ul> <li>Comp Income Stmt Last Year</li> </ul>		(4)		Unit, Forecast, Strategy
	<ul> <li>Comp Income Stmt Variance</li> </ul>				
	<ul> <li>Comp Income Stmt Percent Variance</li> </ul>				
	<ul><li>(Embedded formulas)</li></ul>				
WebComp TP Spread Income Statement	<ul> <li>Comp Income Stmt Current Year</li> </ul>	NA	FinData Formulas (4)	Income Statement	Currency, Organizational Unit, Forecast, Strategy
	<ul> <li>Comp Income Stmt Last Year</li> </ul>				
	<ul> <li>Comp Income Stmt Variance</li> </ul>				
	<ul> <li>Comp Income Stmt Percent Variance</li> </ul>				
	■ (Embedded formulas)				
Web Periodic	<ul> <li>Interest Income</li> </ul>	NA	Time	FinData Formulas (9)	Currency, Organizational Unit, Forecast, Strategy
Income Statement	<ul> <li>Interest Expense</li> </ul>				
Statement	<ul> <li>Net Interest Income</li> </ul>				
	<ul> <li>Loan Loss Provision</li> </ul>				
	<ul> <li>Non Interest Income</li> </ul>				
	<ul> <li>Non Interest Expense</li> </ul>				
	<ul> <li>Income Before Taxes</li> </ul>				
	<ul><li>Income Tax</li></ul>				
	<ul><li>Net Income</li></ul>				
	■ (Embedded formulas)				

Report Name	Formulas Used	Financial Element		Down Dimension	Paging Dimension(s)
Web Periodic TP Spread Income Statement	<ul> <li>Asset Spread Income</li> <li>Liability &amp; Capital Spread Income</li> <li>Total Spread Income</li> <li>Loan Loss Provision</li> <li>Non Interest Income</li> <li>Non Interest Expense</li> <li>Net Income Before Taxes (TP)</li> <li>Income Tax (TP)</li> <li>Net Income (TP)</li> <li>(Embedded formulas)</li> </ul>	NA	Time	FinData Formulas (9)	Currency, Organizational Unit, Forecast, Strategy

# **Part III**

# **Appendixes**

Part III includes detailed reference information about the application.

#### **Audience**

This section is written for the following:

- Super Administrator
- DBA
- System Administrator

#### Content

This section includes the following chapters:

- Appendix A, "Financial Elements"
- Appendix B, "Cash Flow Calculations"
- Appendix C, "Express and OFA Object Descriptions"
- Appendix D, "Details of the Maturity Mix Data Model"
- Appendix E, "Express Programs, Objects and Processes"

# **Financial Elements**

This appendix lists the seeded financial elements for Oracle Budgeting and Planing in the following two tables:

- Sorted by the Financial Element Identifier
- Sorted by the Financial Element Description

# Sorted by the Financial Element Identifier

FS.FIN_ELEM	FE.DESC
F60	Beginning Balance
F70	Beginning Gross Rate
F80	Beginning Net Rate
F90	Beginning Transfer Rate
F100	End Balance
F110	Ending Gross Rate
F120	Ending Net Rate
F130	Ending Transfer Rate
F140	Average Balance
F141	Average Account Balance
F142	Average Total Balance
F143	Average Percentage Active
F144	Average Volume Total

FS.FIN_ELEM	FE.DESC
F150	Average Gross Rate
F160	Average Net Rate
F170	Average Transfer Rate
F172	Average Rem Term Transfer Rate
F180	Prepay Runoff Positive
F181	Timing of Prepay Runoff Positive
F182	Prepay Runoff Negative
F183	Timing of Prepay Runoff Negative
F190	Payment Runoff Positive
F191	Timing of Payment Runoff Positive
F192	Payment Runoff Negative
F193	Timing of Payment Runoff Negative
F195	Maturity Runoff Positive
F196	Timing of Maturity Runoff Positive
F197	Maturity Runoff Negative
F198	Timing of Maturity Runoff Negative
F210	Total Runoff Positive
F211	Timing of Total Runoff Positive
F212	Total Runoff Negative
F213	Timing of Total Runoff Negative
F220	Total Runoff Gross Rate
F230	Total Runoff Net Rate
F235	Prepay Runoff Net Rate
F240	Total Runoff Transfer Rate
F245	Prepay Runoff Transfer Rate
F250	Repricing Balance
F255	Repricing Balance At End
F260	Before Repricing Gross Rate

FS.FIN_ELEM	FE.DESC
F270	After Repricing Gross Rate
F280	Before Repricing Net Rate
F290	After Repricing Net Rate
F300	Before Reprice Transfer Rate
F310	After Reprice Transfer Rate
F320	Fully Indexed Gross Rate
F330	Fully Indexed Net Rate
F340	New Add Balance
F341	Rollover Percentage
F342	Net New Business
F350	New Add Gross Rate
F360	New Add Net Rate
F370	New Add Transfer Rate
F375	New Add Spread
F380	Roll Add Balance
F390	Roll Add Gross Rate
F400	Roll Add Net Rate
F410	Roll Add Transfer Rate
F420	Interest
F425	Interest Amount Gross
F430	Interest Cash Flow
F435	Interest Cash Flow Gross
F437	Interest Cash Flow T-Rate
F440	Interest Accrued
F445	Interest Accrued Gross
F450	Charge/Credit
F452	Charge/Credit Rem Term
F455	Non Interest Income

FS.FIN_ELEM	FE.DESC
F457	Non Interest Expense
F460	Accrued Interest Ending Balance
F470	Accrued Interest Average Balance
F480	Interest Credited
F490	Discount Rate
F500	WARM
F510	Annual Prepayment Rate
F515	Balance Before PrePay
F520	Deferred End Balance
F530	Deferred Average Balance
F540	Deferred Runoff
F550	Period Cap Balance
F560	Period Cap Effect Rate
F570	Period Cap Effect Amount
F580	Life Cap Balance
F590	Life Cap Effect Rate
F600	Life Cap Effect Amount
F610	Tease Balance
F620	Tease Effect Rate
F630	Tease Effect Amount
F640	Neg Am Balance
F650	Neg Am Interest
F660	Gap Runoff
F661	Gap Principal Runoff
F662	Gap Repricing Runoff
F663	Gap Deferred Runoff
F670	Gap Runoff Term
F671	Gap Interest Cash Flow Gross

FS.FIN_ELEM	FE.DESC
F672	Gap Interest Cash Flow Net
F673	Gap Interest Cash Flow Transfer
F674	Gap Accrued Interest Gross
F675	Gap Accrued Interest Net
F676	Gap Accrued Interest Transfer
F677	Gap Interest Credited
F680	Gap Runoff Gross Rate
F690	Gap Runoff Net Rate
F700	Gap Runoff Transfer Rate
F710	Market Value
F720	Duration
F730	Convexity
F740	New Gross Balance
F750	New Net Balance
F760	Cur Pos Reprice Balance
F765	Adj Cur Pos Reprice Balance
F768	Cur Pos Before Reprice Rate
F770	Cur Pos After Reprice Rate
F775	Adj Cur Pos Reprice Rate
F778	Cur Pos Before Reprice T-Rate
F780	Cur Pos After Reprice T-Rate
F785	Adj Cur Pos Reprice Transfer Rate
F790	Cur Pos Runoff Balance
F795	Adj Cur Pos Runoff Balance
F800	Cur Pos Runoff Rate
F805	Adj Cur Pos Runoff Rate
F810	Cur Pos Runoff Transfer Rate
F815	Adj Cur Pos Runoff Transfer Rate

FS.FIN_ELEM	FE.DESC
F820	Total Maturity/Repricing
F830	Total Mat/Repricing Rate
F840	Total Mat/Repricing Transfer Rate
F900	Fee Income on Int. Bearing Acct.
F905	Fee Income Percent
F910	Tax Exempt Adjustment
F920	Other Interest Income Adjustment
F930	Federal Taxes
F935	Local Taxes
F940	Dividends
F1101	Ending Balance per Account
F1102	Ending Number of Accounts
F1103	Percent of Active Ending Accounts
F1104	Number of Active Accounts
F1105	Ending Balance Unearned Discount
F1106	Ending Gross Balance
F1141	Average Account Balance (FE1141)
F1142	Average Number of Accounts
F1143	Average Percent Active Accounts
F1144	Average Number of Active Accounts
F1341	Rollover Percent New Business
F1342	Net New Business (FE1342)
F1343	New Balance Per Account
F1344	Number of New Accounts
F1345	Percent of Active New Accounts
F1346	Number of Active New Accounts
F1794	Average Maturing Account Balance
F1796	Number of Maturing Accounts

FS.FIN_ELEM	FE.DESC
F1823	Maturing Balance per Account
F1824	Number of Maturing Active Accounts
F1825	Percent of Active Maturing Accounts
F1826	Number of Maturing Active Accounts_26
F2001	Static Gross Par Balance
F2002	Static Net Par Balance
F2003	Static Deferred Balance
F2004	Static Accrued Interest Balance
F2005	Static Net Rate
F2006	Static Transfer Rate
F2007	Static Remaining Term
F2008	Static Market Value
F2009	Static Duration
F10000	Statistical
C60	Current Position Beginning Balance
C80	Current Position Beginning Net Rate
C90	Current Position Beginning Transfer Rate
C100	Current Position End Balance
C120	Current Position Ending Net Rate
C130	Current Position Ending Transfer Rate
C140	Current Position Average Bal
C160	Current Position Average Net Rate
C170	Current Position Average Transfer Rate
C180	Current Position Prepay Runoff Positive
C181	Current Position Timing of Prepay Runoff Positive
C182	Current Position Prepay Runoff Negative
C183	Current Position Timing of Prepay Runoff Negative

FS.FIN_ELEM	FE.DESC
C190	Current Position Payment Runoff Positive
C191	Current Position Timing of Payment Runoff Positive
C192	Current Position Payment Runoff Negative
C193	Current Position Timing of Payment Runoff Negative
C195	Current Position Maturity Runoff Positive
C196	Current Position Timing of Maturity Runoff Positive
C197	Current Position Maturity Runoff Negative
C198	Current Position Timing of Maturity Runoff Negative
C210	Current Position Total Runoff Positive
C211	Current Position Timing of Total Runoff Positive
C212	Current Position Total Runoff Negative
C213	Current Position Timing of Total Runoff Negative
C230	Current Position Total Runoff Net Rate
C240	Current Position Total Runoff Transfer Rate
C250	Current Position Repricing Balance
C255	Current Position Repricing Balance At End
C280	Current Position Before Repricing Net Rate
C290	Current Position After Repricing Net Rate
C300	Current Position Before Reprice Transfer Rate
C310	Current Position After Reprice Transfer Rate
C330	Current Position Fully Indexed Net Rate
C430	Current Position Interest Cash Flow
C437	Current Position Interest Cash Flow T-Rate
C440	Current Position Interest Accrued
C450	Current Position Charge/Credit

FS.FIN_ELEM	FE.DESC
C500	Current Position WARM
C510	Current Position Annual Prepayment Rate
C515	Current Position Balance Before PrePay
C520	Current Position Deferred End Balance
C530	Current Position Deferred Average Balance
C540	Current Position Deferred Runoff
C790	Current Position Runoff Balance
N100	New Business Ending Balance
N120	New Business Ending Net Rate
N130	New Business Ending Transfer Rate
N140	New Business Average Balance
N160	New Business Average Net Rate
N170	New Business Average Transfer Rate
N171	TP Percent Spread
N180	New Business Prepay Runoff
N210	New Business Total Runoff
N230	New Business Total Runoff Net Rate
N235	New Business Prepay Runoff Net Rate
N240	New Business Total Runoff Transfer Rate
N245	New Business Prepay Runoff Transfer Rate
N250	New Business Repricing Balance
N255	New Business Repricing Balance At End
N280	New Business Before Repricing Net Rate
N290	New Business After Repricing Net Rate
N300	New Business Before Reprice Transfer Rate
N310	New Business After Reprice Transfer Rate
N395	Roll Add Spread
N420	New Business Interest

FS.FIN_ELEM	FE.DESC
N450	New Business Charge/Credit
N451	TP Spread Income
N790	New Business Runoff Balance
N1395	Net New Spread
W1	Temporary Weighting #1
W2	Temporary Weighting #2
W3	Temporary Weighting #3
W4	Temporary Weighting #4
W5	Temporary Weighting #5
W6	Temporary Weighting #6
W7	Temporary Weighting #7
W8	Temporary Weighting #8
W9	Temporary Weighting #9
W10	Temporary Weighting #10
W11	Temporary Weighting #11
W12	Temporary Weighting #12
W13	Temporary Weighting #13
W14	Temporary Weighting #14
W15	Temporary Weighting #15
W16	Temporary Weighting #16
W17	Temporary Weighting #17
W18	Temporary Weighting #18
W19	Temporary Weighting #19
W20	Temporary Weighting #20
W21	Temporary Weighting #21
W22	Temporary Weighting #22
W23	Temporary Weighting #23
W24	Temporary Weighting #24

FS.FIN_ELEM	FE.DESC
W25	Temporary Weighting #25
W26	Temporary Weighting #26
W27	Temporary Weighting #27
W28	Temporary Weighting #28
W29	Temporary Weighting #29
W30	Temporary Weighting #30
W31	Temporary Weighting #31
W32	Temporary Weighting #32
W33	Temporary Weighting #33
W34	Temporary Weighting #34
W35	Temporary Weighting #35
W36	Temporary Weighting #36
W37	Temporary Weighting #37
W38	Temporary Weighting #38
W39	Temporary Weighting #39
W40	Temporary Weighting #40
W41	Temporary Weighting #41
W42	Temporary Weighting #42
W43	Temporary Weighting #43
W44	Temporary Weighting #44
W45	Temporary Weighting #45
W46	Temporary Weighting #46
W47	Temporary Weighting #47
W48	Temporary Weighting #48
W49	Temporary Weighting #49
W50	Temporary Weighting #50
W51	Temporary Weighting #51
W52	Temporary Weighting #52

FS.FIN_ELEM	FE.DESC
W53	Temporary Weighting #53
W54	Temporary Weighting #54
W55	Temporary Weighting #55
W56	Temporary Weighting #56
W57	Temporary Weighting #57
W58	Temporary Weighting #58
W59	Temporary Weighting #59
W60	Temporary Weighting #60
W61	Temporary Weighting #61
W62	Temporary Weighting #62
W63	Temporary Weighting #63
W64	Temporary Weighting #64
W65	Temporary Weighting #65
W66	Temporary Weighting #66
W67	Temporary Weighting #67
W68	Temporary Weighting #68
W69	Temporary Weighting #69
W70	Temporary Weighting #70
W71	Temporary Weighting #71
W72	Temporary Weighting #72
W73	Temporary Weighting #73
W74	Temporary Weighting #74
W75	Temporary Weighting #75
W76	Temporary Weighting #76
W77	Temporary Weighting #77
W78	Temporary Weighting #78
W79	Temporary Weighting #79
W80	Temporary Weighting #80

FS.FIN_ELEM	FE.DESC
W81	Temporary Weighting #81
W82	Temporary Weighting #82
W83	Temporary Weighting #83
W84	Temporary Weighting #84
W85	Temporary Weighting #85
W86	Temporary Weighting #86
W87	Temporary Weighting #87
W88	Temporary Weighting #88
W89	Temporary Weighting #89
W90	Temporary Weighting #90
W91	Temporary Weighting #91
W92	Temporary Weighting #92
W93	Temporary Weighting #93
W94	Temporary Weighting #94
W95	Temporary Weighting #95
W96	Temporary Weighting #96
W97	Temporary Weighting #97
W98	Temporary Weighting #98
W99	Temporary Weighting #99
W100	Temporary Weighting #100
A420	Annualized Interest
A450	Annualized Charge/Credit

# **Sorted by the Financial Element Description**

FE.DESC	FS.FIN_ELEM
Accrued Interest Average Balance	F470
Accrued Interest Ending Balance	F460
Adj Cur Pos Reprice Balance	F765
Adj Cur Pos Reprice Rate	F775
Adj Cur Pos Reprice Transfer Rate	F785
Adj Cur Pos Runoff Balance	F795
Adj Cur Pos Runoff Rate	F805
Adj Cur Pos Runoff Transfer Rate	F815
After Reprice Transfer Rate	F310
After Repricing Gross Rate	F270
After Repricing Net Rate	F290
Annual Prepayment Rate	F510
Annualized Charge/Credit	A450
Annualized Interest	A420
Average Account Balance	F141
Average Account Balance (FE1141)	F1141
Average Bal	F140
Average Gross Rate	F150
Average Maturing Account Balance	F1794
Average Net Rate	F160
Average Number of Accounts	F1142
Average Number of Active Accounts	F1144
Average Percent Active Accounts	F1143
Average Percentage Active	F143
Average Rem Term Transfer Rate	F172
Average Total Balance	F142

FE.DESC	FS.FIN_ELEM
Average Transfer Rate	F170
Average Volume Total	F144
Balance Before PrePay	F515
Before Reprice Transfer Rate	F300
Before Repricing Gross Rate	F260
Before Repricing Net Rate	F280
Beginning Balance	F60
Beginning Gross Rate	F70
Beginning Net Rate	F80
Beginning Transfer Rate	F90
Charge/Credit	F450
Charge/Credit Rem Term	F452
Convexity	F730
Cur Pos After Reprice Rate	F770
Cur Pos After Reprice T-Rate	F780
Cur Pos Before Reprice Rate	F768
Cur Pos Before Reprice T-Rate	F778
Cur Pos Reprice Balance	F760
Cur Pos Runoff Balance	F790
Cur Pos Runoff Rate	F800
Cur Pos Runoff Transfer Rate	F810
Current Position After Reprice Transfer Rate	C310
Current Position After Repricing Net Rate	C290
Current Position Annual Prepayment Rate	C510
Current Position Average Bal	C140
Current Position Average Net Rate	C160
Current Position Average Transfer Rate	C170
Current Position Balance Before PrePay	C515

FE.DESC	FS.FIN_ELEM
Current Position Before Reprice Transfer Rate	C300
Current Position Before Repricing Net Rate	C280
Current Position Beginning Balance	C60
Current Position Beginning Net Rate	C80
Current Position Beginning Transfer Rate	C90
Current Position Charge/Credit	C450
Current Position Deferred Average Balance	C530
Current Position Deferred End Balance	C520
Current Position Deferred Runoff	C540
Current Position End Balance	C100
Current Position Ending Net Rate	C120
Current Position Ending Transfer Rate	C130
Current Position Fully Indexed Net Rate	C330
Current Position Interest Accrued	C440
Current Position Interest Cash Flow	C430
Current Position Interest Cash Flow T-Rate	C437
Current Position Maturity Runoff Negative	C197
Current Position Maturity Runoff Positive	C195
Current Position Payment Runoff Negative	C192
Current Position Payment Runoff Positive	C190
Current Position Prepay Runoff Negative	C182
Current Position Prepay Runoff Positive	C180
Current Position Repricing Balance	C250
Current Position Repricing Balance At End	C255
Current Position Runoff Balance	C790
Current Position Timing of Maturity Runoff Negative	C198
Current Position Timing of Maturity Runoff Positive	C196

FE.DESC	FS.FIN_ELEM
Current Position Timing of Payment Runoff Negative	C193
Current Position Timing of Payment Runoff Positive	C191
Current Position Timing of Prepay Runoff Negative	C183
Current Position Timing of Prepay Runoff Positive	C181
Current Position Timing of Total Runoff Negative	C213
Current Position Timing of Total Runoff Positive	C211
Current Position Total Runoff Negative	C212
Current Position Total Runoff Net Rate	C230
Current Position Total Runoff Positive	C210
Current Position Total Runoff Transfer Rate	C240
Current Position WARM	C500
Deferred Average Balance	F530
Deferred End Balance	F520
Deferred Runoff	F540
Discount Rate	F490
Dividends	F940
Duration	F720
End Balance	F100
Ending Balance per Account	F1101
Ending Balance Unearned Discount	F1105
Ending Gross Balance	F1106
Ending Gross Rate	F110
Ending Net Rate	F120
Ending Number of Accounts	F1102
Ending Transfer Rate	F130
Federal Taxes	F930

FE.DESC	FS.FIN_ELEM
Fee Income on Int. Bearing Acct.	F900
Fee Income Percent	F905
Fully Indexed Gross Rate	F320
Fully Indexed Net Rate	F330
Gap Accrued Interest Gross	F674
Gap Accrued Interest Net	F675
Gap Accrued Interest Transfer	F676
Gap Deferred Runoff	F663
Gap Interest Cash Flow Gross	F671
Gap Interest Cash Flow Net	F672
Gap Interest Cash Flow Transfer	F673
Gap Interest Credited	F677
Gap Principal Runoff	F661
Gap Repricing Runoff	F662
Gap Runoff	F660
Gap Runoff Gross Rate	F680
Gap Runoff Net Rate	F690
Gap Runoff Term	F670
Gap Runoff Transfer Rate	F700
Interest	F420
Interest Accrued	F440
Interest Accrued Gross	F445
Interest Amount Gross	F425
Interest Cash Flow	F430
Interest Cash Flow Gross	F435
Interest Cash Flow T-Rate	F437
Interest Credited	F480
Life Cap Balance	F580

FE.DESC	FS.FIN_ELEM
Life Cap Effect Amount	F600
Life Cap Effect Rate	F590
Local Taxes	F935
Market Value	F710
Maturing Balance per Account	F1823
Maturity Runoff Negative	F197
Maturity Runoff Positive	F195
Neg Am Balance	F640
Neg Am Interest	F650
Net New Business	F342
Net New Business (FE1342)	F1342
Net New Spread	N1395
New Add Balance	F340
New Add Gross Rate	F350
New Add Net Rate	F360
New Add Spread	F375
New Add Transfer Rate	F370
New Balance Per Account	F1343
New Business After Reprice Transfer Rate	N310
New Business After Repricing Net Rate	N290
New Business Average Balance	N140
New Business Average Net Rate	N160
New Business Average Transfer Rate	N170
New Business Before Reprice Transfer Rate	N300
New Business Before Repricing Net Rate	N280
New Business Charge/Credit	N450
New Business Ending Balance	N100
New Business Ending Net Rate	N120

FE.DESC	FS.FIN_ELEM
New Business Ending Transfer Rate	N130
New Business Interest	N420
New Business Prepay Runoff	N180
New Business Prepay Runoff Net Rate	N235
New Business Prepay Runoff Transfer Rate	N245
New Business Repricing Balance	N250
New Business Repricing Balance At End	N255
New Business Runoff Balance	N790
New Business Total Runoff	N210
New Business Total Runoff Net Rate	N230
New Business Total Runoff Transfer Rate	N240
New Gross Balance	F740
New Net Balance	F750
Non Interest Expense	F457
Non Interest Income	F455
Number of Active Accounts	F1104
Number of Active New Accounts	F1346
Number of Maturing Accounts	F1796
Number of Maturing Active Accounts	F1824
Number of Maturing Active Accounts_26	F1826
Number of New Accounts	F1344
Other Interest Income Adjustment	F920
Payment Runoff Negative	F192
Payment Runoff Positive	F190
Percent of Active Ending Accounts	F1103
Percent of Active Maturing Accounts	F1825
Percent of Active New Accounts	F1345
Period Cap Balance	F550

FE.DESC	FS.FIN_ELEM
Period Cap Effect Amount	F570
Period Cap Effect Rate	F560
Prepay Runoff Negative	F182
Prepay Runoff Net Rate	F235
Prepay Runoff Positive	F180
Prepay Runoff Transfer Rate	F245
Repricing Balance	F250
Repricing Balance At End	F255
Roll Add Balance	F380
Roll Add Gross Rate	F390
Roll Add Net Rate	F400
Roll Add Spread	N395
Roll Add Transfer Rate	F410
Rollover Percent New Business	F1341
Rollover Percentage	F341
Static Accrued Interest Balance	F2004
Static Deferred Balance	F2003
Static Duration	F2009
Static Gross Par Balance	F2001
Static Market Value	F2008
Static Net Par Balance	F2002
Static Net Rate	F2005
Static Remaining Term	F2007
Static Transfer Rate	F2006
Statistical	F10000
Tax Exempt Adjustment	F910
Tease Balance	F610
Tease Effect Amount	F630

FE.DESC	FS.FIN_ELEM
Tease Effect Rate	F620
Temporary Weighting #01	W1
Temporary Weighting #02	W2
Temporary Weighting #03	W3
Temporary Weighting #04	W4
Temporary Weighting #05	W5
Temporary Weighting #06	W6
Temporary Weighting #07	W7
Temporary Weighting #08	W8
Temporary Weighting #09	W9
Temporary Weighting #10	W10
Temporary Weighting #100	W100
Temporary Weighting #11	W11
Temporary Weighting #12	W12
Temporary Weighting #13	W13
Temporary Weighting #14	W14
Temporary Weighting #15	W15
Temporary Weighting #16	W16
Temporary Weighting #17	W17
Temporary Weighting #18	W18
Temporary Weighting #19	W19
Temporary Weighting #20	W20
Temporary Weighting #21	W21
Temporary Weighting #22	W22
Temporary Weighting #23	W23
Temporary Weighting #24	W24
Temporary Weighting #25	W25
Temporary Weighting #26	W26

FE.DESC	FS.FIN_ELEM
Temporary Weighting #27	W27
Temporary Weighting #28	W28
Temporary Weighting #29	W29
Temporary Weighting #30	W30
Temporary Weighting #31	W31
Temporary Weighting #32	W32
Temporary Weighting #33	W33
Temporary Weighting #34	W34
Temporary Weighting #35	W35
Temporary Weighting #36	W36
Temporary Weighting #37	W37
Temporary Weighting #38	W38
Temporary Weighting #39	W39
Temporary Weighting #40	W40
Temporary Weighting #41	W41
Temporary Weighting #42	W42
Temporary Weighting #43	W43
Temporary Weighting #44	W44
Temporary Weighting #45	W45
Temporary Weighting #46	W46
Temporary Weighting #47	W47
Temporary Weighting #48	W48
Temporary Weighting #49	W49
Temporary Weighting #50	W50
Temporary Weighting #51	W51
Temporary Weighting #52	W52
Temporary Weighting #53	W53
Temporary Weighting #54	W54

FE.DESC	FS.FIN_ELEM
Temporary Weighting #55	W55
Temporary Weighting #56	W56
Temporary Weighting #57	W57
Temporary Weighting #58	W58
Temporary Weighting #59	W59
Temporary Weighting #60	W60
Temporary Weighting #61	W61
Temporary Weighting #62	W62
Temporary Weighting #63	W63
Temporary Weighting #64	W64
Temporary Weighting #65	W65
Temporary Weighting #66	W66
Temporary Weighting #67	W67
Temporary Weighting #68	W68
Temporary Weighting #69	W69
Temporary Weighting #70	W70
Temporary Weighting #71	W71
Temporary Weighting #72	W72
Temporary Weighting #73	W73
Temporary Weighting #74	W74
Temporary Weighting #75	W75
Temporary Weighting #76	W76
Temporary Weighting #77	W77
Temporary Weighting #78	W78
Temporary Weighting #79	W79
Temporary Weighting #80	W80
Temporary Weighting #81	W81
Temporary Weighting #82	W82

FE.DESC	FS.FIN_ELEM
Temporary Weighting #83	W83
Temporary Weighting #84	W84
Temporary Weighting #85	W85
Temporary Weighting #86	W86
Temporary Weighting #87	W87
Temporary Weighting #88	W88
Temporary Weighting #89	W89
Temporary Weighting #90	W90
Temporary Weighting #91	W91
Temporary Weighting #92	W92
Temporary Weighting #93	W93
Temporary Weighting #94	W94
Temporary Weighting #95	W95
Temporary Weighting #96	W96
Temporary Weighting #97	W97
Temporary Weighting #98	W98
Temporary Weighting #99	W99
Timing of Maturity Runoff Negative	F198
Timing of Maturity Runoff Positive	F196
Timing of Payment Runoff Negative	F193
Timing of Payment Runoff Positive	F191
Timing of Prepay Runoff Negative	F183
Timing of Prepay Runoff Positive	F181
Timing of Total Runoff Negative	F213
Timing of Total Runoff Positive	F211
Total Mat/Repricing Rate	F830
Total Mat/Repricing Transfer Rate	F840
Total Maturity/Repricing	F820

FE.DESC	FS.FIN_ELEM
Total Runoff Gross Rate	F220
Total Runoff Negative	F212
Total Runoff Net Rate	F230
Total Runoff Positive	F210
Total Runoff Transfer Rate	F240
TP Percent Spread	N171
TP Spread Income	N451
WARM	F500

# **Cash Flow Calculations**

The Budgeting & Planning application is designed primarily to meet the cash flow modeling needs of financial institutions. The primary source of a financial institution's profitability is its financial instruments. Therefore, the ability to forecast run off and repricing becomes paramount in determining profitability.

Modeling financial instruments is typically referred to as cash flow forecasting, as opposed to the forecasting of total portfolio balances. Cash flow forecasts model the maturities and repricing characteristics of both existing business as well as anticipated new business.

The cash flow engine for the Budgeting & Planning application is designed to meet the following objectives:

- Maintain a thin client approach, which means that data-intensive calculations are performed within the Express stored procedure language
- Enable end users to customize the cash flow routines that have been provided to accommodate unique requirements
- Design the application's architecture in such a way that the user interface is separated from the engines that calculate pro forma financial results

Cash flow forecasting within the Budgeting & Planning application consists of the following two components:

- Cash flow routines that use the Express stored procedure language
- A user interface that simplifies your interaction with these routines

## **Basic Cash Flow Calculations**

This section provides detailed explanations of the basic cash flow calculations used in the Budgeting & Planning application. The following cash flow types are documented:

- **Fixed Bullet Maturity**
- Fixed-rate Amortizing
- Amortizing Repricing (adjustable-rate amortizing)
- Non-interest Income
- Non-interest Expense
- Non-term
- Non-rate Related
- **Rollovers**
- Statistical Data

This appendix also provides a detailed explanation of how current position run-off is calculated using the actual maturity date of the instrument, rather than a mid-period average, to determine the cash flow. This is a change from previous versions of the Budgeting & Planning application and is discussed in the next section.

# **Changes in Calculating Runoff**

Previous releases of the Budgeting & Planning application assumed a mid-period timing event for both maturing and newly booked loans. This caused the results of the cash flow calculations to be inconsistent with cash flow calculations from Risk Manager, which uses the actual date on which the financial instrument either paid off or was booked. With this release of the Budgeting & Planning application, results are computed in such a way as to more closely correspond to Risk Manager runoff calculations.

### Cash Flow Calculations Used in Previous Releases

In prior releases the calculation of interest, average balance, and average rate used the following formulas:

Interest = Beginning Balance \* Beginning Rate / Annualization Factor+

> New Business \* New Business Rate \* .5 / Annualization Factor- Current Position Maturities \* Current Position Maturing Rate\* .5 / Annualization Factor - New Business Maturities\* New Business Maturing Rate \* .5/Annualization

Factor

Average Balance = (Beginning Balance + Ending Balance) / 2

Average Rate = (Interest \* Annualization factor) / Average Balance

These formulas were based on the following factors:

Annualization Based on the accrual method used. For example, the number

Factor of days in month/number of days in year represented an

actual/actual accrual method.

0.5 Time weighting factor used to reflect maturities and new

business bookings in the middle of the month.

Transfer pricing charges and credits and average transfer rates were also determined using the approach outlined above. The only difference was substituting transfer rates for interest rates, where appropriate.

However, the cash flow engines used by Risk Manager compute interest, charges and credits, and average balance for the current position maturities, using the day of the month on which the instrument matures rather than employing a mid-period maturity for all instruments, regardless of the actual date the instrument is paid off. Therefore, unless an instrument matured on the 15th of the month, there was an inherent inconsistency in the cash flow results between the method used in the Budgeting & Planning application and the method used in Risk Manager.

#### Cash Flow Calculations Used for this Release

In this release of the Budgeting & Planning application, all of the current position projected results generated by Risk Manager are pulled over and loaded into Budgeting & Planning. The actual maturity, payment, and repricing timing factors for all of the instruments for your organization are included in the interest, charges and credits, and ending and average balance amounts pulled into Budgeting & Planning.

The current position results generated by Risk Manager are then combined with the new business assumptions entered into the Budgeting & Planning application to determine the total results.

#### Storing New Business Runoff Data

All of the projected principal balance runoff and repricing activity for new business volumes, along with associated rate and transfer rate information, is stored in the Incremental Runoff variable. Cash flow calculations write the projected values to this variable with data storage corresponding to the month originated and mix\_ breakout level. The calculations then perform relevant balance summations and calculate balance-weighted average rates and transfer rates using the information stored in the Incremental Runoff variable. They then write these values to the appropriate financial elements in the Financial Data (FS.FIN\_DATA) variable. The use of this approach allows new business calculations performed by the cash flow engine to be limited to only those time periods where new business balances have been input or derived. This avoids the need to re-calculate projections for new business values previously processed.

References in this guide to any of the financial elements listed below generally imply that the balance, rate, or transfer rate information is being written to or accessed from the Incremental Runoff variable:

- **New Business Runoff**
- New Business Runoff Rate
- **New Business Runoff Transfer Rate**
- **New Business Repricing Balance**
- New Business Rate Before Repricing
- New Business Rate After Repricing
- New Business Transfer Rate Before Repricing
- New Business Transfer Rate After Repricing

#### **New Business Volumes**

For new business volumes, the calculation of interest, average balance, average rate, charges and credits and average transfer rate is computed as follows:

NB Interest = ((NB Beginning Balance \* NB Beginning Rate) - (NB Runoff \* NB Runoff Rate \* Timing Factor) + (New Business \* New Business Rate \* Timing Factor))

NB AvgBal = ((NB Beginning Balance - (NB Runoff \* Timing Factor) + (New Business \* Timing Factor))

NB AvgRt = NB Interest \* Annualization Factor / NB AvgBal

NB Chg/Cr = ((NB Beginning Balance \* NB Beginning Transfer Rate - (NB Runoff \* NB Runoff Transfer Rate \* Timing Factor) + (New Business \* New Business Transfer Rate \* Timing Factor))

NB AvgTrt = NB Chg/Cr \* Annualization Factor / NB AvgBal

The total account results for interest, average balance, average rate, charges and credits and average transfer rate are calculated as follows:

Interest = CP Interest + NB Interest

AvgBal = CP AvgBal + NB AvgBal

AvgRt = Interest \* Annualization Factor / AvgBal

Chg/Credit = CP Chg/Cr + NB Chg/Cr

AvgTrt = Chg/Credit \* Annualization Factor / AvgBal

where:

CP Interest = Current Position interest from Risk Manager

CP AvgBal = Current Position average balance from Risk Manager

CP Chg/Cr = Current Position charge/credit from Risk Manager

Note that NB AvgBal, NB AvgRt and NB AvgTrt are not currently displayed in the interface or written to the database.

These calculations break down individual accounts into the following three 'virtual' instruments:

'Virtual' Instrument	Business Approach
Current Position Results	Pro forma financial results, generated by Risk Manager, for the current position maturity and repricing activity, are used.
New Business	A new business timing factor is input by your organization. This section presents examples of how the calculations arrive at results. For the purposes of these examples, it is assumed that new business is booked, on average, at the middle of the month.
New Business Maturities	A new business timing factor is input by your organization. As with the booking of new business, these examples assume a maturity at the middle of the month.

Rate and transfer rate information generated by Risk Manager is also loaded into Budgeting & Planning and is available for display purposes, to show how the current position results are generated. These are also used in certain types of calculations.

#### Changes in the Cash Flow Output

In previous versions of the Budgeting & Planning application, the cash flow output generated by Risk Manager was assigned to financial elements created specifically for Budgeting & Planning. In addition, you had to choose the Budgeting Cash Flows option under Processing Types in the Risk Manager Process ID.

With this release, rather than using financial elements unique to Budgeting & Planning, the cash flow outputs are written to financial elements that are changed slightly to conform to the naming conventions imposed by Oracle Express. For the Risk Manager cash flow output the appropriate financial elements now have the character "C" added to the beginning of each financial element. The relationship to the OFSA financial element is, in virtually all cases, one-to-one. With this change the Budgeting Cash Flows option is no longer necessary. When you process your cash flows you should now select the option called Scenario based option.

# **Bullet Maturity (FS.BULLET.FIXED)**

A bullet maturity is a financial instrument where the principal balance matures at a specific point in the future. A Certificate of Deposit is an example of a bullet maturity instrument.

This section presents, in detail, the methodologies used to calculate cash flows for this type of instrument.

Cash flow calculations include the maturities of current position (those instruments currently on the books), new business and the forecasted maturity of new business (runoff). The timing of the new business maturities is stored in the Maturity Mix variable. See the section entitled "Maturity Mix Data Model for New Business" in Chapter 2, "The Data Model" for more information on this variable.

### Bullet Maturity Cash Flow Example

In this example Certificates of Deposit are used to model cash flow calculations.

This provides detailed formulas and examples to calculate the following results, which are required for bullet maturity instruments:

- Current position results
- **Ending balance**
- Average balance
- Interest and transfer charges and credits
- New business beginning balance
- New business runoff
- New business interest

### Parameters and Assumptions Used in this Example

The following parameters and assumptions are provided for this example:

- The financial institution is offering Certificates of Deposit with one, two and three-month maturities.
- New business is forecasted at \$800 in each time period, which, for this example is a month.
- New business is booked equally through the course of a month, therefore the time period weighting factor used is 50%.
- The spread below the transfer rate is forecasted at 2%.
- The annualization method is: Number of days in the month/365.
- Customer activity, based on prior experience, indicates that, for the first month customer preference is spread equally across all maturities. However, in the second and third months of the forecast period, customers select only one and two month maturities.

This customer preference is displayed in the following table:

Term	January	February	March
1 Month	33%	50%	50%
2 Month	34%	50%	50%
3 Month	33%		

### Current Position Results Generated by Risk Manager for this Example

The following tables show this account's current position and the results of Risk Manager processing against that data. All of the information in the tables is produced by Risk Manager and brought into Express using the data movement routines described in the section entitled "Data Movement Routines" in Chapter 3, "Administering the Application".

This table displays the current position maturities for this example:

	Balance	Rate	Transfer Rate	Ending Balance
Beginning Balance	1000	6.50%	7.78%	
Maturities in January	700	6.00%	7.50%	300
Maturities in February	200	7.00%	8.50%	100
Maturities in March	100	9.00%	8.25%	0

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Month	Average Balance	Interest	Charge/ Credit	Beginning Rate	Ending Rate	Average Rate	Beginning Transfer Rate	Ending Transfer Rate	Average Transfer Rate
January	481	2.873	3.295	6.50%	7.67%	7.04%	7.78%	8.42%	8.07%
February	248	1.570	1.598	7.67%	9.00%	8.25%	8.42%	8.25%	8.40%
March	51	0.390	0.358	9.00%	0.00%	9.00%	8.25%	0.00%	8.25%

### **Ending Balance Computations for the Entire Account**

Calculating the ending balance for the entire account is shown in the formula below.

Ending Balance = Prior Period EndBal + New Business - CP Runoff - NB Runoff. where:

CP Runoff = The projected current position runoff balance from Risk Manager data transfer.

New Business = Input value

New Business Runoff = Sum of (New Business Runoff from the Incremental Runoff variable)

The calculation of the new business ending balance component of total ending balance is as follows:

NB EndBal = Accumulated New Business - Accumulated New Business Runoff

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Month	New Business Beginning Balance	+ New Business	- New Business Runoff	= New Business Ending Balance	+ Current Position Ending Balance	= Total Ending Balance
January	0	800	0	800	300	1100
February	800	800	264 = (800*.33)	1336 = ((800 + (800 - 264))	100	1436
March	1336	800	672 = (800 *.34) + (800 * .50)	1464 = ((800 + (1336 - 672))	0	1464

#### **Average Balance Computations**

The formula below shows how average balances are calculated.

Average Balance = CP AvgBal + NB AvgBal

where:

CP AvgBal = The projected current position average balance from RM data transfer

NB AvgBal = (New Business Beginning Balance + (New Business - New Business Runoff) \* New Business Timing Factor)

New Business Beginning Balance = Prior period ending balance.

New Business Runoff = Sum of New Business Runoff from the Incremental Runoff variable

New Business Timing Factor = User input value indicating when new business is typically booked during the course of a month.

New Business: Input assumption.

Note that NB AvgBal is not currently displayed in the interface nor written to the database.

The average balance ca	lculations for this avan	nla ara chown in	the following table:
The average balance ca	iculations for this exam	ipic arc shown in	the following table.

Month	New Business Beginning Balance	New Business Runoff Average	New Business Average	Total New Business Average Balance	Current Position Average Balance	Total Average Balance
January	0	0	400=800*.5	400=800*.5	481	881
February	800	132=264*(0.5)	400=800*.5	1068 = 800 - 132 + 400	248	1316
March	1336	336=672*(0.5)	400=800*.5	1400 = 1336 - 336 + 400	51	1451

### Computing Interest and Transfer Charges and Credits

After the current position, ending and average balances have been calculated the next step is to compute interest and transfer credits and charges for the account.

To calculate interest on new business, you first need to select the appropriate transfer rate to assign to this balance. This calculation requires information from the rate forecast yield curve and the maturity mix variable.

In this example, the transfer rate data, which resides in the Interest Rate variable, is assigned to the product in the following manner:

Transfer Rates for:	January	February	March
1 month	6.00%	6.50%	7.25%
3 months	7.00%	7.50%	8.25%

In this example, the two month term is missing. The transfer rate is assigned to new business based on the interest rate data and maturity mix information that is available. In this example the instrument has a two month term, however, a two month term does not exist on the transfer rate curve, therefore the two month transfer rate is interpolated, using the straight line method.

The formula below is used to determine the interpolated transfer rate:

Interpolated rate = ((Rate at later term - Rate at earliest term) / (later term - earlier term)) + rate at earliest term.

In this example, the transfer rate for January is:

$$((7.00\% - 6.00\%) / (3 - 1)) + 6.00 = 1.00\% / 2 + 6.00\% = 6.50\%$$

The transfer rates for all terms is:

Transfer Rates	January	February	March
1 month	6.00%	6.50%	7.25%
2 months	6.50%	7.00%	7.75%
3 Months	7.00%	7.50%	8.25%

From this information the transfer rate on new business for each month can be derived. This is done by weighting the rate on the interest rate curve by the maturity mix percentage in the Maturity Mix variable.

In this example the following results are calculated:

January = 
$$(6.00 * .33) + (6.50 * .34) + (7.00 * .33) = 6.50\%$$
  
February =  $(6.50 * .50) + (7.00 * .50) = 6.75\%$ 

The interest rate on new business, for assets and liabilities or capital, is computed as follows:

For accounts with the attribute of asset:

Interest Rate on New Business = Transfer rate on New Business + Spread on New **Business** 

For accounts with the attribute of liability or capital:

Interest Rate on New Business = Transfer rate on New Business - Spread on New **Business** 

Assuming a spread to the transfer rate of -2.00% for all terms, the new business interest rates in this example are displayed in the following table:

Transfer Rates For:	January	February	March	
1 Month	4.00%	4.50%	5.25%	
2 Months	4.50%	5.00%	5.75%	
3 Months	5.00%	5.50%	6.25%	

These calculations enable you to compute interest, transfer rate credits, and margins for this account.

Interest is calculated according to the following formula:

Total Interest for the time period = Current Position Interest + New Business Interest

where.

Current Position Interest = Interest on Current Position from Risk Manager

New Business Interest = ((New Business Beginning Balance \* New Business Beginning Rate/100 - (New Business Runoff \* New Business Runoff Rate/100 \* Timing Factor) + (New Business \* New Business Rate/100 \* Timing Factor)) \* **Annualization Factor** 

New Business Beginning Balance = Prior Period New Business Ending Balance

New Business Beginning Rate = Prior Period New Business Ending Rate

New Business Ending Rate = ((New Business Beginning Balance \* New Business Beginning Rate) - (New Business Runoff \* New Business Runoff Rate) + (New Business \* New Business Rate)) / New Business Ending Balance

In the above formula, the New Business Runoff rate should be the point on the yield curve for the time period that corresponds to the term of the maturity. For example, the portion that is maturing one month from when that portion was put on the

books should receive the rate corresponding to the one month term in the month of origination.

For this example, the interest calculations are as follows:

	New Business Beginning Balance	+ New Business Interest	- New Business Runoff	+ Current Position Interest	Total Interest
January	0.000	1.529	0.000	2.873	4.401
February	1.227	1.458	0.405	1.570	3.850
March	2.439	1.868	1.284	0.390	3.413

The following tables show the interest calculations for the following:

- New business beginning balance
- New business runoff
- New business interest

**New Business Beginning Balance** 

	New Business Beginning Balance	New Business Beginning Rate	Annualization Factor	Timing Factor	New Business Beginning Balance Interest		
January	0	0%	8.49%	50%	\$	0.000	
February	800	4.00%	7.67%	50%	\$	1.227	
March	1336	4.30%=(536*4%)+ (800*4.5%)/1336	8.49%	50%	\$	2.439	

#### **New Business Runoff**

	New Business Runoff Balance	New Business Runoff Rate	Annualization Factor	1 - Timing Factor	New Business Runoff Interest
January	0	0	8.49% =31/365	50%	0
February	264	4.00%	7.67%	50%	\$ .405
March	672 = 272 + 400	4.50% = (272*.045)+(400*.045) /672	8.49%	50%	\$ 1.284

#### **New Business Interest**

	New Business	New Business Rate	Annualization Factor	Timing Factor	New Business Interest		
January	800	4.00%	8.49%	50%	\$	1.529	
February	800	4.50%	7.67%	50%	\$	1.458	
March	800	5.00%	8.49%	50%	\$	1.868	

# Fixed-Rate Amortizing (FS.AMORT.FIXED)

A fixed-rate amortizing instrument matures new business according to the principal portion of a level payment amount. An auto loan is an example of this type of instrument.

The unique challenge for this kind of instrument is the derivation of the transfer rate to be assigned to new business. If the rate on new business is computed as:

New Business rate = The transfer rate + spread and.

The transfer rate is computed based on the level payment, which in turn requires the new business rate to derive it (Payment = f(balance, rate, term)) then circular logic exists.

The transfer pricing calculations in the Budgeting & Planning application use an iterative methodology that performs the calculations for the transfer rate twice to arrive at an equilibrium transfer rate.

The Budgeting & Planning application supports the following transfer rate methodologies:

- Zero Coupon
- **Duration Based**
- Weighted Average Term

### Fixed-Rate Amortizing with Balloon

An amortizing-balloon instrument behaves the same as a regular fixed-rate amortizing instrument, except that instrument amortization is calculated using an amortization term that is longer than the contractual term to maturity. The balance remaining at maturity represents a 'balloon payment' due in lump sum at the maturity date of the instrument. You can use this functionality by entering an Amortization Term in the Maturity Mix variable.

The initial transfer rate for this instrument uses the same iterative methodology as the fixed-rate amortizing instrument. The transfer rate for the remaining balance and interest cash flow at the balloon term is the corresponding transfer rate for that term on the transfer pricing yield curve.

## Fixed-Rate Amortizing with Residual Value

With a residual value instrument, a specified portion of the principal balance amortizes over the term of the loan and the remaining, or residual, portion matures at the end of the loan. This instrument requires that your end user input a % residual value in the Maturity Mix variable. Once this value is input, the instrument behaves like a standard, fixed-rate amortizing instrument for the non-residual portion of the principal and a bullet maturity for the residual portion of the principal. A lease is an example of a residual instrument.

# **Amortizing-Repricing**

An amortizing-repricing instrument is similar to a fixed-rate amortizing instrument except that, at contractually specified intervals during the instrument's life, the remaining outstanding balance (the non-matured portion) reprices, based on the current market rate.

At repricing, the rate is calculated as follows:

Transfer rate at repricing period + spread at loan origination

The initial transfer rate uses the same iterative process used to calculate the transfer rate for fixed-rate amortizing instruments.

For amortizing repricing accounts the following calculations are used:

New Business Interest = (((New Business Beginning Balance \* New Business Beginning Rate/100) + ((New Business \* New Business Rate/100) \* Timing Factor) -((New Business Runoff \* New Business Runoff Rate/100) \* Timing Factor) + ((New Business Repricing Balance \* ((New Business Rate After Repricing - New Business Rate Before Repricing)/100)) \* Timing Factor) \* Annualization Factor

New Business Charge/Credit = (((New Business Beginning Balance \* New Business Beginning Transfer Rate/100) + ((New Business \* New Business Transfer Rate/100) \* Timing Factor) - ((New Business Runoff \* New Business Runoff Transfer Rate/100) \* Timing Factor) + ((New Business Repricing Balance \* (New Business Transfer Rate After Repricing - New Business Transfer Rate Before Repricing)/100)) \* Timing Factor) \* Annualization Factor

New Business Ending Rate = ((New Business Beginning Balance \* New Business Beginning Rate) + (New Business \* New Business Rate) - (New Business Runoff \* New Business Runoff Rate) + (New Business Repricing Balance \* (New Business Rate After Repricing - New Business Rate Before Repricing))) / (Prior Period New Business Ending Balance + New Business - New Business Runoff)

New Business Ending Transfer Rate = ((New Business Beginning Balance \* New Business Beginning Transfer Rate) + (New Business \* New Business Transfer Rate) -(New Business Runoff \* New Business Runoff Transfer Rate) + (New Business Repricing Balance \* (New Business Transfer Rate After Repricing - New Business Transfer Rate Before Repricing)) / (Prior Period New Business Ending Balance + New Business - New Business Runoff)

## Caps and Floors

Instruments with interest rate caps and/or floors are repricing instruments whose rate changes cannot exceed a specified, contractual range. An instrument can have two types of caps and/or floors.

### Periodic Caps and Floors

The rate cannot change more than a specified range at any repricing point. For example, the rate change can not exceed 2%, either upwards or downwards, for any repricing event.

You can use this functionality by entering values for the following two characteristics in the Maturity Mix variable:

- RATE.INCREASE.PERIOD
- RATE.DECREASE.PERIOD

### Lifetime Caps and Floors

A lifetime cap or floor is the absolute upper and lower limit, beyond which an interest rate cannot go during the life of the instrument. It can be expressed as either a maximum lifetime change from the initial rate or as an absolute ceiling or floor. You can use this functionality by entering values for the following characteristics in the Maturity Mix variable:

- RATE.INCREASE.LIFE
- RATE.DECREASE.LIFE
- RATE.CAP.LIFE
- RATE.FLOOR.LIFE

#### **Teaser Rates**

An instrument with a teaser rate is a repricing instrument whose introductory rate is below market rates. An adjustable rate mortgage (ARM) often has a teaser rates attached.

This instrument behaves like a repricing instrument with the exception that the initial rate on new business is reduced by a TEASER.DISCOUNT percentage input into the Maturity Mix variable. Subsequent repricing of the instrument occurs at market rates when the instrument is scheduled to be repriced, subject to the application of any caps and/or floors, as described the section entitled "Caps and Floors," in this appendix.

### Non-Term

A non-term instrument has neither a stated maturity nor a predictable cash flow. Passbook savings accounts and credit cards are examples of non-term instruments because a customer can withdraw funds from the passbook account or pay off a credit card balance at any time, without contractual limitations on this activity.

Cash flow modeling for such instruments is irrelevant because the cash flows are unpredictable. For these types of instruments no differentiation is made between current account balances and new business. The entire portfolio receives the same interest rate.

These characteristics make rate computation easy. The calculation is as follows:

Rate = Transfer Rate +/- Spread

where.

the spread is added for accounts with an attribute of asset, and subtracted for accounts with an attribute of liability.

Interest = Average Rate/100 \* Average Balance \* Annualization Factor

Transfer Charge or Credit = Average Balance \* Average Transfer Rate/100 \* Annualization Factor

If ending balance is input, the average balance is derived from the Beginning and Ending Balance and the timing factor, calculated as follows:

Average Balance = (Prior Period Ending Balance \* (1-Timing Factor)) + (Ending Balance \* Timing factor)

If average balance is input, the ending balance is calculated as follows:

Ending Balance = (Average Balance - Prior Period Ending Balance \* (1-Timing Factor))/Timing Factor

A timing factor of 0.5 achieves the average balance calculation.

### Rollover Behavior

You can model the cash flow characteristics of a fixed-rate, bullet instrument at a further level of detail by distinguishing between new business from new customers and new business from existing customers who are rolling their matured balances into the same product. This approach is common when modeling Certificates of Deposit.

The computations that reflect rollover behavior are identical to a bullet maturity instrument, with the exception that new business input is broken into several components.

This is shown in the following calculation:

Total New Business = New Customer Business + Rollovers where.

Rollovers = Total Maturing Balance \* Rollover Percent New Business

The end user inputs Net New Business, the Rollover Percent New Business, the Net New Spread and the Roll Add Spread

The additional calculations associated with rollovers are:

Total New Business = Net New Business + Rolled Amount

Total New Add Spread = ((Net New Business \* Net New Spread) + (Rolled Amount \* Roll Add Spread)) / (Net New Business + Rolled Amount)

where

Rolled Amount = (CP Runoff + New Business Runoff) \* Rollover Percent New Business

Net New Business = Input Amount

Net New Spread = Input Amount

Rollover Percent New Business = Input Amount

Roll Add Spread = Input Amount

### Non-Rate Related Balances

Non-rate related assets and liabilities are the non-financial instrument balances on your balance sheet. While cash flow modeling does not necessarily pertain to these balance sheet items they still need to have transfer pricing charges and credits generated. The transfer rate assigned to this type of balance is not a yield curve driven amount but a single rate for any time period (for example, the 3-month weighted average of the 3-month transfer rate).

The transfer pricing charge or credit is calculated as follows:

Transfer Charge or Credit = Average Balance \* Average Transfer Rate \* Annualization Factor

Ending and Average Balance calculations are the same as defined for non-term instruments.

# Other Calculations

The following non-rate related calculations are addressed in this section:

- Loan Fees
- Non-interest Expense
- Non-interest Income
- Number of Accounts
- Statistical Data
- Tax equivalency

### Loan Fees

Accounting practices on certain financial instruments (most commonly mortgage loans) require that loan fees paid by the customer are recognized in the same way as interest on the loan. In other words, while the customer pays cash 'points' when the loan is originated, the financial institution must recognize these points over the life of the loan.

To have the cash flow calculations include the generation of a fee income amount, input an annualized fee income percentage in financial element F905 (Fee Income Percent) in the the main forecasting interface.

In order for the financial element to appear in the interface and accept input of values, FS.FE ENABLED and FS.FE WRITEABLE should be set to YES. This is for financial element F905, for the Balance Sheet models where use of this option is desired.

Loan fees are calculated as a percentage of the outstanding balance of the loan. The formula for calculating these fees, called recognized loan fees, is as follows:

Recognized Loan Fees = Average Balance \* Loan Fee %/100 \* Annualization **Factor** 

**Note:** Recognized loan fees is an OFSA financial element.

It is important to note that the Income Statement report and the Interest Rate report must include the recognized loan fees amount as part of interest income.

## Non-Interest Expense

This Balance Sheet Model program object is in the database to support the entry of non-interest expense data in the main forecasting interface.

This object can be customized, if desired, to include formula-driven calculations for individual non-interest expense account balances.

### Non-Interest Income

This Balance Sheet Model program object is in the database to support the entry of non-interest income data in the main forecasting interface.

This object can be customized, if desired, to include formula-driven calculations for individual non-interest income account balances.

### Number of Accounts

Calculating the number of accounts is a method of identifying the components of an instrument in a meaningful way by separating the number of customer accounts from the average balance per customer account. This provides a way of logically dividing the performance of these types of accounts into separate components and can provide an additional, detailed source of variance data when comparing budget projections to actual performance.

Two types of calculations based on the Number of Accounts have been provided in this release.

The calculation of New Business in Fixed Bullet, Fixed-rate Amortizing and Amortizing Repricing accounts can be driven by the input of values for the number of new accounts and new balance per account.

The calculation used is:

New Business = New Balance per Account \* Number of New Accounts

The calculation of average balances for non-term and non-rate related accounts can be driven by the input of values for Average Account Balance, Average Number of Accounts and Average Percent Active Accounts. If tracking of the total average number of accounts is all that is desired, input values for Average Account Balance and Average Number of Accounts.

Total Average Balance will be calculated as:

Average Balance = Average Account Balance \* Average Number of Accounts

If you are tracking both a total number of accounts as well as a measure of active accounts, input values for Average Account Balance, Average Number of Accounts and Average Percent Active Accounts.

The ensuing calculations are:

Average Number of Active Accounts = Average Number of Accounts \* Average Percent Active Accounts

Average Balance = Average Number of Active Accounts \* Average Account Balance

To use any of this functionality, you must enable (turn on) the financial elements referenced above and designate the appropriate financial elements as writeable and as a driver for the calculation for each balance sheet model desired. To enable calculation of New Business in this manner, turn on the following financial elements:

FS.FIN\_ELEM F1343 New Balance Per Account FS.FIN\_ELEM F1344 **Number of New Accounts** 

Set the values for FS.FE\_ENABLED, FS.FE\_WRITEABLE and FS.IS\_DRIVER to YES for any or all of the Bullet. Fixed, Amort. Fixed and/or Amort. Reprice balance sheet models.

To enable calculation of average balances for non-term and non-rate related accounts when you are tracking only total accounts, you must enable the following financial elements:

FS.FIN_ELEM	F1141	Average Account Balance
FS.FIN_ELEM	F1142	Average Number of Accounts

Set the values for FS.FE ENABLED, FS.FE WRITEABLE, and FS.IS DRIVER to YES for one or both of the non-term and/or non-rate related balance sheet models. To activate tracking of number of active accounts as well, turn on the following financial elements:

FS.FIN_ELEM	F1143	Average Percent Active Accounts
FS.FIN_ELEM	F1144	Average Number of Active Accounts

Set the values for FS.FE ENABLED, FS.FE WRITEABLE and FS.IS DRIVER to YES for F1143. However, only set the value for FS.FE ENABLED to YES for F1144. FS.FE WRITEABLE and FS.IS DRIVER should remain set to NA for this financial element.

#### **Statistical Data**

This Balance Sheet Model program object is in the database to support the entry of statistical data in the main forecasting interface.

This object can be customized, if desired, to include formula-driven calculations for individual statistical account balances.

#### Tax Equivalency

Certain financial instruments are advantageous to financial institutions because all or part of their interest is tax exempt. As a result, coupon rates paid on these instruments are generally lower than their taxable counterparts. Common practice is to adjust these tax exempt instruments to a fully taxable equivalent status in order to facilitate the comparison of tax exempt instruments to taxable instruments. To have the cash flow calculations include generation of a tax equivalent adjustment amount, input an adjustment factor percentage into FS.TAX\_EQUIV\_PCT for the appropriate product.

The computation of the taxable equivalent adjustment is as follows:

Taxable Equivalent Adjustment = Total Interest \* Tax Equivalent Adjustment Factor/100

Note that the income statement report and the interest rate report must include the tax equivalent adjustment financial element as part of interest income.

Tax equivalent adjustments are not a standalone calculation but rather, are embedded within the calculation of another cash flow instrument. Tax equivalent adjustments are an additional financial element computed within the context of the standard cash flow calculation.

# **Express and OFA Object Descriptions**

This appendix contains lists to help you understand the relationships of data elements between Express, Oracle Financial Analyzer (OFA) and Budgeting & Planning.

The following table describes the information provided in the sections of this appendix:

Section	Description
Dimensions	Matches an OFA dimension, as it appears in the OFA interface, with the corresponding Express object. This section also lists the corresponding OFA dimension prefix.
Attributes (Relations)	The Express relations and OFA attributes for the Budgeting & Planning application have the same names. This section supplies descriptions for each of these objects.
Financial Data Items (Variables and Formulas)	Matches a financial data item in OFA with the corresponding Express variable or formula.
Budgeting & Planning Express Database Objects	Lists objects found solely in the Budgeting & Planning application. These objects are not registered with OFA.

# **Dimensions**

This table matches a dimension, as it is named in OFA, with the Express dimension name.

		OFA Dimension
OFA Description	Express Object Name	Prefix
Account Type	FS.ACCOUNT_TYPE	ATP
Accrual Method	FS.ACCRUAL_METH	ACM
Activity	FS.ACTIVITY	ACT
Activity Chart of Accounts	FS.ACTIVITY_COA	ACA
Balance Sheet Model	FS.BAL_SHT_MODEL	BSM
Capital Assets	FS.CAPITAL_ASSET	CPA
Chart of Accounts	FS.CHRT_OF_ACCT	COA
Currency	FS.CURRENCY	CUR
Currency Scenario	FS.CURRENCY_SCEN	CYS
Employee	FS.EMPLOYEE	EMP
Employee Info	FS.EMPLOYEE_INFO	EIN
Employee Info Chart of Accounts	FS.EMP_INFO_COA	ECA
Financial Element	FS.FIN_ELEM	FE
Financial Element Type	FS.BP_FE_TYPE	FET
Forecast	FS.FORECAST	FCST
Forecast Calculation Status	FS.CALC_STATUS	CLS
Forecast Status	FS.FCST_STATUS	SST
From Currency	FS.FROM_CURRENCY	FCUR
Income Statement	FS.INCOME_STMT	INC
Incremental Runoff Financial Elements	FS.INCR_ELEM	IEL
Interest Rate Scenario	FS.RATE_SCENARIO	RTS
Interest Rate Type	FS.INT_RATE_TYPE	IRT

		OFA Dimension
OFA Description	<b>Express Object Name</b>	Prefix
Maturity Mix Scenario	FS.MIX_SCENARIO	MSC
Mix Assumption Set	FS.MIX_ASSUM_SET	MAI
Mix Breakout	FS.MIX_BREAKOUT	MBO
Mix Element	FS.MIX_ELEMENT	MEL
Model Calculation Type	FS.MDL_CALC_TYPE	CLT
Model Definition Type	FS.MDL_DEFN_TYPE	MDT
Non-OFA BP Database Objects	FS.BP_NON_OFA	NOO
One-way Data Custom Distribution	FS.FDI_CUST_DIST	FDIDST
Organization Type	FS.ORG_TYPE	ORT
Organizational Unit	FS.ORG_UNIT	ORG
Origination Month	FS.ORIG_MONTH	ORD
Product	FS.PRODUCT	PRD
Rate Term	FS.RATE_TERM	RTM
Report Line Item	FS.REPORT_LINE	RPL
Strategy	FS.STRATEGY	STR
Time	TIME	TIME
To Currency	FS.TO_CURRENCY	TCUR
Transfer Pricing Method	FS.TP_METHOD	TPM
Transfer Rate	FS.TRAN_RATE	TRT
Worksheet Dimensions	FS.WKSHTDIMS	WSD
Worksheet User	FS.WKSHTUSER	WSU

# **Attributes (Relations)**

Budgeting & Planning OFA attributes and their underlying Express relations have the same names. This table lists and describes these objects.

Express Name	Description
FS.BSM.CALC_TYPE	BSM Calculation Type
FS.BSM.DEFN_TYPE	BSM Definition Type
FS.COA.ACCT_TYPE	COA Account Type
FS.COA.ACRL_METH	COA Accrual Method
FS.COA.ACT_COA	COA Activity Chart of Accounts
FS.COA.BS_MODEL	COA Balance Sheet Model
FS.COA.EMP_COA	COA Employee Info Chart of Accounts
FS.COA.MARKET_RT	COA Market Rate
FS.COA.PRODUCT	COA Product
FS.COA.TP_METHOD	COA Transfer Price Method
FS.CPA.CHRT_ACCT	CPA Chart of Accounts
FS.CPA.END_MONTH	CPA End Month
FS.CPA.STR_MONTH	CPA Start Month
FS.CPA.STR_W_MTH	CPA Start Weighting Month
FS.EMP.ORG_UNIT	EMP Organizational Unit
FS.FCST.AS_OF_DT	FCST Data As Of Date
FS.FCST.CLC_STAT	FCST Calculation Status
FS.FCST.CURR_SCN	FCST Currency Scenario
FS.FCST.MIX_SCN	FCST Maturity Mix Scenario
FS.FCST.RATE_SCN	FCST Interest Rate Scenario
FS.FCST.STATUS	FCST Forecast Status
FS.FE.BP_FE_TYPE	FE BP Financial Element Type
FS.IEL.FIN_ELEM	IEL Financial Element
FS.ORG.ORG_TYPE	ORG Organizational Unit Type

Express Name	Description
FS.RPL.CHRT_ACCT	RPL Chart of Accounts

# Planning Items (Variables)

This tables matches the OFA financial data item with its corresponding Express variable or formula.

OFA Name	Express Name
Activity Costs	FS.ACTIVITY_COST
Activity Factors	FS.ACT_FACTOR
Activity Units	FS.ACT_UNITS
Average Rates (formula)	FS.AVG_RATES
Average Spread (formula)	FS.AVG_SPREAD
Average Transfer Rate (formula)	FS.AVG_T_RATE
Capital Expenditures	FS.CAP_PLAN_DATA
COA Access	FS.COA_ACCESS
COA Transfer Rate Type	FS.COA.TRAN_RATE
Currency Access	FS.CUR_ACCESS
Days in Month	FS.DAYS_MONTH
Days in Year	FS.DAYS_YEAR
Employee Information	FS.EMPLOYEE_DATA
Exchange Percentages	FS.EXCHANGE_PCT
Forecast Access	FS.FCST_ACCESS
Fin Plan Access (formula)	FS.FD_ACCESS
FE Access	FS.FE_ACCESS
Is Financial Element Divisible	FS.FE_DIVISIBLE
FE Enabled	FS.FE_ENABLED

OFA Name	Express Name
FE Status	FS.FE_STATUS
FE Writable	FS.FE_WRITABLE
Financial Plans	FS.FIN_DATA
Incremental Runoff	FS.INCR_RUNOFF
Interest Rates	FS.INTEREST_RATE
Is Cashflow Model (Boolean)	FS.IS_CASHFLOW
Is FE a Driver for Model (Boolean)	FS.IS_DRIVER
Maturity Mix Default	FS.MIX_DEFAULT
Maturity Mix Map	FS.MIX_MAP
Maturity Mix Override	FS.MIX_OVERRIDE
Mix Element Enabled	FS.ME_ENABLED
Mix Element Writeable	FS.ME_WRITEABLE
New Timing Percent	FS.NB_TIMING_PCT
Org Access	FS.ORG_ACCESS
Regular Income Statement (formula)	FS.REG_INC_STMT
Spread Income Statement (formula)	FS.INC_STMT
Strategy Access	FS.STR_ACCESS
Tax Equivalence Percentage	FS.TAX_EQUIV_PCT
Time Weighting	FS.TIME_WEIGHT
Weighting Financial Element	FS.WEIGHTING_FE
Weighted Average Periods	FS.WGT_AVG_PER
Weighted Average Term	FS.WGT_AVG_TERM
Worksheet Catalog	FS.WKSHT_CATALOG

# **Budgeting & Planning Express Database Objects**

The tables in this section list Express objects that are used in the Budgeting & Planning application but not used in OFA. The following types of Express objects are included:

- Scalar variables
- Working variables and dimensions
- Catalogs
- Catalog dimensions

#### **SCALAR Variables**

These variables are distributed using the custom distribution routines for non-OFA objects. They are defined with no dimensions and can be maintained in Express Administrator.

Express Name	Description
FS.FCST_PDS	Number of Forecast Months
FS.HIST_PDS	Number of Historical Months
FS.TP_ACC_METH	Transfer Pricing Accrual Method

#### **Working Variables and Dimensions**

These variables and dimensions are distributed using the custom distribution routines for non-OFA objects. Since they are based on an Express conjoint dimension, these variables cannot be defined as FDIs in OFA.

Express Name	Description
FS.CUJO	Conjoint working dimension
FS.CUJO.DECIMAL1	Working variable
FS.CUJO.DECIMAL2	Working variable
FS.CUJO.DELETE	Working variable
FS.CUJO.SPRD_DT	Working spread date
FS.CUJO.SPRD_MTH	Working spread month

# **Catalogs**

These catalogs appear in the Super Administrator's personal database. FS.ENV.CAT is distributed during the one-way custom data distribution. FS.ARG.CAT and FS.DM.CATALOG are not.

Express Name	Description
FS.ARG.CAT	Temporary catalog variable for data loading
FS.DM.CATALOG	Dimension Catalog
FS.ENV.CAT	Environment Catalog

# **Catalog Dimensions**

These catalog dimensions appear only in the Super Administrator's personal database and are not distributed.

Express Name	Description
FS.ARG.PROP	Properties dimension for FS.ARG.CAT catalog
FS.DM.ENTRY	Lists Budgeting & Planning dimensions that correspond to OFSA leaf columns
FS.DM.PROP	Properties dimension for FS.DM.CATALOG
FS.ENV.PROP	Properties dimension for FS.ENV.CAT catalog

# **Details of the Maturity Mix Data Model**

This appendix provides detailed information on the following key variables that make up the maturity mix data model:

- FS.MIX\_DEFAULT
- FS.MIX\_MAP
- FS.MIX\_OVERRIDE

# FS.MIX\_DEFAULT Variable

The FS.MIX DEFAULT variable stores the decimal variable default values for each maturity mix characteristic

This variable is dimensioned by the following values:

Dimension	Description
FS.MIX_ELEMENT	Maturity mix characteristics
FS.MIX_BREAKOUT	Column that identifies the unique characteristics for each maturity term
FS.MIX_ASSUM_SET	Unique assumption set identifier

In Express the FS.MIX\_DEFAULT variable is defined as follows:

DEFINE FS.MIX DEFAULT VARIABLE DECIMAL <SPARSE <FS.MIX ELEMENT FS.MIX BREAKOUT> FS.MIX ASSUM SET.ID>

# **FS.MIX\_ELEMENT Dimension**

The following table outlines the standard seeded dimension values for the FS.MIX\_ ELEMENT dimension:

Dimension Value (Express)	Required/ Optional	Description	
TERM	Required	The length, in months, of the term to maturity for one corresponding breakout.	
MIX.PERCENT	Required	The mix percentage for this term number	
SPREAD	Optional	The spread for this individual term number	
REP.FREQ	Optional	The repricing frequency, in months	
AMORT.TERM	Optional	Amortization term length for balloon maturities, in months	
RES.VAL.PERCENT	Optional	Residual value percentage	
PREPAY.METHOD	Optional	The following prepayment methods are available:	
		■ 0 or NA for none	
		■ 1 for CPR	
		■ 2 for PSA factor	
		■ 3 for a monthly prepayment spread	
PREPAY.VALUE	Optional	The value for the particular prepayment method	
RATE.DECREASE.PERIOD	Optional	The maximum percentage the rate can decrease each repricing period	
RATE.INCREASE.PERIOD	Optional	The maximum percentage the rate can increase each repricing period	
RATE.DECREASE.LIFE	Optional	The maximum percentage the rate can decrease over the life of the product	
RATE.INCREASE.LIFE	Optional	The maximum percentage the rate can increase over the life of the product	
RATE.CAP.LIFE	Optional	The maximum rate for the life of the product	
RATE.FLOOR.LIFE	Optional	The minimum rate for the life of the product	

Dimension Value (Express)	Required/ Optional	Description
TEASE.DISCOUNT	Optional	Tease discount percentage

# FS.MIX\_BREAKOUT Dimension

This dimension is seeded with 10 dimension values. If you need more you must add them.

The following three charts depict how this information is stored.

Across: Time

Down: FS.CHRT\_OF\_ACCT Page: FS.MIX\_SCENARIO

Default	FS.MIX_MAP					
	Jan99	Feb99	Mar99	Apr99	May99	
Auto Loans	A000001	A000001	A000001	A000002	A000002	

Across: FS.MIX\_ELEMENT Down: FS.MIX\_BREAKOUT

Page: FS.MIX\_ASSUM\_SET (only first two values shown)

A000001	FS.MIX_DEFAULT			
	MIX.1	MIX.2	MIX.3	
Mix %	10	20	70	
Term	6	12	18	
Spread	3.00	2.00	1.00	
Repricing Frequency	NA	NA	NA	

A000002	FS.MIX_DEFAULT			
	MIX.1	MIX.2	MIX.3	•••
Mix %	20	30	50	
Term	6	12	18	
Spread	3.40	2.30	1.50	
Repricing Frequency	NA	NA	NA	

If the end user decides to change the mix percentages for the second and third terms, this "override" data is stored in the FS.MIX\_OVERRIDE variable, as shown in the following table.

Across: FS.MIX\_ELEMENT, FS.MIX\_OVERIDE

Down: FS.MIX\_BREAKOUT

Page: TIME, FS.CHRT\_OF\_ACCT, FS.ORG\_UNIT, FS.MIX\_

SCENARIO, FS.STRATEGY

Jan99 Auto Loans Branch A Default Momentum	FS.MIX_C	OVERRIDE		
	MIX.1	MIX.2	MIX.3	
Mix %	0	40	60	
Term	NA	NA	NA	
Spread	NA	NA	NA	
Repricing Frequency	NA	NA	NA	

**Note:** Only default data that is changed is stored in the FS.MIX\_ OVERRIDE variable.

When creating your assumption sets refer to the following guidelines:

- The total mix percentage(s) for a given product is equal to 100%; individual mix percentages can be equal to zero.
- Mix percentages, amortizing terms, repricing frequency, and residual value percentages can never be negative (however, spreads can be negative).
- Terms should be greater than zero or null. If the term is null the rest of the line must be null as well.
- For balloon instruments the amortizing term is greater than the loan term.
- For repricing instruments, the repricing frequency is less than the loan term and greater than zero.
- For instruments requiring a residual value percentage, that percentage is greater than zero and less than one hundred.

# FS.MIX\_MAP Variable

The FS.MIX\_MAP variable stores the unique assumption set identifier that points to the corresponding default maturity assumption set for each product.

This variable is dimensioned by the following values:

Dimension	Description
TIME	Application time
FS.CHRT_OF_ACCT	Chart of Accounts dimensions
FS.MIX_SCENARIO	Maturity scenario dimension

In Express the FS.MIX\_MAP variable is defined as follows:

DEFINE FS.MIX\_MAP VARIABLE ID <TIME SPARSE <FS.CHRT\_OF\_ACCT FS.MIX\_ SCENARIO>>

There can be as many as one default assumption set for each time period or as few as one assumption set for all time periods.

# **FS.MIX\_OVERRIDE** Variable

The FS.MIX\_OVERRIDE variable is a large, sparse decimal variable that stores any modifications to the default maturity mix.

This variable is dimensioned by the following values:

Dimension	Description
TIME	Application time
FS.MIX_ELEMENT	Maturity mix characteristics
FS.MIX_BREAKOUT	Column number or term number that identifies the unique characteristics for each different maturity term
FS.CHRT_OF_ACCT	Chart of Accounts dimension
FS.ORG_UNIT	Organizational unit dimension
FS.MIX_SCENARIO	Maturity scenario dimension
FS.STRATEGY	Strategy dimension
N.DIM	User-defined dimension

In Express the FS.MIX\_OVERRIDE variable is defined as follows:

DEFINE FS.MIX\_OVERRIDE VARIABLE DECIMAL <SPARSE <TIME FS.MIX\_ELEMENT FS.MIX\_ BREAKOUT FS.CHRT\_OF\_ACCT> FS.ORG\_UNIT SPARSE <FS.MIX\_SCENARIO FS.STRATEGY N.DIM>>

The nature of the FS.STRATEGY, FS.MIX\_SCENARIO and the N.DIM (user defined) dimensions is such that each of those dimensions is likely to have few values. They are therefore grouped together and form a composite that is slow varying.

# **Express Programs, Objects and Processes**

This appendix details specific information pertaining to Express programs, objects, and processes. The order is alphabetical.

#### **FS.ACCUMTPDEN**

Purpose	Cash flow calculation that derives the transfer rate on amortizing accounts. It is called multiple times from an amortizing cash flow calculation to accumulate values used as a denominator in the calculation. It assumes only one chart of account is currently in status.
Arguments	Transfer pricing method
	The spot rate
	The spot transfer rate
	The initial rate
	The principal balance
	The runoff amount
	The payment
	The prepay amount
	The time period
	The transfer rate
Return	A decimal value that represents a numerator value to be used later in the derivation of the transfer rate.
Called	FS.AMORT.FIXED
From	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.ACCUMTPNUM**

Purpose	Used for the derivation of the transfer rate on amortizing accounts. It is called multiple times from an amortizing cash flow calculation to accumulate values to be used as a numerator for the calculation. It assumes only one chart of account is in status.
Arguments	Transfer pricing method
	The spot rate
	The spot transfer rate
	The initial rate
	The principal balance
	The runoff amount
	The payment
	The prepay amount
	The time period
	The transfer rate
Returns	A decimal value
Called From	FS.AMORT.FIXED
	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.ADDTOSUPER**

Purpose	Creates Budgeting & Planning database objects and seeded data in the OFA Super Administrator's personal database during installation and set up.
Arguments	None
Returns	NA
Called From	Command line
Exposed to user	No
Category	Set up

#### **FS.ALLCOMPILE**

Purpose	Compiles programs in the FSBPTOOLS database during the Budgeting & Planning application installation and set up.
Arguments	None
Returns	NA
Called From	FS.ADDTOSUPER
Exposed to user	No
Category	Set up

#### FS.ALLCOMP2

Purpose	Called by FS.ALLCOMPILE
Arguments	None
Returns	NA
Called From	FS.ALLCOMPILE
Exposed to user	No
Category	Set up

#### **FS.AMORT.FIXED**

Purpose	Computes the run off, earnings and transfer pricing charges/credits for a fixed rate, amortizing instrument. It stores the calculated results in FS.INCR_DATA.
Arguments	Independent variable. The value that has been input by the user (New, Ending, or Average) expressed as the financial element value 'F100', 'F140', 'F340'.
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

#### FS.AMORT.REPRICE

Purpose	Calculates the run off and repricing for an amortizing repricing product. Stores the calculated amounts in the Incr_Data variable.
Arguments	Independent variable. The value that has been input by the user (New, Ending, or Average) expressed as the financial element value 'F100', 'F140', 'F340'.
Returns	NA
Called From	FS.CASHFLOW
Exposed to user	Yes
Category	Cash flow engine

#### **FS.ANNUALIZE**

Purpose	Annualizes an amount for a specific time period based upon the accrual method and accrual days. Used for the computation of annualized yields. For whole rates, it looks for the accrual method associated with the COA value (in FS.COA.ACC_METH). For transfer rates, it looks for the transfer rate accrual method.
Arguments	Chart of accounts dimension value (FS.CHRT_OF_ACCT)
	Time period
	Rate Type
	1 = Whole rate
	2 = Transfer rate
Returns	Decimal representing the annualized amount
Called From	FS.CASHFLOW
Exposed to user	Yes
Category	Cash flow engine

#### FS.BP\_METADATA

Purpose	Populates dimensions and OFSA-related catalogs during installation and set up.
Arguments	None
Returns	NA
Called From	FS.ADDTOSUPER
Exposed to user	Yes
Category	Set up

## FS.BP\_SOLVE

Purpose	A program that executes at the completion of FS.PROCESS.COAS and that allows a Systems Administrator to define calculations that can be performed every time a partial or full solve is performed.
Arguments	None
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	Yes
Category	Cash flow engine

#### **FS.BULLET.FIXED**

Purpose	Cash Flow Calculation used for fixed rate instruments with bullet maturities
Arguments	Independent variable. The value that has been input by the user (New, Ending, or Average) expressed as the financial element value 'F100', 'F140', 'F340'.
Returns	NA
Called From	FS.CASHFLOW
Exposed to user	Yes
Category	Cash flow engine

#### **FS.CALC.ENABLED**

Purpose	Populates a temporary variable (FS.FE_STATUS) that indicates which financial elements should be displayed in the user interface based on the currently displayed chart of accounts.
Arguments	None
Returns	NA
Called From	User interface
Exposed to user	No
Category	Cash flow engine

#### **FS.CALC.WRITE**

Purpose	Calculates the read/write status of individual cells of data in the user interface, based on the values for the TIME, FS.FORECAST, and FS.CHRT_OF_ACCT dimensions that are active for each cell.
Arguments	None
Returns	NA
Called From	FS.FD_ACCESS
Exposed to user	No
Category	Cash flow engine

#### **FS.CASHFLOW**

Purpose	Controller for all cash flow calculations, computes ending balances, transfer charges and credits, and interest
Arguments	The independent variable (new, ending, or average). Solves the other two based upon the value provided
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

## FS.CHCK\_FOR\_NODES

Purpose	For all dimensions of FS.FIN_DATA (with the exception of FIN_ELEM, TIME, and FS.FORECAST), determines if any values currently in status are node values
Arguments	None
Returns	True if there are nodes and false if there are none
Called From	FS.PROCESS.COAS
Exposed to user	Yes
Category	Push down assumptions

## FS.COMP\_INTEREST

Purpose	Given a balance and yield, computes the periodic interest
Arguments	Yield
	Balance
	Time period
	Chart of account dimension value (FS.CHRT_OF_ACCT)
Returns	Periodic interest
Called From	Command line
Exposed to user	Yes
Category	Cash flow engine

## FS.COMP\_YIELD

Purpose	Computes an annualized yield given the periodic interest and average balance
Arguments	Interest
	Balance
	Time period
	Chart of account dimension value (FS.CHRT_OF_ACCT)
Returns	Decimal value for the yield
Called From	FS.CASHFLOW
Exposed to user	Yes
Category	Cash flow engine

#### **FS.DATA.WRITE**

Purpose	Called from the user interface to update values in the database whenever a value has been changed by the user interface. It also creates a record in FS.CUJO indicating to the application that there is data to be processed.
Arguments	None
Returns	NA
Called From	User interface
Exposed to user	No
Category	User interface

#### **FS.DEANNUALIZE**

Purpose	Deannualizes an amount for a specific time period based on the accrual method and accrual days. Used for the computation of interest. For whole rates, it looks for the accrual method associated with the FS.CHRT_OF_ACCT value (FS.COA.ACCURAL_METH). For transfer rates, it uses the value in FS.TP_ACC_METH.
Arguments	Chart of account dimension value (FS.CHRT_OF_ACCT)
	Time period
	Rate type
	Whole rate
	Transfer rate
Returns	A deannualized rate
Called From	■ FS.AMORT.REPRICE
	■ FS.AMORT.FIXED
	■ FS.BULLET.FIXED
Exposed to user	Yes
Category	Cash flow engine

## FS.FDI\_DIST

Purpose	Performs custom data distribution for "one-way" FDIs.
Arguments	None
Returns	NA
Called From	OFA distribution process
Exposed to user	No
Category	Custom distribution

## FS.FDI\_REFR

Purpose	Performs refresh in subordinate database for "one-way" FDI custom data distribution.
Arguments	None
Returns	NA
Called From	OFA distribution process
Exposed to user	No
Category	Custom distribution

## FS.FIND\_ANY\_NODE

Purpose	For all dimension values except TIME, FS.FIN_ELEM and FS.FORECAST, it checks if any are node level values. If the input parameter is set to 'Yes' it changes the status to the children of the node level value.
Arguments	Yes/No: Yes puts any leaves under a node level in status.
Returns	Yes: A node level was found
	No: No node levels were found
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Push down assumptions

## FS.FIND\_CHILDREN

Purpose	Determines if the dimension value currently in status for a dimension is a node or a leaf. Also puts the children in status if it is determined to be a node.
Arguments	The Dimension Name as Text (for example, FS.ORG_UNIT)
Returns	The number of children in status ( returns a 0 if the value being fed in is already a leaf)
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Push down assumptions

## FS.FIND\_DIM\_SETS

Purpose	Called from FS.PROCESS.COAS to get all of the distinct combinations in FS.CUJO that contain the same FS.ORG_UNIT, FS.CHRT_OF_ACCT, FS.FORECAST, and other dimension values exclusive of FS.FIN_ELEM and TIME. This is called with a loop, looping over all dimension values
Arguments	None
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Cash flow engine

#### **FS.GETAMTTERM**

Purpose	This routine returns the amortization term based upon the following logic.
	1. Looks to the Mix Override planning item for a value input by the user
	2. Looks to the MIX_DEFAULT table for the default term. Uses the value from FS.GETTERM
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The amortization term
Called From	FS.AMORT.FIXED
	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETCPM**

Purpose	This routine returns a monthly prepayment amount.
	Input values: 1=CPR ,2=PSA, 3=CPR
Arguments	The prepayment method, the percentage used in the calculation, and the origination month (FS.ORIG_MONTH) $$
Returns	The Constant Monthly prepayment percentage
Called From	FS.AMORT.FIXED
	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETINITREPSPD**

Purpose	This routine is designed to look for a teaser rate on the initial rate set for a repricing account (stored in the FS.MIX_ELEMENT "TEASE.DISCOUNT). If it does not find a teaser rate value, it uses the financial element for new business spread (FE 375).
Arguments	The origination month(FS.ORIG_MONTH)
Returns	The initial repricing spread at origination (inclusive of teaser rates).
Called From	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETMONTHSTR**

Purpose	Receives an integer value and returns the three letter representation for the month.
Arguments	An integer value of 1 to 12 representing the actual month in the year (calendar year and not fiscal year based)
Returns	The three character representation for the month.
Called From	FS.MAINTAIN_TIME
Exposed to user	No
Category	Set up

#### **FS.GETNEWBRKOUT**

Purpose	This routine returns the balance weighted by a maturity mix percentage based upon the following logic. First it looks to the Mix Override planning item and second to the Mix Default planning item. Finding no value in either, returns an NA value
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The new business amount
Called From	FS.BULLET.FIXED
	FS.AMORT.FIXED
	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETPPYAMOUNT**

Purpose	This routine returns a prepayment amount based upon the following logic. First it looks to the Mix Override planning item and second to the Mix Default planning item. Finding no value in either, it returns a value of 0, which means no prepayments are calculated.
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The monthly prepayment percent.
Called From	FS.AMORT.REPRICE
	FS.AMORT.FIXED
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETPPYMETHOD**

Purpose	Returns the prepayment method used for a calculation based on the following logic. It first looks to the FS.MIX_OVERRIDE variable and, if it does not find any values, looks to the FS.MIX_DEFAULT variable. Finding no value in either, it returns a value of 0, indicating no prepayment is calculated.
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The prepayment method to use in the calculation
	1 = CPR
	2 = PSA
	3 = CPM
Called From	FS.AMORT.REPRICE
	FS.AMORT.FIXED
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETREPRATE**

Purpose	This routine computes the new rate on repricing business. It checks for the maximum rate change(+-) that can take place between repricing time periods, over the lifetime, and also checks for absolute caps and floors. It may also check for overrides.
Arguments	The origination month(fs.orig_month)
Returns	The Repricing rate
Called From	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETREPTERM**

Purpose	This routine returns a repricing term based upon the following logic. First it looks to the Mix Override planning item and second to the Mix Default planning item. Finding no value in either, it executes the fs.getterm function to use the value in the term mix element.
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The Repricing term
Called From	FS.AMORT.REPRICE
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETRESVALPCT**

Purpose	This routine retrieves a residual value percentage based on the following process. First it looks to the Mix Override planning item and second to the Mix Default planning item for a user override. Finding no value in either, it returns a value of 0, indicating there is no residual value.
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The residual value percentage
Called From	FS.AMORT.FIXED
Exposed to user	Yes
Category	Cash flow engine

#### **FS.GETSPOTTRAN**

Purpose	The purpose of this routine is to assign a transfer rate based upon the term to maturity fed into the routine for a given time period, which is also fed into the routine.
Arguments	The term to maturity expressed as an integer value, the time period
Returns	The spot transfer rate
Called From	FS.BULLET.FIXED
	FS.AMORT.REPRICE
	FS.AMORT.FIXED
	FS.ROLLOVERS
Exposed to user	Yes
Category	Cash flow engine

# **FS.GETTERM**

Purpose	This routine returns a term based upon the following logic. First looks to the Mix Override table for a value input by the user and second looks to the Mix Default planning item for the term. Finding no value, it returns a value of 1, meaning the default term.
Arguments	The origination month (FS.ORIG_MONTH)
Returns	The term to maturity
Called From	FS.BULLET.FIXED
	FS.AMORT.REPRICE
	FS.AMORT.FIXED
Exposed to user	Yes
Category	Cash flow engine

# FS.GET\_DYS\_IN\_MN

Purpose	Given an integer value for the month and a value for the year (expressed as YYYY), returns the number of days in the month
Arguments	The year in(YYYY) the month as an integer (calendar year based)
Returns	The number of days in the month
Called From	FS.MAINTAIN_TIME
Exposed to user	No
Category	Set up

# FS.GET\_DYS\_IN\_YR

Purpose	Given a year, returns the number of days in the year, adjusted for leap years.
Arguments	The Year (YYYY)
Returns	The number of days in the year
Called From	FS.MAINTAIN_TIME
Exposed to user	No
Category	Set up

#### **FS.INITORACLE**

Purpose	Initializes connection to FDM
Arguments	_dbid text 'user/password@dbname'
Returns	NA
Called From	FS.LD_CAT_LVS
	FS.LOAD
	FS.POP_DESC
	FS.SET_META2
	FS.LOAD_DATA
Exposed to user	No
Category	Set up

#### **FS.ISDRIVER**

Purpose	Returns whether or not a financial element is a driver based upon the values in the relation FS.COA.BS_MODEL. A driver indicates that this financial element can be used as an input into a calculation and used to derive other financial elements.
Arguments	None. However, assumes the chart of account(FS.CHRT_OF_ACCT) is in status and only one FS.CHRT_OF_ACCT value is in status
Returns	Boolean value YES = Is a driver value, NO = Is not a driver calculation
Called From	FS.PROCESS.COAS
Exposed to user	Yes
Category	Cash flow engine

#### **FS.ISNODE**

Purpose	Determines if a value is a node or not for a single dimension value. Assumes the node value to test is already in status.
Arguments	The dimension type
Returns	Yes: If it is a node
	No: If it is not a node
Called From	Not applicable
Exposed to user	No
Category	Cash flow engine

# FS.LD\_BP

Purpose	Loads data from BP_Financial_Data
Arguments	■ _cube text
	<ul><li>_tblopt text</li></ul>
	■ _tbl text
	<ul><li>_where text</li></ul>
	■ _sum text
Returns	NA
Called From	FS.LOAD_DATA
Exposed to user	No
Category	Data movement routines

# FS.LD\_CAT\_IDS

Purpose	Brings Catalog of IDs from FDM
Arguments	_sidn text
Returns	NA
Called From	FS.LOAD
Exposed to user	No
Category	Data movement routines

# FS.LD\_CAT\_LVS

Purpose	Brings Catalog of Leaves from FDM
Arguments	_dbid text
Returns	NA
Called From	FS.LOAD
Exposed to user	No
Category	Data movement routines

# ${\sf FS.LD\_DEST}$

Purpose	Helps load FDM data (general)
Arguments	_cube text
Returns	NA
Called From	NA
Exposed to user	No
Category	Data movement routines

# FS.LD\_INT

Purpose	Loads interest rates
Arguments	_cube text
	_rh_sys_id text
	_rf_sys_id text
	_rf_scen text
	_fs_scen_text
	_pfx text
	Defaults to F
Returns	NA
Called From	FS.LOAD_DATA
Exposed to user	No
Category	Data movement routines

# FS.LD\_INT\_RFDEST

Purpose	Loads data from Rates_Forecast
Arguments	_cube text
Returns	NA
Called From	FS.SQLFETCH2
Exposed to user	No
Category	NA

#### FS.LD\_INT\_RH

Purpose	Loads data from Rates_History
Arguments	_cube text
	_rh_sys_id text
	_rf_sys_id text
	_rf_scen text
	_fs_scen text
	_pfx text
	_mult text
Returns	NA
Called From	FS.LD_INT
Exposed to user	No
Category	NA

# FS.LD\_INT\_RHDEST

Purpose	Moves interest rate data to FS.INTEREST_RATES
Arguments	_cube text
Returns	NA
Called From	FS.SQLFETCH
Exposed to user	No
Category	NA

# FS.LD\_LS

Purpose	Loads data from LEDGER_STAT
Arguments	_cube text
	_tblopt text
	_tbl text
	_where text
	_sum text
Returns	NA
Called From	FS.LOAD_DATA
Exposed to user	No
Category	NA

# ${\sf FS.LD\_LS\_DEST}$

Purpose	Helps load LEDGER_STAT during fetch
Arguments	_cube text
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

#### FS.LD\_RB

Purpose	Reads RESULT_BUCKET table
Arguments	_cube text
	_tblopt text
	_tbl text
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

#### FS.LD\_RM

Purpose	Loads data from RES_DTL_XXXXXX table
Arguments	_cube text
	_tblopt text
	_tbl text
	_where text
	_sum text
Returns	NA
Called From	FS.LOAD_DATA
Exposed to user	No
Category	NA

# ${\sf FS.LD\_RM\_DEST}$

Purpose	Helps load FDM data (RES_DTL_XXXXXX)
Arguments	_cube text
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

#### FS.LEAF\_DESC

Purpose	Loads leaf description
Arguments	_sidn text
Returns	NA
Called From	FS.LOAD
Exposed to user	No
Category	NA

#### **FS.LEAPYEAR**

Purpose	Determines if a year is a leap year
Arguments	A year time dimension value
Returns	Yes if it is a leap year, no if it is not.
Called From	FS.MAINTAIN_TIME
Exposed to user	No
Category	Set up

# FS.LIMIT\_TO\_CUJO

Purpose	Limits all dimension values to only those in FS.CUJO
Arguments	None
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Cash flow engine

#### **FS.LOAD**

Purpose	Manages loading of hierarchies
Arguments	_sidn text
	_dbid text
Returns	NA
Called From	FS.RUN_LD
Exposed to user	No
Category	NA

# FS.LOAD\_DATA

Purpose	Loads data from various FDM tables
Arguments	_dbid text
	_cube text
	_tblopt text
	_tbl text
	_where text
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

# FS.LOAD\_HIER

Purpose	Loads leaves and nodes from FDM
Arguments	a_dbid text "'user/password@dbname'
	a_dim_name text " no wider than 6
	a_sidn text " OFSA sys_id_num
	a_orphans text " null or 'ORPHANS' - stray leaves
	_hier text "hierarchy dimvalue
	to load into (for example, FMSHDIM.ORG=HI.AA19943)
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

# FS.MAINTAIN\_TIME

Purpose	Sets FS.ORIG_DATE equal to the values of time, populates the FS.DAYS_MON, FS.DAYS_YEAR and FS.TIME_WEIGHT variables
Arguments	None
Returns	NA
Called From	Directly by the administrator
Exposed to user	No
Category	Set up

# FS.MAK\_CURSOR

Purpose	Creates program to declare and open a SQL cursor
Arguments	_stmt text
	_cursor text
	_pgmcurs text
	_pgmtpl text
Returns	NA
Called From	FS.LD_BP
	FS.LD_INT_RH
	FS.LD_INT_RHDEST
	FS.LD_LS
Exposed to user	No
Category	NA

# FS.MAK\_FETCH

Purpose	Creates program to fetch a SQL cursor
Arguments	_stmt text " 1
	_desttext " 2
	_cursor text " 3
	_pgmcurstext " 4
	_pgmtpl text " 5
Returns	NA
Called From	FS.LD_BP
	FS.LD_INT_RH
	FS.LD_INT_RHDEST
	FS.LD_LS
	FS.LD_RM
Exposed to user	No
Category	NA

#### **FS.MONTRK**

Purpose	Diagnostic tool
Arguments	_verb text " INIT UPDATE or OFF
	_object1 text
	_object2 text
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

#### **FS.MSG.GET**

Purpose	Gets descriptions and error messages
Arguments	_cd integer
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

#### FS.MSG.PUT

Purpose	Puts descriptions and error messages
Arguments	None
Returns	NA
Called From	NA
Exposed to user	No
Category	NA

# FS.NODE\_DESC

Purpose	Loads node descriptions
Arguments	_sidn text
Returns	NA
Called From	FS.LOAD
Exposed to user	No
Category	Data movement routines

#### FS.NON.INT.EXP

Purpose	Performs user-defined calculations for non-interest expense accounts
Arguments	None
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

# FS.NON.INT.INC

Purpose	Performs user-defined calculations for non-interest income accounts
Arguments	None
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

#### FS.NON.RATE.REL

Purpose	Calculates balance and transfer charge/credit information for non-rate related balance sheet accounts
Arguments	The driver (average or ending balance)
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

#### **FS.NON.TERM**

Purpose	Calculates information for non-term, interest bearing financial instruments, such as DDA and credit card accounts.
Arguments	The financial element driver.
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

# FS.NON\_OFA\_DIST

Purpose	Performs custom structure distribution for non-OFA enabled Budgeting & Planning objects
Arguments	None
Returns	NA
Called From	OFA distribution process
Exposed to user	No
Category	Custom distribution

#### FS.NON\_OFA\_REFR

Purpose	Performs refresh in subordinate database for non-OFA enabled Budgeting & Planning objects in custom structure distribution
Arguments	None
Returns	NA
Called From	OFA distribution process
Exposed to user	No
Category	Custom distribution

#### **FS.PARTIALROLLUP**

Purpose	Rolls up data values across all hierarchy points
Arguments	Rolls up only the values impacted by a change made by the user in the user interface
	Solves for all hierarchy points, regardless of status.
Returns	NA
Called From	FS.PROCESS.COAS
	Command line
Exposed to user	Yes
Category	Cash flow engine

#### **FS.PAYMENT**

Purpose	Calculates a constant payment given a balance, rate, and term
Arguments	Principal balance
	Rate
	Term
Returns	The monthly payment
Called From	NA
Exposed to user	Yes
Category	Cash flow engine

#### **FS.PGMTXT**

Purpose	Returns program shell for SQL cursor and fetch
Arguments	_pgm text
Returns	NA
Called From	FS.MAK_CURSOR
	FS.MAK_FETCH
Exposed to user	No
Category	Data movement routines

#### FS.POP\_DESC

Purpose	Refreshes leaf/node descriptions
Arguments	_dbid text
	_dim text
	_notfound text " if a desc is not found,
	'LEAVE_ALONE' or 'DIMVAL'
	_suffix text " appended to description
Returns	NA
Called From	FS.LOAD_DATA
Exposed to user	No
Category	Data movement routines

# FS.POP\_LABELS

Purpose	Fills blank descriptions with dimension values
Arguments	_suffix text
Returns	NA
Called From	FS.ADDTOSUPER
Exposed to user	No
Category	Data movement routines

#### FS.POP\_LEAF

Purpose	Adds nodes to the LEAF and populates the hierarchy relation
Arguments	_sidn text
Returns	NA
Called From	FS.LOAD
Exposed to user	No
Category	Data movement routines

#### FS.PROCESS.COAS

Purpose	Calculates the cash flow for values changed during a session
Arguments	None
Returns	NA
Called From	User interface
Exposed to user	No
Category	Cash flow engine

#### **FS.PUSHDOWN**

Purpose	Allocates values from node levels to a leaf level, based on either a straight line allocation or the percentage distribution based on another time period. This program does not push down values for the time dimension.
Arguments	1 = equally apportioned
	2 = weighted on another time period
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Cash flow engine

# FS.PUSH\_DN\_TIME

Purpose	Allocates values from a node time level to leaf levels, either equally or weighted by the number of days in the time period.
Arguments	1 = equally apportioned
	2 = weighted based on the number of days in the time period
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Cash flow engine

#### **FS.RATESOLVER**

Purpose	This routine calculates either the rate, transfer rate, or spread based upon the other two.
	For assets the equation is Rate = Transfer Rate+Spread.
	For liabilities the equations is Rate = Transfer Rate-Spread.
Arguments	The Method
	■ Compute the rate
	■ Compute the Spread
	The Transfer Rate
	The Spread
Returns	Either the rate or the spread based on the input value
Called From	FS.AMORT.FIXED
	FS.AMORT.REPRICE
	FS.BULLET.FIXED
	FS.ROLLOVERS
	FS.NON.TERM
Exposed to user	Yes
Category	Cash flow calculations

# **FS.ROLLOVERS**

Purpose	Cash Flow calculation used for fixed rate instruments with rollover characteristics
Arguments	Independent variable. The value that has been input by the user (New, Ending, or Average) expressed as the financial element value 'F100', 'F140', 'F340'.
Returns	NA
Called From	FS.CASHFLOW
Exposed to user	Yes
Category	Cash flow engine

#### **FS.ROLLUPAVGS**

Purpose	Computes day weighted average balances (FS.FIN_ELEM F140) for node level time dimension values
Arguments	None
Returns	NA
Called From	FS.PARTIALROLLUP
Exposed to user	No
Category	Cash flow calculations

# FS.RUN\_LD

Purpose	Loads leaves and nodes from FDM
Arguments	a_dim_name text " no wider than 6
	a_sidn text " OFSA sys_id_num
	a_dbid text "'user/password@dbname'
	a_orphans text " null or 'ORPHANS' - stray leaves
Returns	NA
Called From	FS.LOAD_HIER
Exposed to user	No
Category	Data movement routines

# FS.RUN\_THE\_MODEL

Purpose	Determines which type of calculation to apply to the values being changed. Also determines if the calculation is a cash flow or non-cash flow type and executes the FS.CASHFLOW program for the former and directly execute the latter.
Arguments	The driver: The financial element that has been input by the user.
Returns	NA
Called From	FS.PROCESS.COAS
Exposed to user	No
Category	Cash flow calculations

#### FS.SET\_META

Purpose	Sets key metadata during installation and set up
Arguments	■ The connection string for the OFSA database
	■ The as-of-date to be set for the BASE forecasts
Returns	NA
Called From	NA
Exposed to user	Yes (to the DBA during set up)
Category	Set up

# FS.SET\_META2

Purpose	Reads metadata from OFSA FDM
Arguments	_dbid text
	_asof text
Returns	NA
Called From	FS.SET_META
Exposed to user	Yes (to the DBA during set up)
Category	Set up

#### **FS.SOLVEBALANCES**

3.30LVEBALANCES	
Purpose	This program calculates the following cash flow accounts, based on the financial element (FS.FIN_ELEM) driver value input.
	For Cash Flow Calculations:
	■ F1343: # of new accounts
	F340= F1343*F1344
	■ F1344 : New Account Balance
	F340=F1343*F1344
	■ F100: Ending Balance
	F340=F100-F100(prior Period)+C790 + N210
	■ F140: Average Balance
	$F100 = (F140 - C140) / fs.new\_timing - F100 (prior\ period) + C100$
	F340=F100-C100-N100(prior period)+N210
	N100=F320+N100(prior period)-N210
	For Non Cash Flow Calcs
	■ F340: Net New
	F100=F340-F100(prior period)
	■ F100: Ending Balance
	$F140 = F100 (prior\ period)*(1-fs.new\_timing) + F100*fs.new\_timing$
	■ F140: Average Balance
	F100=(F140-F100(prior period)*(1-fs.new_timing))/Fs.new_timing
	■ F1141: Average Account Balance
	F140=F1141*F1142
	F100=(F140-F100(prior period)*(1-fs.new_timing))/Fs.new_timing
	■ F1142: Average Number of Accounts
	F140=F1141*F1142
	F100=(F140-F100(prior period)*(1-fs.new_timing))/Fs.new_timing
	■ F1143: Average Percent Active Accounts
	F1144=F1143/100*F1142
	F140=F1141*F1144
	F100=(F140-F100(prior period)*(1-fs.new_timing))/Fs.new_timing
Arguments	The financial elements (FS.FIN_ELEM) input by the user.
Returns	NA
	<del></del>

Called From	FS.AMORT.FIXED
	FS.AMORT.REPRICE
	FS.BULLET.FIXED
	FS.NON.TERM
	FS.NON.RATE.REL
Exposed to user	Yes
Category	Cash flow calculations

#### **FS.SQLCDESC**

Purpose	Called by FS.POP_DESC
Arguments	_dimval text
	_leafnode text
	_leafnumid text " Doubles as SYS_ID_NUM for NODE_DESC
	_desctbl text
Returns	NA
Called From	FS.POP_DESC
Exposed to user	No
Category	NA

#### **FS.STATISTICAL**

Purpose	Performs user-defined calculations for statistical accounts
Arguments	None
Returns	NA
Called From	FS.RUN_THE_MODEL
Exposed to user	Yes
Category	Cash flow engine

#### **FS.TRACKRPT**

Purpose	Diagnostic tool
Arguments	None
Returns	NA
Called From	FS.MONTRK
Exposed to user	No
Category	NA

#### **FS.WGHTAVGTPRATE**

Purpose	Computes a weighted average transfer rate for non-term and non-rate related accounts. Uses the value in FS.WGT_AVG_PER to determine the number of prior periods to use in the calculation and the value in FS.WGT_AVG_TERM to determine which point on the yield curve to use.
Arguments	The time period
Returns	The weighted average transfer rate
Called From	FS.NON.RATE.REL
	FS.NON.TERM
Exposed to user	Yes
Category	Cash flow calculations

# FS.WRI\_DBG

Purpose	Diagnostic tool
Arguments	_msg text
	_new_app text
Returns	NA
Called From	FS.LD_BP
	FS.LD_INT
	FS.LD_INT_RH
	FS.LD_LS
	FS.LD_RM
	FS.POP_DESC
	FS.SET_META2
	FS.SQLFETCH2
	FS.LOAD_DATA
	FS.SQLFETCH
Exposed to user	No
Category	NA

#### FS.XP\_PREFIX

Purpose	Determines the system-defined shortlabel and longlabel prefix. It is used for finding the parent relation information of a dimension.
Arguments	The Dimension Name as Text (for example, ORG, COA)
Returns	The prefix to be applied to the hierarchy relation information(eg.p1,c4)
Called From	Process Accounts
Exposed to user	No
Category	NA

#### LC.STARTUP.PRG

Purpose	Attaches FSLANG as an OFA custom database whenever FSBPTOOL is attached as the primary OFA custom database.
Arguments	None
Returns	NA
Called From	OFA start up process
Exposed to user	No
Category	OFA integration

#### **OFAENV.STARTUP**

Purpose	Start the OFA environment without the front-end
Arguments	_lang text "eg, ENU
Returns	NA
Called From	FS.ADDTOSUPER
	FS.ALLCOMPILE
	FS.RUN_LD
	FS.LOAD_DATA
Exposed to user	No
Category	NA

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