

**Oracle® Financial Services Profitability Management
(OFSPM)**

User Guide

Release 5

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Oracle Financial Services Profitability Management (OFSPM) User Guide, Release 5

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Contents

Send Us Your Comments

Preface

1 Introduction

Introduction to Profitability Management.....	1-1
Oracle Financial Services Enterprise Performance Management.....	1-1
Oracle Financial Services Enterprise Risk Management.....	1-3
Getting Started.....	1-4
Navigating to the Financial Services Applications Home Page.....	1-8

2 Overview of OFSAA Infrastructure

OFSAA Infrastructure.....	2-1
Overview of Dimensionality in OFSAA.....	2-3
Referential Integrity.....	2-3
Dimension Attributes.....	2-4
Hierarchies.....	2-4
Rollup Members for Dimensions Supporting Hierarchies.....	2-5
Dimension Types.....	2-5
Key Processing Dimensions.....	2-5
Standard Dimensions.....	2-7
Simple Dimensions.....	2-7
Overview of Attributes.....	2-9
Overview of OFSAA Rules.....	2-10
OFSAA Expressions.....	2-12
Folders.....	2-12

Access Type.....	2-13
Application Preferences.....	2-13

3 OFSAA Administrative Reporting

Introduction.....	3-1
Access Permissions.....	3-4
Data Quality.....	3-4
Data Quality Dashboard.....	3-6
Object Registration.....	3-13
Security.....	3-14
Adhoc Reporting – Special Instructions.....	3-20

4 OFSAA Data Entry Forms and Queries

Introduction to Data Entry Forms and Queries.....	4-1
Acronyms	4-1
Designing Data Entry Forms.....	4-2
Creating a New Form.....	4-3
The Grid Layout.....	4-4
The Single Record Layout.....	4-5
The Edit/View Layout.....	4-5
The Multi Column Layout.....	4-6
The Wrapping Row Layout.....	4-7
The Tree View Layout.....	4-8
Joining Tables.....	4-11
For Grid, Single Record, Edit/View, Wrapping Row, Multicolumn and Tree View Layouts.	4-12
For Grid, Single Record, Edit/View, Wrapping Row & Multicolumn Layouts.....	4-14
Applying Rules.....	4-16
Committing the Batch.....	4-18
Defining the Form Filter.....	4-18
Data Versioning.....	4-18
Specifying Message Details.....	4-19
Altering an Existing Form.....	4-28
Copying an Existing Form.....	4-32
Deleting a Form.....	4-33
Assigning Rights to a Form.....	4-34
Message Type Maintenance.....	4-37
Entering Data.....	4-40
Viewing Form Details.....	4-40
Single Record layout.....	4-41

Grid Layout	4-42
Multi Column Layout	4-43
Wrapping Row Layout	4-44
Editing a Form	4-45
Roll Back.....	4-45
Adding Rows to a Form.....	4-46
Deleting a Record in a Form.....	4-46
Authorizing Data.....	4-46
Re-authorizing Records.....	4-48

5 OFSAA Attributes

Overview.....	5-1
Summary & Detail Screens.....	5-1
Navigation within the Summary Screen.....	5-1
Dimension Container.....	5-2
Search Container.....	5-2
Dimension Attributes Container.....	5-2
Dimension Attributes Summary Grid.....	5-4
Navigation within the Detail Screen.....	5-5
Attribute Functionality.....	5-5
Dimension Container.....	5-5
Attribute Details Container.....	5-5
Attribute Properties Container.....	5-6

6 OFSAA Dimension Members

Summary & Detail Screens.....	6-1
Navigation within the Summary Screen.....	6-1
Dimension Container.....	6-1
Search Container.....	6-2
Dimension Members Container.....	6-2
Dimension Members Summary Grid.....	6-4
Navigation within the Detail Screen.....	6-5
Dimension Member Functionality.....	6-5
Dimension Container.....	6-5
Dimension Member Details Container.....	6-5
Dimension Member Attributes Container.....	6-7

7 OFSAA Hierarchies

Overview of OFSAA Hierarchies.....	7-1
Summary & Detail Screens.....	7-1

Navigation within the Summary Screen	7-2
Dimension Container.....	7-2
Search Container.....	7-2
Hierarchies Container.....	7-3
Hierarchies Summary Grid.....	7-4
Navigation within the Detail Screen	7-5
Hierarchy Functionality.....	7-6
Dimension Container.....	7-6
Hierarchy Properties Container.....	7-7
Hierarchy Display Grid.....	7-8
Controlling the Hierarchy Display	7-9
Adding Hierarchies	7-11
Editing Hierarchies	7-14

8 OFSAA Filters

Overview of OFSAA Filters	8-1
Summary & Detail Screens	8-1
Navigation within the Summary Screen	8-1
Filters Summary Grid	8-3
Navigation within the Detail Screen	8-4
Data Element Filters	8-5
Hierarchy Filters	8-11
Group Filters	8-12

9 OFSAA Expressions

Expressions	9-1
Summary & Detail Screens	9-1
Navigation within the Summary Screen	9-1
Expressions Container	9-2
Expressions Summary Grid	9-3
Navigation within the Detail Screen	9-4
Entity Type & Entity Name Drop Down List Boxes	9-6
Functions and Operators Sub-Containers	9-8

10 OFSAA Rate Management

Overview	10-1
Interest Rates Summary Screen	10-3
Interest Rates Detail Screen	10-6
Currency	10-15
Currency Rates	10-19

Currency Exchange Rate Validation	10-24
Currency Rate Validation – Overview	10-24
Exchange Rate Validation – Feature Description	10-24
Currency Rate Validation – Procedure	10-25
Validating Exchange Rate Relationships	10-25
Economic Indicators Summary Screen	10-32
Economic Indicators Detail Screen	10-34
11 Simplified Batches	
Overview of Simplified Batches.....	11-1
Summary and Detail Screens.....	11-3
Navigation within the Summary Screen.....	11-3
Navigation within the Detail Screen.....	11-6
Task Selection.....	11-10
Running a Simplified Batch.....	11-15
Viewing the Task Logs.....	11-17
Additional Batch Options.....	11-18
12 Overview of Profitability Management	
Introduction.....	12-1
Multiple Dimensions of Profitability.....	12-1
Overview of Profitability Management Methodologies.....	12-6
Initial Loads to the Management Ledger.....	12-9
13 Allocation Specification	
Introduction.....	13-1
Navigation within the Summary Screen.....	13-2
Navigation within the Detail Screen.....	13-7
Initial Definition Process Tab.....	13-8
Source Process Tab.....	13-12
Operator Process Tab.....	13-19
Driver Process Tab.....	13-22
Outputs Process Tab.....	13-25
Review Process Tab.....	13-30
Allocation Examples.....	13-31
14 Static Table Driver	
Overview.....	14-1
Summary & Detail Screens.....	14-1

Navigation within the Summary Screen.....	14-1
Navigation within the Detail Screen.....	14-5
Using Static Table Drivers.....	14-14

15 Lookup Table Driver

Overview.....	15-1
Summary & Detail Screens.....	15-1
Navigation within the Summary Screen.....	15-1
Navigation within the Detail Screen.....	15-5

16 Allocation Execution History

Allocation Execution History Functionality.....	16-1
Allocation Execution History User Interface.....	16-2
Allocation Execution Audit Functionality.....	16-6

A Multicurrency

OFSAA Rate Management.....	A-2
Functional Currency.....	A-2
Currency Codes.....	A-3
002 code.....	A-3
Loading the Management Ledger Table.....	A-3
Multiple Currencies in Allocation Rules.....	A-4
Using the Currency Dimension as a Filtering Condition.....	A-5
Allocation Engine Process Processing Flow.....	A-5
Selecting Rows from Ledger/Stat.....	A-6
Treatment of Constants and Coefficient Values.....	A-7
Selecting Rows from Detail Tables.....	A-7
Inserting Into or Updating Ledger/Stat.....	A-9
Updating Detail Tables.....	A-9
Notes on Usage of Statistics and Other Balances.....	A-9
Monetary Balances and Balance Weighted Objects.....	A-10
Statistics & Standard Rates.....	A-10
Examples.....	A-11

B Fiscal Year Information

Configuring a Fiscal Year.....	B-1
How YTD Calculations Are Affected by a Fiscal Year Configuration.....	B-2
Examples of Calendar Year and Fiscal Year Configurations.....	B-3
Using the Undo Function with a Fiscal Year Configuration.....	B-6

C	Seeded Financial Elements	
	Financial Elements Listed By Number.....	C-1
D	Debit & Credit Conventions	
	Conventions within the Management Ledger.....	D-1
E	Financial Element Aggregation Methods	
	Overview.....	E-1
	Aggregation Methods.....	E-1
F	SQL Hints	
	Overview.....	F-1
	Types of SQL hints.....	F-2
	How to use SQL Hints.....	F-3
	Sample Queries.....	F-4
G	Profitability Management Parallel Execution	
	Overview.....	G-1
	Parallelism Options.....	G-3
	PARALLEL_QUERY	G-3
	PARALLEL_DML.....	G-5
	PARALLEL_DEGREE_POLICY	G-6
	Parallel Execution Documentation Resources.....	G-7

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Oracle Financial Services Profitability Management (OFSPM) User Guide, Release 5

Part No. E25486-02

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Preface

Intended Audience

Welcome to Release 5 of the *Oracle Financial Services Profitability Management (OFSPM) User Guide*.

Forward

This user guide documents OFSAA Profitability Management for all versions of release 5. Some functional improvements have been introduced in various service packs and point releases within release 5.

This section documents the levels at which various functional enhancements to the Profitability Management application were first introduced.

Profitability Management release 5.2

Support for Expressions within Allocation rules (see chapter Allocation Specification, page 13-1)

Profitability Management release 5.5

Support for Simplified Batches

Profitability Management release 5.6

Support for SQL Hints and Oracle Parallel Execution (see Appendixes SQL Hints, page F-1 and Profitability Management Parallel Execution, page G-1)

See Related Information Sources on page xv for more Oracle product information.

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Structure

- 1 Introduction**
- 2 Overview of OFSAA Infrastructure**
- 3 OFSAA Administrative Reporting**
- 4 OFSAA Data Entry Forms and Queries**
- 5 OFSAA Attributes**
- 6 OFSAA Dimension Members**
- 7 OFSAA Hierarchies**
- 8 OFSAA Filters**
- 9 OFSAA Expressions**
- 10 OFSAA Rate Management**
- 11 Simplified Batches**
- 12 Overview of Profitability Management**
- 13 Allocation Specification**
- 14 Static Table Driver**
- 15 Lookup Table Driver**
- 16 Allocation Execution History**
- A Multicurrency**

This Appendix covers:

- Implementation of multiple currencies in OFSAA solutions
- How currency translation is used in OFSAA Profitability Management calculations
- Usage of multiple-currency output from Profitability Management in relation to the Management Ledger, Instrument, and Transaction Summary tables

B Fiscal Year Information

Oracle Financial Services Analytical Applications (OFSAA) support both calendar year (January to December) and fiscal year configurations. If your organization operates on a fiscal year calendar, this appendix documents how to configure your fiscal year within OFSAA and how a fiscal year configuration affects processes that insert into or update the Ledger/Stat table. Note that in the context of this appendix, a fiscal year denotes a non-calendar financial year (that is, a year that does not contain 12 months and/or does not begin in January and end in December).

- C Seeded Financial Elements**
- D Debit & Credit Conventions**
- E Financial Element Aggregation Methods**
- F SQL Hints**
- G Profitability Management Parallel Execution**

Related Information Sources

- Oracle Financial Services Cash Flow Engine Reference Guide
- Oracle Financial Services Analytical Applications Data Model Utilities User Guide
- Oracle Financial Services Analytical Applications Data Model Data Dictionary
- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide
- Oracle Financial Services Analytical Applications Infrastructure User Guide
- Oracle Financial Services Funds Transfer Pricing User Guide
- Oracle Financial Services Asset Liability Management (OFSALM) User Guide
- Oracle Financial Services Profitability Analytics User Guide

Introduction

Introduction to Profitability Management

This chapter presents the following topics:

- Oracle Financial Services Analytical Applications Overview
- Oracle Financial Services Enterprise Performance Management
- Oracle Financial Services Enterprise Risk Management
- Getting Started

Oracle Financial Services Enterprise Performance Management

To help financial institutions grow, manage risk, and optimize shareholder value, Oracle delivers a comprehensive, integrated suite of financial services analytical applications for enterprise performance management (EPM).

More than ever, financial institutions, their regulators as well as their shareholders are focused on the need to measure and meet risk-adjusted performance objectives, price products to reflect their true risk, and better understand how their institution is impacted by threats to liquidity, capital adequacy, and exposure to market rate volatility.

OFSAA Data Model

OFSAA Data Model (OFSAADM) is a standalone data warehouse with prepackaged data elements for the financial services industry. OFSAADM is also the foundation for the OFS applications. It provides the database structures necessary to support the individual business applications.

OFSAA Funds Transfer Pricing

Oracle Financial Services Funds Transfer Pricing is the industry's first and leading matched maturity funds transfer pricing application, enabling financial institutions to determine the spread earned on assets, from funding sources, and the spread earned as a result of interest rate exposure for each and every customer relationship. This enables accurate assessment of profitability along product, channel, and business lines, as well as the centralization of interest rate risk so it can be effectively managed. Oracle Financial Services Funds Transfer Pricing is fully integrated with Oracle's Financial Services Analytical Applications and shares a common customer account level data model.

The transfer pricing process isolates the four major sources of a bank's margin:

- The spread earned on assets
- The spread earned on liabilities
- The spread earned or lost as a result of interest rate exposure
- The spread earned or lost as a result of embedded options such as prepayments

Measuring and managing interest margin offers tremendous profit opportunities. By separating the components of net interest income, Oracle Funds Transfer Pricing isolates rate risk into your funding center where it can be centrally managed. In turn, business units are held accountable for what they can control: pricing and profitability. Armed with this highly accurate information, companies make solid, supportable decisions that lead to increased success in the marketplace.

OFSAA Profitability Management

Oracle Financial Services Profitability Management enables financial services institutions to calculate profitability by products, channels, segments, and even individual customers. These profitability calculations are adjusted for risk, and they drive Risk-Adjusted Performance Management (RAPM), an imperative for financial services institutions operating in this rapidly evolving and complex industry.

Isolating and analyzing business unit profitability is only the first step in building effective profitability management. To hold operational managers truly accountable for profitability, senior management must give them the power to identify the products that are profitable in each market segment, for each customer.

Together with OFSAA Transfer Pricing, OFSAA Profitability Management is the tool that delivers this power. Profitability Management links general ledger, account-level, and statistical data together to produce detailed financial statements for individual business units, products, and customers. Combining powerful modeling and disciplined accounting, OFSAA Profitability Management delivers complete, accurate, and inclusive profiles of profitability.

OFSAA Pricing Management, Transfer Pricing Component

Oracle Financial Services Pricing Management, Transfer Pricing Component is an interactive application that provides real-time transfer rates to support pricing loan transactions that reflect immediate market conditions. Risk-based pricing queries are directly integrated with the Oracle Financial Services Funds Transfer Pricing solution and leverage the same business rule logic. Query results incorporate all details of the underlying transfer price and include all elements of a product's profit and loss, including the allocated expense, expected loss, and capital charge.

OFSAA Asset Liability Management

Volatile market conditions and increasing regulatory pressures are placing greater demands on the risk management function. These stresses are driving financial institutions to review their current risk modeling and measurement capabilities. Yet, these circumstances also provide institutions with the opportunity to update technology solutions to systems fully integrated across the risk and performance spectrum. Departmental, one-off solutions are no longer viable alternatives in an environment where all systems need to work together.

Oracle Financial Services Asset Liability Management (ALM) helps financial services institutions measure and manage interest rate risk and liquidity risk, perform balance sheet valuations, and forecast both net interest income and net income. The Oracle Financial Services ALM solution measures and models every loan, deposit, investment, and off-balance sheet instrument individually, using both deterministic and stochastic methods. This helps institutions gain a better understanding of the risks they have assumed and their sensitivity to changes in economic conditions.

OFSAA Balance Sheet Planning

Oracle Financial Services Balance Sheet Planning is designed to help financial services institutions budget for a full balance sheet and the associated profit and loss statement.

Banks have a number of very unique needs when looking ahead. They must be sensitive to economic conditions, and create plans that not only forecast future performance, but also the forward risks they are assuming. Most importantly, they require tools that accurately forecast net interest margin. By accurately modeling the detailed and complex events on a bank's balance sheet, for both the current book of business and forecasted new volumes, Oracle Financial Services Balance Sheet Planning enables the delivery of accurate margin forecast and comprehensive, meaningful budgets.

Oracle Financial Services Enterprise Risk Management

Enterprise risk management (ERM) solutions span all areas of risk, including credit, market, operational, liquidity, fixed asset, business and reputation risk, enabling institutions to manage all their risks and provide necessary feeds for compliance-based

reporting. The capabilities of Oracle Reveleus for risk management help financial institutions address compliance issues such as Basel II that demand a close operational synergy between finance and other business areas.

Governance Risk and Compliance (GRC)

The Oracle Reveleus GRC (Governance, Risk, and Compliance) framework surrounds both the Oracle Reveleus and Oracle Mantas risk and compliance "point" solutions. It provides an end-to-end GRC solution that leverages a comprehensive data model and robust dashboard functionality. The framework facilitates a transparent view of all GRC-related activities across the enterprise, allowing senior management to identify and mitigate any operational inefficiencies that might potentially increase noncompliance risks or the overall cost of compliance.

Customer Insight

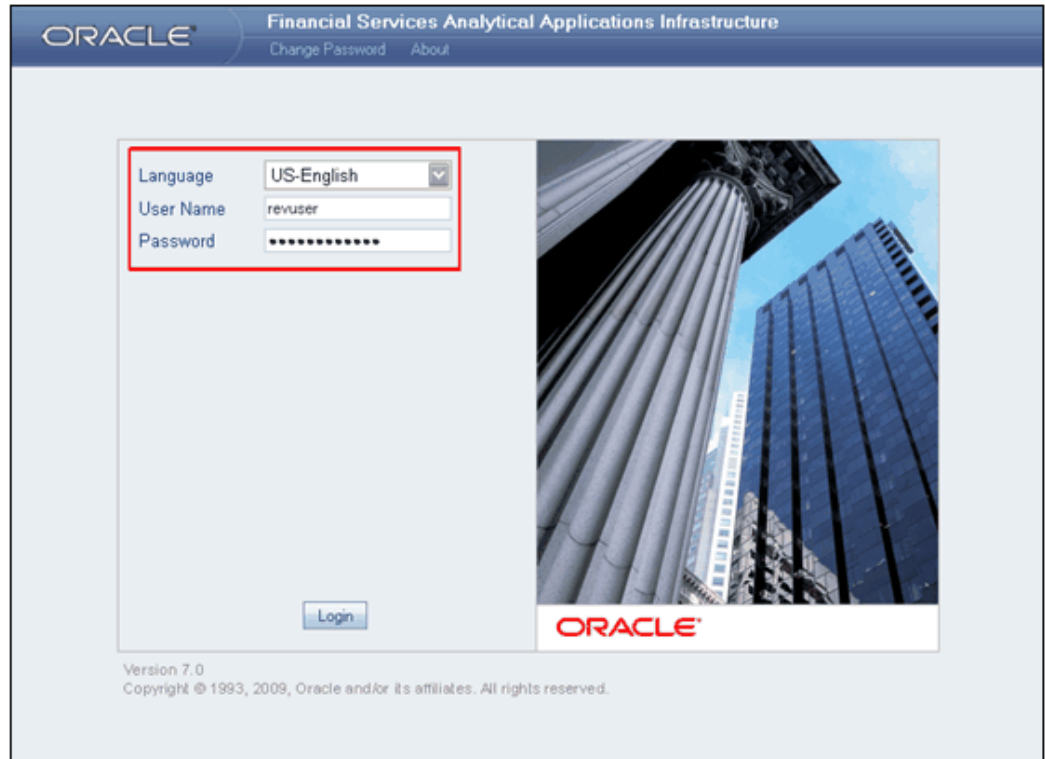
Evaluating customer value is becoming tougher. Customer relationships are becoming more complex, involving several bank personnel, and have extended time periods. Increasingly, banks are customizing and personalizing products and services. While decisions are becoming riskier, time windows available for decision and action are becoming smaller. Such real-world scenarios mandate timely and comprehensive decision support. Oracle's Customer Insight solutions deliver targeted and actionable customer analysis that help financial institutions make quick decisions in a rapidly evolving marketplace.

Getting Started

Your System Administrator will provide you with a link through which you can access OFSAA Infrastructure. OFSAAI security ensures that every user is permitted access to screens based on his or her role. Roles are designed to provide access to standardized sets of application functionality that are needed by defined groups of users. For detailed information on seeded roles and on defining your own Roles, see the *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

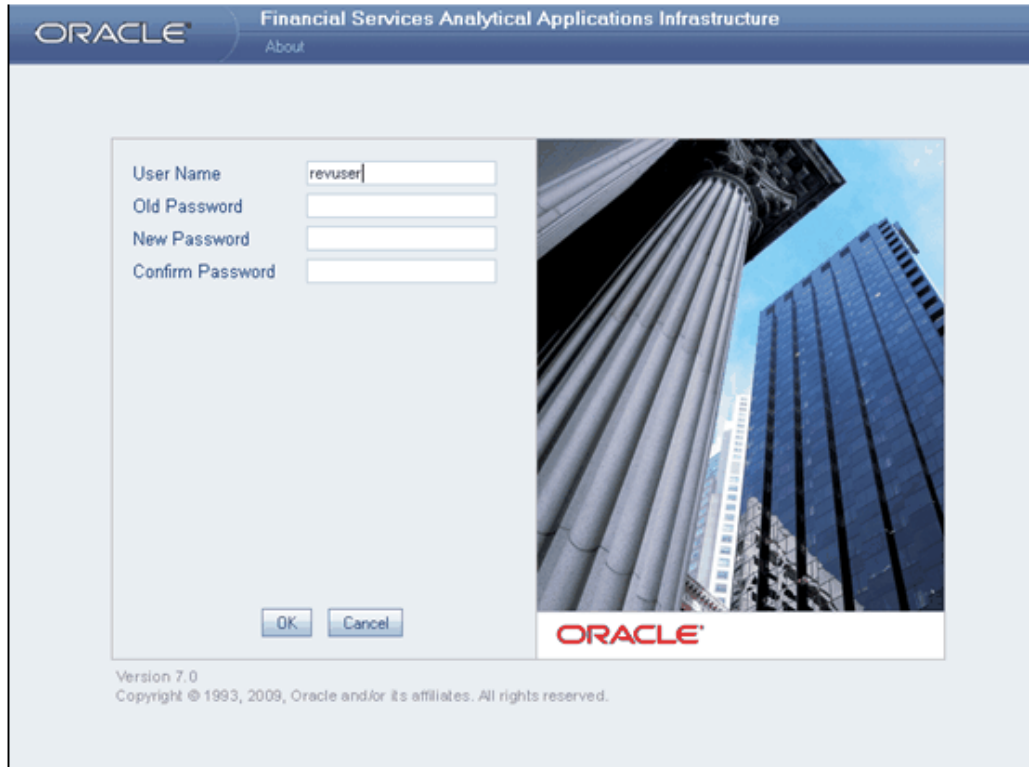
Logging on to OFSAA Infrastructure

On accessing OFSAAI, the login screen is displayed.



Enter your User ID and password and click Login. The first time you log in, you will be prompted to change your password.

Note: You can also click the Change Password link in the login page to change your password later.



To change your password, enter your old password, enter your new password, enter your new password again for confirmation, and then click OK. Click Cancel to exit the Change Password screen without changing the password.

OFSAA Infrastructure Password Requirements

OFSAAI passwords must:

- Contain at least 6 characters
- Contain a combination of numbers and characters without spaces.
- Be different from your 5 previous passwords
- Your User ID is locked after three consecutive unsuccessful logon attempts
 - Passwords are case sensitive
 - Passwords are displayed as asterisks (*) to ensure that the password is not revealed to other users

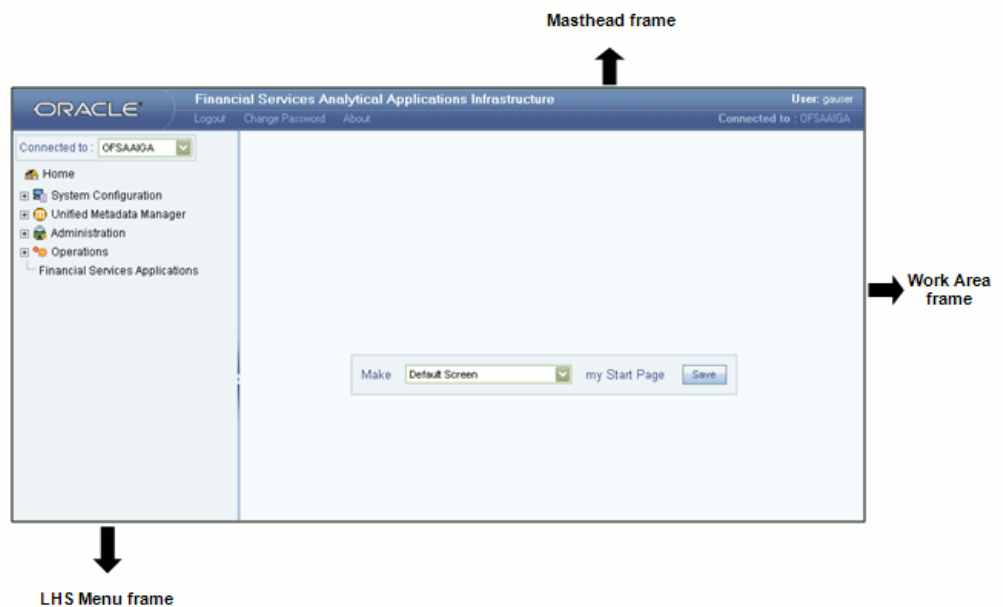
Contact your System Administrator if you encounter any of the following problems:

- Your User ID and password are not recognized
- You receive a message while logging in stating that your User ID has been disabled

OFSAA System Administration Home Page

After logging on, the display will initially default to the OFSAA Infrastructure home page (the Default Screen). Like all main menu pages, the OFSAA Infrastructure home page contains three areas or "frames":

- Masthead
- Left Hand Side (LHS) Menu
- Work Area



Masthead for the OFSAA Infrastructure Home Page

The Masthead for the OFSAA Infrastructure home page displays your Username and the name of the Domain to which you are currently connected. It also contains the following links:

- Logout
- Change Password
- About

Logout: Clicking on Logout logs you out of the system.

Change Password : Clicking on Change Password invokes the Change Password screen.

About : Clicking on About displays copyright information.

LHS for the OFSAA Infrastructure Home Page

On the LHS Menu for the OFSAA Infrastructure home page you may attach your working session to different Information Domains. The LHS Menu also displays submenus that include System Configuration, Unified Metadata Manager, Administration, and Operations.



Financial Services Applications page may contain the Administration, Master Maintenance, Asset | Liability Management, Funds Transfer pricing, Profitability Management, depending on your access rights

These topics as well as Information Domains are documented in the *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Work Area for the OFSAA Infrastructure Home Page

From here, you may reset your default start page. For most users, you will set your start page to Financial Services Applications.

Navigating to the Financial Services Applications Home Page

From the OFSAA Infrastructure Home Page, clicking on Financial Services Applications on the LHS Menu opens the Financial Services Applications home page. You may set your start page to default to Financial Services Applications. If you set your start page to default to Financial Services Applications then that is the first page you will see upon logging in.

Financial Services Applications Home Page

Financial Services Applications Masthead

Similar to the OFSAA Infrastructure masthead, the masthead for the Financial Services Applications home page displays your Username and the name of the Domain to which you are currently connected. In addition, it also displays your current processing

As-of-Date and contains links for:

- Global Preferences
- Home
- About



Global Preferences

Clicking on Global Preferences invokes the Global Preferences screen. Global Preferences items are used to configure your user interface. Here, you set your default application language and date format, and your desired Pagination Records. Pagination Records determine how many rows will be displayed on summary screens. If you select Pagination Records to be 25 records, then any screen displaying results in a tabular format will display a maximum of 25 records. To see the next set of 25 records, you would use the Next VCR button



Functional Currency and Signage are installation-time parameters that may not be reset in Global Preferences.

Normally, you will set preferences for yourself, but if you are logged in as an Administrator, you may set Global Preferences for All Users. When setting preferences for All Users, you may restrict the ability of non-Administrators to change a Global Preference item by deselecting the "Is Editable" checkbox. If a preference item is defined as "not editable", a user who is not an Administrator will inherit the value of the preference item that his Administrator has set for him and he will not have the ability to change it for himself.

Global Preferences		
^ Select Preferences For		
Show Preferences For	GAUSER	▼
^ Display		
Property Name	Property Value	Is Editable
Default Application Language	US-English	<input checked="" type="checkbox"/>
Date Format	M/d/yyyy	<input checked="" type="checkbox"/>
Pagination Records	25	<input checked="" type="checkbox"/>
^ Ledger		
Property Name	Property Value	
Functional Currency	US Dollar	
Signage	Natural Signage	
<input type="button" value="Apply"/> <input type="button" value="Cancel"/> <input type="button" value="Reset to Default"/>		

Home

Clicking on Home returns you to the OFSAA Infrastructure home page.

About

Clicking on About displays copyright information.

Financial Services Applications LHS Menu

The LHS Menu for Financial Services Applications displays the modules which your firm has installed and to which you have access. The modules that you can access are a function of your Role. You can expand the menu to display submenus with additional options (to view a submenu, click on



Work Area

Initially blank, the items displayed within the Work Area for the Financial Services Applications home page is determined by the menu items you select from the LHS.

Overview of OFSAA Infrastructure

OFSAA Infrastructure

OFSAA Infrastructure includes facilities for creating and maintaining

- Dimensional reference data
- Interest rate & currency exchange rate data
- Process tuning data

OFSAA Infrastructure also includes functionality for building and maintaining rules that may be used by any Oracle Financial Services Analytical Application. These common rule objects include:

- Expressions
- Hierarchies
- Filters

The analytical applications that you see on the Left Hand Side (LHS) of the Financial Services Applications home page will depend on your logon privileges and on the OFSAA modules that have been installed for your environment, but you will always see the OFSAA Infrastructure components under Financial Services Applications > Master Maintenance.



The following chapters document how to navigate the OFSAA user interface to create and maintain dimensional reference data, interest rate & currency exchange rate data, and process tuning data; and to create and maintain OFSAA Infrastructure rules: Expressions, Hierarchies, and Filters.

Chapter	Subject
Chapter 3	OFSAA Administration
Chapter 4	OFSAA Data Entry Forms and Queries
Chapter 5	OFSAA Attributes
Chapter 6	OFSAA Dimension Members
Chapter 7	OFSAA Hierarchies
Chapter 8	OFSAA Filters
Chapter 9	OFSAA Expressions
Chapter 10	OFSAA Rate Management

The remainder of this chapter documents:

- Overview of Dimensionality in OFSAA
- Overview of OFSAA Rules
 - Hierarchies

- Filters
- Expressions

Overview of Dimensionality in OFSAA

Dimensions are used to stratify your business data for processing or reporting purposes. For example, at a minimum General Ledger systems are typically stratified by a General Ledger dimension, an organization or cost center dimension, and a time dimension. Customer account level data will normally have these same dimensions but are often additionally segmented by dimensions such as Product or Customer. You may wish to construct models using a specialized product dimension or other customized dimensions such as geography, cost pool, transaction, activity or channel.

Dimensions are comprised of lists of members. For example, the Organizational Unit dimension might be comprised of Branch #1, Branch #2, Branch #3, etc. Some dimensions may contain tens or even hundreds of thousands of members (e.g., a large organizational or customer dimension) while others may contain as few as two members (e.g., a simple product-type dimension with values of Fixed and Variable).

The member values or "Chart of Accounts" for each dimension may be maintained either internally within the OFSAA Infrastructure or externally.

Internally

OFSAA Infrastructure includes functionality for Adding, Viewing, Editing, or Deleting dimension member values. Which of these functions you can access depends on your logon privilege and on the dimension with which you wish to work. For details, on the creation and maintenance of Dimension Members, see Chapter 6: OFSAA Dimension Members.

Externally

You may choose to source and maintain some Charts of Accounts from external systems such as your General Ledger, a Data Warehouse, or from some other external master data management system. See *Oracle Financial Services Analytical Applications Data Model Utilities User Guide* for details on loading dimensional data from external systems.

Combination

You may also choose to maintain some Chart of Account values from an external source while maintaining other Chart of Account values internally.

Referential Integrity

You may have dimension member values defined in your Chart of Accounts that do not

exist in your business data, particularly if the dimension member values are used as attribute values (see discussion of attributes below). But you would never want to have an occurrence of a dimension member value in your business data that did not exist in the dimension's Chart of Accounts. When you load business data into OFSAA, you need assurance that there are no dimension member values present in the business data that are not defined in your Chart of Accounts. For details on ensuring referential integrity between your business data and your Chart of Accounts data, see Installation and Configuration Guide.

Dimension Attributes

Some OFSAA dimensions support attributes. Dimension attribute values are used to qualify dimension members. For example, a cost center, say Branch #1, might have a Headcount attribute with a value of 32 and a Volume attribute with a value of High. A product dimension member, say 30-year fixed rate jumbo LIBOR mortgage, might have a Rate attribute with a value of LIBOR, a Size attribute with a value of Jumbo, and a Loan Type attribute of Fixed. A General Ledger account, say Benefit Expense, might have an Account Type attribute with a value of Non-Interest Expense.

Like dimensions, attributes are used to stratify your business data for processing or reporting purposes. Some dimension attributes are seeded within the OFSAA data model and are used extensively in processing. You may define as many user-defined attributes as you need.

OFSAA Infrastructure includes functionality for Adding, Viewing, Editing, or Deleting dimension attributes. Which of these functions you can access depends on your logon privilege and on the dimension with which you wish to work. For details on the creation and maintenance of dimension attributes, see Chapter 5: OFSAA Dimension Attributes.

Once an attribute has been defined for a dimension, attribute values may be assigned to individual dimension member values. These attribute values may be open-ended (dates, numbers, or strings) or may be restricted to a defined set of members (see further discussion below; also see Chapter 5: OFSAA Dimension Attributes).

Hierarchies

Some OFSAA dimensions support hierarchies. Hierarchies may be used to provide sophisticated stratification for either processing or reporting purposes. For example, an organizational hierarchy might start with a Division level containing Western Region, Eastern Region, and Southern Region; the next level down within the hierarchy might be state or county. A product hierarchy might begin with branches for Asset vs. Liability vs. Service products; under the Asset branch, you might define additional branches for Mortgage Lending, Commercial Lending, Consumer Lending, etc. Hierarchies are used extensively in OFSAA models to assign methods to products and to support allocation methodologies.

Like dimension members, dimension hierarchies may be maintained either internally within the OFSAA Infrastructure or externally.

Internally

OFSAA Infrastructure includes functionality for Adding, Viewing, Editing, or Deleting hierarchies. Which of these functions you can access depends on your logon privilege and on the hierarchy with which you wish to work. For details, on the creation and maintenance of hierarchies, see Chapter 7: OFSAA Hierarchies.

Externally

You may choose to source and maintain some or all of your hierarchies from external systems such as your General Ledger, a Data Warehouse, or from some other external master data management system, such as Oracle Data Relationship Management (DRM). See *Oracle Financial Services Analytical Applications Data Model Utilities User Guide* for details on loading hierarchy data from external systems.

Combination

You may also choose to maintain some hierarchies from an external source while maintaining other hierarchies internally.

Rollup Members for Dimensions Supporting Hierarchies

For dimensions that support hierarchies, every dimension member value has the property of being either a "leaf" value (child-only or last descendent child value) or a "rollup node" value. For example, if Branch #1, Branch #2, and Branch #3 all belonged to the West rollup point of an organizational hierarchy, then West would also be a dimension member value of the Organizational Unit dimension. Your business data is typically expressed at the "leaf" level.

Dimension Types

OFSAA supports 3 fundamentally different kinds of dimensions

- Key Processing Dimensions
- Standard Dimensions
- Simple Dimensions

Key Processing Dimensions

- Are accessible as modeling dimensions for all of the OFSAA analytical engines

- Are expressed as columns in nearly all of your business fact tables
- Support both attributes and hierarchies

Metadata for Key Processing Dimensions is stored in four tables:

- A base table (e.g., DIM_PRODUCTS_B)
- A translation table (e.g., DIM_PRODUCTS_TL)
- An attribute table (e.g., DIM_PRODUCTS_ATTR)
- A hierarchy table (e.g., DIM_PRODUCTS_HIER)

Base tables store basic information about each dimension member and translation tables store names and descriptions for each dimension member in multiple languages (see *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on multi-language support). Attribute tables store one or many attribute values for each dimension member. Hierarchy tables store one or more hierarchies for each dimension (you may define as many hierarchies as you wish for any dimension that supports hierarchies).

Seeded Key Processing Dimensions

OFSAAI is seeded with 5 Key Processing dimensions:

- Financial Element
- Organizational Unit
- General Ledger Account
- Common Chart of Accounts
- Product

Among the 5 seeded Key Processing dimensions, only the Financial Element dimension is pre-populated with a Chart of Accounts, but it is only populated in the range between 0 and 10,000 (For more details on the seeded Chart of Accounts for the Financial Element dimension see *Oracle Financial Services Profitability Management (OFSPM) User Guide*). This is a reserved range in which you may not add new members, or edit or delete existing members. You may add user-defined Financial Elements anywhere outside the reserved range.

User Defined Key Processing Dimensions

See *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on adding your own user-defined Key Processing dimensions.

Standard Dimensions

Standard dimensions may support attributes and/or hierarchies depending on how they are configured, but are not used as processing dimensions within any of the analytical application engines.

Like Key Processing Dimensions, metadata for Standard Dimensions is stored in a base table and in a translation table. A Standard Dimension may or may not have an attribute table or a hierarchy table depending on how it is configured. Within the OFSAA modules, Standard dimensions that are defined as having a hierarchy table will support hierarchies and Standard dimensions that are defined as having an attribute table will support attributes. See the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* and *Oracle Financial Services Analytical Applications Data Model Data Dictionary* for additional information.

Seeded Standard Dimensions

OFSAA is seeded with 2 Standard Dimensions

- Country
- Customer

Both dimensions support attributes and hierarchies. Default member values are provided for the Country dimension, but no values are provided for the Customer dimension.

User Defined Standard Dimensions

See the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on adding user-defined Standard dimensions.

Simple Dimensions

Sometimes referred to as Code dimensions, Simple dimensions are "lists of values" that support neither attributes nor hierarchies. Their 3 key uses are:

- Reserved for use within the analytical application engines
- Stratifying your data for process or report filtering purposes
- Serving as "lists of values" when used as attributes

The OFSAA Data Model comes with more than 150 seeded Simple dimensions. Many of these seeded Simple dimensions are also seeded with dimension members. Unlike Key Processing dimensions and Standard dimensions, Simple dimensions are stored in two tables:

- A code table (e.g., AMRT_TYPE_CD)
- An Multi-Language Support or MLS table (e.g., AMRT_TYPE_MLS)

Again, see *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on multi-language support.

Reserved Simple Dimensions

Accrual Basis Code is an example of a seeded Simple dimension that is used extensively by the application modules. It is seeded with a small list of values (such as 30/360, Actual/360, Actual/Actual, etc.) and its value set may not be modified.

Amortization Type Code is another example of a reserved Simple Dimension. Amortization Type Code is populated with reserved values that the Cash Flow engine interprets, and its value set may not be modified. Many other Simple Dimensions are reserved and may not be modified.

Simple Dimensions Used for Processing or Reporting Purposes

This kind of Simple Dimension cannot be used directly by the application engines, but they are accessible to OFSAA Filter rules (for more information on Filter rules, see Chapter 8: OFSAA Filters).

Credit Rating is an example of a seeded Simple Dimension that may be used for processing or reporting purposes. You may, for example, wish to allocate risk equity to individual instruments as a function of Credit Rating. The seeded values for Credit Rating are Moody's credit ratings, but you are free to completely redefine the membership of this dimension. Geographic Location is another example. Geographic Location is pre-populated with US States and Canadian provinces, but you are free to completely redefine the list of geographic locations.

Simple Dimensions Used as Attribute Domains

Both seeded and user-defined attributes often utilize a Simple Dimension to provide a list of values. For example, you might create an Adjustable Type attribute on your Product dimension and you might want this attribute to be limited to the values of Fixed, Variable, or Administered. In this case, you might first build a Simple Dimension called Type whose dimension members were limited to three values: Fixed, Variable, or Administered. Next you could assign the Type dimension to be the domain of your new Adjustable Type attribute.

See *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* and *Oracle Financial Services Analytical Applications Data Model Data Dictionary* for additional information on which Simple Dimensions you may extend or modify and on how to add your own Simple Dimensions to the data model.

Overview of Attributes

OFSAA Infrastructure includes functionality for Adding, Viewing, Editing, or Deleting dimension attributes. Which of these functions you can access depends on your logon privilege and on the dimension with which you wish to work. For details, on the creation and maintenance of Dimension Attributes, see Chapter 5: OFSAA Attributes.

Attributes

The seeded OFSAA Key Processing Dimensions have a number of seeded or seeded & required attributes. For example, the Common Chart of Accounts dimension includes an Account Type attribute and an Accrual Basis attribute; the Financial Element dimension includes an Aggregation Method attribute. Some of these attributes have important implications in processing within OFSAA.

You may add Attributes to any Key Processing Dimension or to any Standard Dimension that supports Attributes (see sections above describing Key Processing Dimensions and Standard Dimensions).

One of the important properties of an Attribute is its Data Type. OFSAA Infrastructure supports Dimension Attribute Data Types of:

- Date, String, or Number
- Dimension

Unbounded & Bounded Attribute Data Types

Dimension attribute data types may be either bounded or unbounded. The Date, String, and Number type are unbounded, i.e., there is no predetermined set of attribute values. A Date attribute value may be any valid date, a String attribute value may be any string up to 30 characters in length, and a Number attribute value may be any number. Examples of these kinds of attribute data types might include:

- Cost Center Open Date (a Date attribute on the Organizational Unit dimension)
- Product Memo (a String attribute on the Product dimension)
- Cost Center Headcount (a Number attribute on the Organizational Unit dimension)

Unlike attributes having the Date, String, or Number data type, attributes whose data type is Dimension have defined sets of values. For example, the Product dimension has a seeded attribute called Accrual Basis the data type of which is Dimension. The Accrual Basis dimension is seeded with 8 values. Accrual Basis is a restricted dimension (you may View Accrual Basis dimension members but you may delete them or add new accrual bases), but whenever you assign an Accrual Basis attribute value to one of your Product dimension member values, you must select from the list of 8 available Accrual

Bases.

Overview of OFSAA Rules

OFS Analytical Application models are constructed using combinations of OFSAA rules. For example:

- An Allocation rule might utilize a Hierarchy Filter rule, an Expression rule, and a Static Table Driver rule
- A Transfer Pricing rule might utilize a Hierarchy rule, a Data Element Filter rule, and a Prepayment rule
- A Data Element Filter rule might utilize an Expression rule
- A Group Filter rule always incorporates one or more underlying Data Element Filter rules
- A Hierarchy Filter rules always utilize an underlying Hierarchy rule

The advantage of constructing models from discrete rule components is that individual rules may be re-used dozens or even hundreds of times. For example, if you wish to build a large series of allocation rules which operate on non-interest expense data in the Western region, you may build filters for (1) non-interest expense and (2) the Western region and then utilize these filters in every allocation rule. As another example, if you wanted to assign the same transfer pricing method and assumptions to all mortgage products, you could build a Hierarchy on the product dimension containing a Mortgage Products rollup point and assign your method and assumptions at the rollup level. You could subsequently utilize the same Hierarchy rule for allocation processing or reporting purposes.

Many rule types are specific to individual analytical applications (e.g., Transfer Pricing rules, Asset/Liability Management rules, Allocation rules, etc.) while OFSAA Infrastructure rules are shared across all OFS applications. Rule types that are shared across all applications include:

- Hierarchies
- Hierarchy Filters
- Data Element Filters
- Group Filters
- Expressions

Dimensions, dimension members, attributes, and currency exchange rates are also shared across all applications.

Dependencies

OFSAA rules often depend on other rules for some or all of their data or usefulness. For example, an Allocation rule may depend on a Data Element Filter rule to select and focus data in a meaningful way. If that Data Element Filter is deleted, then the Allocation rule becomes unusable. OFSAA applications track such dependencies and ensure that users may not delete rules that are consumed by other rules. Additionally, rule summary screens that present lists of rules that you have defined, offer functionality for you to generate reports on rule interdependency.

OFSAA Filters

OFSAA Infrastructure supports three kinds of filtering:

- Data Element Filters
- Group Filters
- Hierarchy Filters

Data Element Filters

Data Element Filters are used to select and focus data. For example, you may transfer price some financial instruments at their source and may therefore wish to ensure that you do not overwrite the transfer rates for any instruments that already have a non-zero transfer rate. In such a case, you could construct a Data Element Filter to isolate only those instruments having a non-zero transfer rate. As another example, you may wish to allocate a charge to demand deposit accounts having small balances. In this case, you could construct a Data Element Filter to focus on just those instrument records having balances less than your chosen threshold.

Group Filters

Group Filters are used to join together one or more Data Element Filters. For example, if you built one Data Element Filter that focused on balances less than 10,000 and a second Data Element Filter that focused on accounts whose origination date was prior to 2009, a Group Filter built on the two Data Element Filters would focus on accounts with balances less than 10,000 AND whose origination dates were prior to 2009.

Hierarchy Filters

Hierarchy Filters allow you to focus on data that rolls up to one or more points within a chosen hierarchy. You may also focus on "leaf" level data or a combination of "leaf" level and rollup levels. For example, if your organization had a Western, Northern, Southern, and Eastern division, you could construct a Hierarchy Filter that focused on data belonging to branch 1, 2, or 7 within the Eastern division plus any data belonging to the Northern division.

OFSAA Expressions

Expressions represent formulas for combining data from your data model (e.g., Column A divided by Column B times Column C). The results of Expressions may be invoked within a number of OFSAA rule types (e.g., Data Element Filters, Allocation rules, etc). For details on building and maintaining Expressions, see Chapter 9: Expressions.

Folders

One of the fundamental properties of any OFSAA rule is the Folder in which it is stored. Your System Administrator will configure your user ID to have access to one or more folders in which you can store your rules. Your access rights will likely be similar to co-workers who have a similar business role. For details on security management and defining Segment Maintenance in OFSAA, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Storing rules in folders gives you the means to segregate your rules for functional or security considerations. For example, you may wish to:

- Set up folders to store Transfer Pricing rules that are separate from folders you have built for Profitability Management rules and that are also separate from folders you have built for Asset/Liability Management rules
- Establish some folders for rules you are in the process of developing and testing and other folders for fully tested, production ready rules
- Segregate some rules that are fundamental to the definition of other rules (e.g., some Data Element Filters may be used in dozens or hundreds of other rules) in order to ensure that access to those fundamental rules is highly controlled
- Segregate your hierarchies, which are also frequently fundamental to OFSAA models, into a restricted-access folder

Visibility of Rules

Every navigation path to view a rule in OFSAA begins with a Summary screen. Within the Summary screen for each rule type, a user may browse through all of the rules that are stored within Folders to which the user has access. From each Summary screen, users may be granted the ability to Add, Edit, View, or Delete rules.

When building rules in an OFS Analytical Application, you frequently call upon other OFSAA rules (e.g., a Data Element Filter nested within an Allocation rule or a Hierarchy utilized within a Transfer Pricing rule). When nesting a child rule within a parent rule you must specify the child rule by its Name and Folder (where both Name and Folder are presented in drop-down list boxes). In this context, the Folder drop-down list box for every user will include every Folder in the Information Domain regardless of his

Folder access rights. This means that a user may invoke a child rule from any Folder even if he cannot access that child rule directly through its Summary screen.

Additionally, whenever a user nests a parent rule within a child rule, the OFSAA user interface provides the user the ability to view a read-only version of the underlying child rule.

Access Type

Another fundamental property of every OFSAA rule is its Access Type.



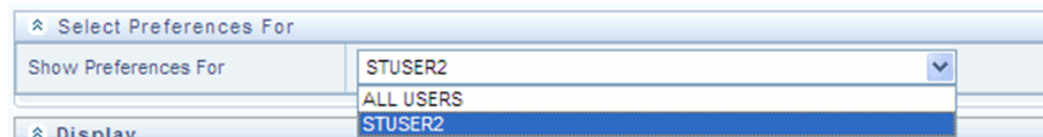
Access Type may be set to either Read/Write or Read Only. Only the "creator" or "owner" of a rule may modify the rule if it is set to Read Only. The user ID under which a rule is initially built is the owner of a rule. You may modify a rule that you do not own provided that:

- The rule has been stored with the Read/Write access type
- You have been granted Edit privilege for the rule's type
- You have been granted access to the Folder in which the rule is stored

Again, for details on security management in OFSAA, see *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide*.

Application Preferences

In addition to Global Preferences (see "Chapter 1: Introduction"), each of the OFS Analytical Applications has its own local application preferences. In the same way as in Global Preferences, Application Preferences (for each application) employs a "delegation" model that allows Administrators to set some preference items for all users while allowing non-administrative users to personalize other preference items.



Normally, you will set Application Preferences for yourself, but if you are logged in as an Administrator, you may set Application Preferences for all users of an application. When setting preferences for all users, you may restrict the ability of non-Administrators to change an Application Preference item by deselecting the "Is Editable" checkbox. If a preference item for a non-administrative user is defined as "not editable", a user who is not an Administrator will inherit the value of the preference

item that his Administrator has set for him and he will not have the ability to change it for himself.

Global Preferences

^ Select Preferences For
Show Preferences For: **ALL USERS**

^ **Display**

Property Name	Property Value	Is Editable
Default Application Language	US-English	<input checked="" type="checkbox"/>
Date Format	yy/MM/dd	<input checked="" type="checkbox"/>
Pagination Records	20	<input checked="" type="checkbox"/>

^ **Ledger**

Property Name	Property Value
Functional Currency	US Dollar
Signage	Natural Signage

Application Preferences

^ Select Preferences For
Show Preferences For: **ALL USER**

Active for Master Maintenance:

^ **Processing - General**

Property Name	Property Value	Is Editable
As of Date	11/26/09	<input checked="" type="checkbox"/>
Default Total Error Message Limit	250	<input checked="" type="checkbox"/>
Default Error Message Limit Per Item	25	<input checked="" type="checkbox"/>
Debugging Output Level	Do not output SQL to log file	<input checked="" type="checkbox"/>

^ **Processing - Application Specific**

Property Name	Property Value	Is Editable
Enforce Mass Undo	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input checked="" type="checkbox"/>

^ **Assumption Management Defaults**

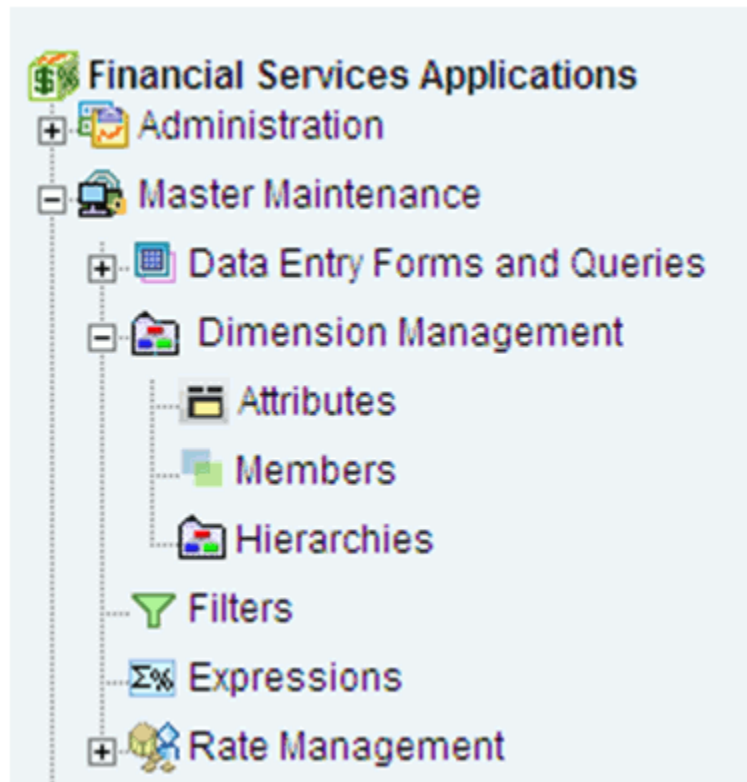
Property Name	Property Value	Is Editable
Folder Name	SEGTEST	<input checked="" type="checkbox"/>
Access Type	<input type="radio"/> Read <input checked="" type="radio"/> Read/Write	<input checked="" type="checkbox"/>

While most Application Preferences items are unique to the application to which they belong, two properties are common to Application Preferences for each of the OFS Analytical Applications: Folder Name and Access Type.

^ Assumption Management Defaults		
Property Name	Property Value	Is Editable
Folder Name	GASEGR2	<input checked="" type="checkbox"/>
Access Type	<input type="radio"/> Read <input checked="" type="radio"/> Read/Write	<input checked="" type="checkbox"/>

Having the Folder Name and Access Type properties set at the application level allows you to have a different default Folder and Access Type for each OFS Analytical Application. Within the Left Hand Side or LHS menu, all OFSAA Infrastructure rules

(Hierarchies, Filters, & Expressions) are maintained under Master Maintenance.



Since Folder and Access Type are not Global Preference items, a user must select one application's set of Application Preferences to be "Active" to govern the default values of Folder and Access Type for Oracle Financial Services Analytical Applications Infrastructure rules. This is done by selecting one of your Application Preference sets to be the one that is "Active for Master Maintenance".

OFSSA Administrative Reporting

Introduction

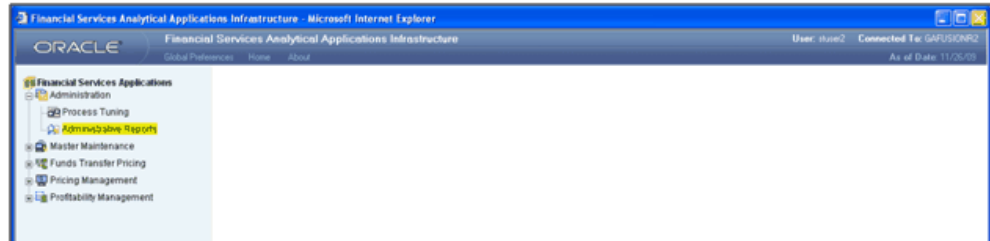
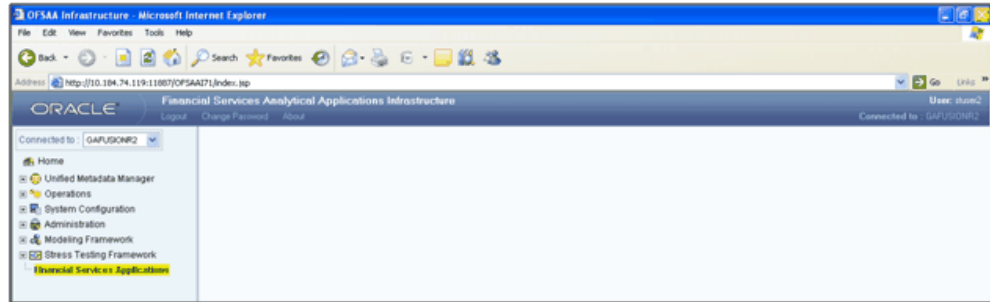
Administrative Reports provide reporting functionality for the Administrators of Oracle Financial Services Analytical Applications (OFSSA) to monitor, analyze, and correct data.

The System Administrator or users with Administrative privileges can view the Administrative Reports.

Logging in to the Administrative Reports

Procedure

1. Click, Financial Services Applications >Administration >Administrative Reports. Refer to the following screenshots.



2. The Administrative Reports - Admin Home section is displayed.

ORACLE Interactive Dashboards Admin Home Data Quality Object Registration Security

Welcome, Administrator Dashboards - Admin Home - View Products - Settings - Log Out

Admin Home

Instrument Name
LINK Go

Data Quality

Record Counts over Time
Time run: 12/14/2009 6:10:27 PM

As Of Date: 31 Dec 2014

Data Stratification - Current Net Rate
Time run: 12/14/2009 6:43:01 PM

Current Net Rate Bucket	Current Book Balance	Record Count
2 - 4 - 8000	1,000,000.00	1
Grand Total	1,000,000.00	1

Data Stratification - Current Book Balance
Time run: 12/14/2009 6:43:01 PM

Current Book Balance Bucket	Current Book Balance	Record Count
1 - 100001 - 100000	1,000,000.00	1
Grand Total	1,000,000.00	1

Data Stratification - Origination Date
Time run: 12/14/2009 6:43:01 PM

Origination Date Bucket	Current Book Balance	Record Count
1 - 100001 - 100000	1,000,000.00	1
Grand Total	1,000,000.00	1

Data Stratification - Maturity Date
Time run: 12/14/2009 6:43:01 PM

Maturity Date Bucket	Current Book Balance	Record Count
1 - 100001 - 100000	1,000,000.00	1
Grand Total	1,000,000.00	1

Object Registration

Registered Objects Summary
Time run: 12/14/2009 6:10:27 PM

Classification	Classification Code	Classification Description	No of Registered Objects
Instrument	20	Sub-type for all instrument tables	21
Ledger Book	60	Ledger Book	1
Portfolio	100	Portfolio of instrument tables	6
M.S. Descriptors Reserved	197	M.S. Description table for Reserved Code values	6
Codes Reserved Base 90	198	Base table for Reserved Code values	11
TP Cash Flow	200	Classification to identify tables that qualify for TP Cash Flow methods	21
TP Non-Cash Flow	210	Classification to identify tables that qualify for TP Non-Cash Flow methods	21
Codes User Defined Base 90	204	Base table for User Defined Code columns	17
M.S. Descriptors User Defined	206	M.S. Description table for User Defined Code columns	19
Transaction Profitability	300	Classification to identify transaction summary tables that will be used for profitability	20
Instrument Profitability	310	Classification to identify instrument tables that will be used for profitability	20
TP Cash Costing	370	Transfer Pricing Option Costing processing	11
PA Lookup Tables	500	Lookup tables used in PA Lookup Table G	4
Break Funding	550	Break Funding instrument for TP	1
Derivative Instruments	600	Classification to identify derivative instruments	6

Security

User ID: BHARATH User Name: Bharath Go

User Privileges
Time run: 12/14/2009 6:43:01 PM

User Name	Group Name	Segment Name	Role Name	Function Name
Bharath	PGADMIN	DEMOSES		ITL Analyst Data Quality Admin Designer User ODS Fusion Add Attributes Fusion Add Hierarchies Fusion Add Members Fusion Attribute Home Page Fusion Attributes - View Dependent Data Fusion Query Attributes

Records 1 - 10

Interactive Dashboards in Administrative Reports

In the Administrative Reports window, there are four dashboard links:

- Admin Home
- Data Quality
- Object Registration

- Security

Admin Home

The Admin Home section is displayed by default when you login. If you are in any other section, click the Admin Home link in the top of the Administrative Reports header, to go to the Admin Home section. Admin Home displays the summary of reports from the other three links.

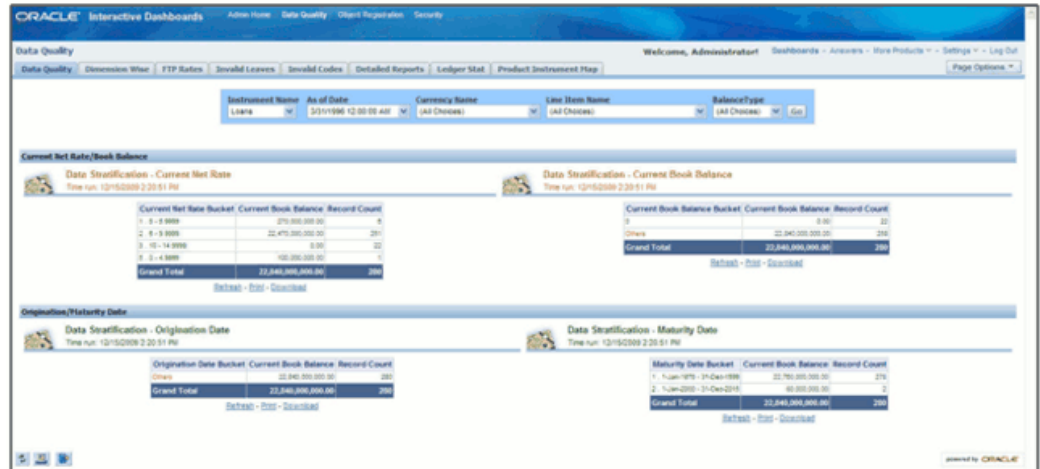
Access Permissions

Following are the steps to access permissions to include Defi Forms for the Admin BI Buckets entries.

1. Login to the Oracle Financial Services Analytical Applications Infrastructure
2. Click the Operations > Financial Services Applications
3. Go to > Master Maintenance > Data Entry Forms and Queries > Forms Designer
4. Click the Assign Rights Radio button
5. Select Admin BI in the Available Applications drop down box
6. Select the 4 UI forms (one at a time) in the Available Forms drop down box (For example, Bucket definition of Book Balance)
7. Click Next
8. Select the users from the Available User List
9. Select the relevant check boxes from View, Add, Edit, Delete, and All above.
10. Click Save Access Rights. You will get the message that user is mapped successfully.
11. Click Back to Forms Designer.
12. Repeat the steps 4 to 11 for other 3 forms (Bucket Definition Maturity Date, Bucket Definition net Rate, Bucket Definition Origination Date)

Data Quality

To go to the Data Quality reports, click Data Quality link at the top of the Administrative Reports. The following window is displayed.



The Data Quality reports help you to validate the quality of the underlying fact data. By going through the reports, you can identify data discrepancies, missing data, incorrect data, and so on and then undertake the necessary steps to rectify any issues. These data reports can be customized to fit your needs by defining suitable bucket range values as described above.

The four data buckets available are:

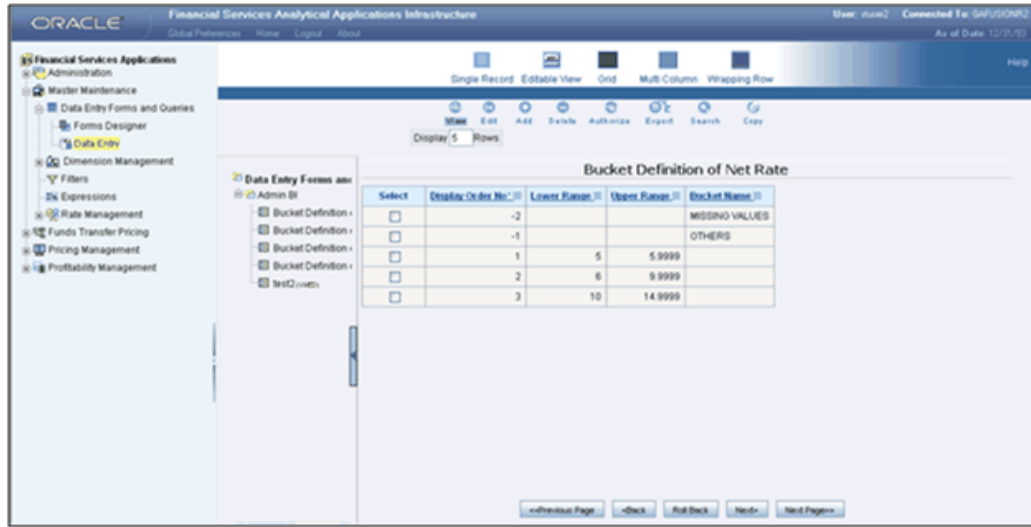
- Book Balance Bucket Definition
- Maturity Date Bucket Definition
- Net Rate Bucket Definition
- Origination Date Bucket Definition

These values can be defined in the following section:

Financial Services Applications > Master Maintenance > Data Entry Forms and Queries > Data Entry.

Refer the following screenshot.

- The seeded values are Display Order No => -1 and -2. You should not delete or edit these seeded values.
- Make sure there is no row with 'Display order No.' column with value 0 (zero). In case of AIX environment, display order No. might be generated with '0' (zero value). Delete this row using 'Delete option'.



Data Quality Dashboard

Data Quality Dashboard page contains eight tabs.

Data Quality Tab


This section contains a prompt to filter the data based on the value selected from the dropdown box.

You can select a value from the drop down list. Based on the selected values, the data is filtered.


There are four reports in this window.

1. Data Stratification - Current Net Rate

The current net rate details for each bucket range value of the Instruments are displayed here.


Current Net Rate/Book Balance		
		
Data Stratification - Current Net Rate		
Time run: 12/11/2009 4:16:03 PM		
Current Net Rate Bucket	Current Book Balance	Record Count
1 . 5 - 5.9999	270,000,000.00	8
2 . 6 - 9.9999	22,470,000,000.00	251
3 . 10 - 14.9999	0.00	22
5 . 0 - 4.9999	100,000,000.00	1
Grand Total	22,840,000,000.00	280
Refresh - Print - Download		

To view a detailed report, click the bucket range for which you need the detailed report. The detailed report for the selected bucket range is displayed.

Data Quality										
										
Detailed Report - Current Net Rate										
Time run: 12/11/2009 4:20:36 PM										
ID Number	Identity Code	Account Number	Product ID	Org unit ID	GL Account ID	Common COA ID	Origination Date	Maturity Date	Cur Net Rate	Current Book Balance
10033	19980331	L-1000000032	135	1	300120	30012	31-Mar-1996	01-Apr-1996	4.5000	100,000,000.00
Grand Total										100,000,000.00
Return - Refresh - Print - Download										

2. Data Stratification - Current Book Balance

The current book balance details for each bucket range value for the Instruments are displayed here.

Data Stratification - Current Book Balance		
		
Time run: 12/15/2009 4:05:46 PM		
Current Book Balance Bucket	Current Book Balance	Record Count
1 . 101 - 1000	6,499.00	7
2 . 1001 - 10000	22,146.00	5
3 . 10001 - 100000	4,769,629.00	91
4 . 100001 - 1000000	332,594,117.00	660
Others	80,772,827,473.00	1619
Grand Total	89,110,218,864.00	2372
Refresh - Print - Download		

To view a detailed report, click the bucket range for which you need the detailed report. The detailed report for the selected bucket range is displayed.

Data Quality
Detailed Report - Current Book Balance
 Time run: 12/11/2009 4:36:27 PM

ID Number	Identity Code	Account Number	Product ID	Org unit ID	GL Account ID	Common COA ID	Origination Date	Maturity Date	Cur Net Rate	Current Book Balance
10033	19900331	L-1000000032	135	1	300120	30012	31-Mar-1996	01-Apr-1996	4.5000	100,000,000.00
10059	19900331	L-22	135	0	14710	3002	31-Aug-1993	31-Aug-1998	5.0000	50,000,000.00
10302	19900331	L-7	135	0	14710	3001	31-Aug-1993	31-Aug-1998	5.0000	40,000,000.00
10058	19900331	L-21	135	0	14710	3002	31-Jul-1993	31-Jul-1998	5.5000	50,000,000.00
10090	19900331	L-23	135	0	14710	3002	30-Sep-1993	30-Sep-1998	5.5000	50,000,000.00
10301	19900331	L-6	135	0	14710	3001	31-Jul-1993	31-Jul-1998	5.5000	40,000,000.00
10303	19900331	L-8	135	0	14710	3001	30-Sep-1993	30-Sep-1998	5.5000	40,000,000.00
10019	19900331	L-9	135	0	14710	3001	31-Oct-1993	31-Oct-1998	5.0000	40,000,000.00
10067	19900331	L-20	135	0	14710	3002	30-Jun-1993	30-Jun-1998	5.0000	45,000,000.00
10061	19900331	L-24	135	0	14710	3002	31-Oct-1993	31-Oct-1998	5.0000	55,000,000.00
10283	19900331	L-5	135	0	14710	3001	30-Jun-1993	30-Jun-1998	5.0000	40,000,000.00
10017	19900331	L-10	135	0	14710	3001	30-Nov-1993	30-Nov-1998	5.5000	40,000,000.00
10055	19900331	L-19	135	0	14710	3002	30-May-1993	31-May-1998	5.5000	45,000,000.00
10062	19900331	L-25	135	0	14710	3002	30-Nov-1993	30-Nov-1998	5.5000	55,000,000.00
10068	19900331	L-4	135	0	14710	3001	30-May-1993	31-May-1998	5.5000	40,000,000.00

Return - Refresh - Print - Download Records 1 - 15

3. Data Stratification - Origination Date

The origination date details for each bucket range value for the Instruments are displayed here.

Origination/Maturity Date
Data Stratification - Origination Date
 Time run: 12/11/2009 4:16:03 PM

Origination Date Bucket	Current Book Balance	Record Count
Others	22,840,000,000.00	280
Grand Total	22,840,000,000.00	280

Refresh - Print - Download

To view a detailed report, click the bucket range for which you need the detailed report. The detailed report for the selected bucket range is displayed.

Data Quality
Detailed Report - Origination Date
 Time run: 12/11/2009 4:39:25 PM

ID Number	Identity Code	Account Number	Product ID	Org unit ID	GL Account ID	Common COA ID	Origination Date	Maturity Date	Current Book Balance
10016	19900331	L-1	135	0	14710	3001	31-Mar-1993	31-Mar-1998	40,000,000.00
10017	19900331	L-10	135	0	14710	3001	30-Nov-1993	30-Nov-1998	40,000,000.00
10018	19900331	L-11	135	0	14710	3001	31-Dec-1993	31-Dec-1998	40,000,000.00
10019	19900331	L-9	135	0	14710	3001	31-Oct-1993	31-Oct-1998	40,000,000.00
10028	19900331	L-3	135	0	14710	3001	30-Apr-1993	30-Apr-2003	40,000,000.00
10029	19900331	L-1000000002	135	1	14710	700000002	31-Jan-1996	31-Jan-1999	100,000,000.00
10030	19900331	L-1000000018	135	1	14710	100000009	31-Jan-1996	31-Jan-1997	100,000,000.00
10031	19900331	L-1000000019	135	1	14710	100000009	31-Jan-1996	31-Jan-1997	100,000,000.00
10032	19900331	L-1000000020	135	1	14710	100000009	01-Apr-1996	31-Jan-1997	100,000,000.00
10033	19900331	L-1000000032	135	1	300120	30012	31-Mar-1996	01-Apr-1996	100,000,000.00
10034	19900331	L-1000000066	135	1	14710	800017	31-Jan-1996	31-Jan-1997	100,000,000.00
10035	19900331	L-1000000067	135	1	14710	800037	31-Jan-1996	31-Jan-1997	100,000,000.00
10036	19900331	L-1000000068	135	1	14710	800038	31-Jan-1996	31-Jan-1997	100,000,000.00
10037	19900331	L-1000000069	135	1	14710	100020	31-Jan-1996	31-Jan-1997	100,000,000.00
10038	19900331	L-1000000070	135	1	14710	100021	31-Jan-1996	31-Jan-1997	100,000,000.00

Return - Refresh - Print - Download

4. Data Stratification - Maturity Date

The Maturity Date details for each bucket range value for the Instruments are displayed here.

Data Stratification - Maturity Date
 Time run: 12/11/2009 4:44:38 PM

Maturity Date Bucket	Current Book Balance	Record Count
1 . 1-Jan-1978 - 31-Dec-1999	22,760,000,000.00	278
2 . 1-Jan-2000 - 31-Dec-2015	80,000,000.00	2
Grand Total	22,840,000,000.00	280

Refresh - Print - Download

To view a detailed report, click the bucket range for which you need the detailed report. The detailed report for the selected bucket range is displayed.

Data Quality
Detailed Report - Maturity Date
 Time run: 12/11/2009 4:48:48 PM

ID Number	Identity Code	Account Number	Product ID	Org unit ID	GL Account ID	Common COA ID	Origination Date	Maturity Date	Current Book Balance
10028	19900331	L-3	135	0	14710	3001	30-Apr-1993	30-Apr-2003	40,000,000.00
10054	19900331	L-18	135	0	14710	3002	30-Apr-1993	30-Apr-2003	40,000,000.00
Grand Total									80,000,000.00

Return - Refresh - Print - Download

Dimension Wise

You can select the values to filter the data by selecting the values from the top drop down list. The following four reports are displayed here:

- Amortization Type / Adjust Type/ Reprice Freq

- Payment Frequency/ Remaining Payments
- Product
- General Ledger Account

The screenshot displays the Oracle Financial Services Profitability Management (OFSPM) interface. At the top, there are navigation tabs for 'Data Quality', 'Dimension Wise', 'FTP Rates', 'Invalid Leaves', 'Invalid Codes', 'Detailed Reports', 'Ledger Stat', and 'Product Instrument Flag'. The main content area is divided into several sections:

- Amortization Type/Prepayment Frequency:** A table showing 'Line Item', 'Asset Type Code', 'Adj Type Code', 'Reprice Freq', 'Current Book Balance', and 'Record Count'. The data is filtered for 'Certificate of Deposits'.
- Payment Frequency/ Remaining Payments:** A table showing 'Payment Multiplier', 'Payment Term', 'Remaining Payments', 'Current Book Balance', and 'Record Count'. It lists various payment terms like 'D', 'M', 'W', 'Q', 'Y'.
- Line Items/ Natural Account:** Two summary tables. The 'Line Items' table shows a total current book balance of 22,840,000.00 for 280 records. The 'Natural Account' table lists various 'Leaf' accounts with their respective balances and record counts.

FTP Rates

You can filter the data by selecting the values from the drop down list. The Transfer Pricing Stratification Reports show a summary of the FTP results for all instrument tables.

FTP Rate Detail					
Transfer Pricing Stratification Report for All Products					
Time run: 12/11/2009 4:15:47 PM					
Product Name	Record Count	Avg Balance	WAvg Transfer Rate	WAvg Note Rate	WAvg Gross Spread
Certificate of Deposits	280	1,200,000,000.00	0.0000%	8.9000%	0.0000%

[Refresh](#) - [Print](#) - [Download](#)

You can click on the product name to go to the account level - detail report as shown in the following screenshot.

Data Quality Welcome, Administrator! [Dashboards](#) - [Answers](#) - [More](#)

Transfer Pricing Stratification Report for All Products-Detailed
Time rpt. 12/11/2009 5:05:13 PM

Product Name	ID Number	Identity Code	Account Number	Product ID	Org unit ID	Common COA ID	GL Account ID	Origination Date	Maturity Date	Avg Balance	WAvg Transfer Rate	WAvg Note Rate	WAvg Gross Spread
	10016	19960331	L-1	135	0	3001	14710	31-Jan-1993	31-Jan-1996	40,000,000.00	0.0000%	8.0000%	0.0000%
	10017	19960331	L-10	135	0	3001	14710	30-Nov-1993	30-Nov-1996	40,000,000.00	0.0000%	8.0000%	0.0000%
	10018	19960331	L-11	135	0	3001	14710	31-Dec-1993	31-Dec-1996	40,000,000.00	0.0000%	7.0000%	0.0000%
	10019	19960331	L-8	135	0	3001	14710	31-Oct-1993	31-Oct-1996	40,000,000.00	0.0000%	8.0000%	0.0000%
	10020	19960331	L-3	135	0	3001	14710	30-Apr-1993	30-Apr-2003	40,000,000.00	0.0000%	7.0000%	0.0000%
	10029	19960331	L-1000000002	135	1	700000002	14710	31-Jan-1996	31-Jan-1999	0.00	0.0000%	0.0000%	0.0000%
	10030	19960331	L-1000000018	135	1	100000009	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10031	19960331	L-1000000019	135	1	100000009	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10032	19960331	L-1000000020	135	1	100000009	14710	01-Apr-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10033	19960331	L-1000000021	135	1	30012	30012	31-Jan-1996	01-Apr-1996	0.00	0.0000%	0.0000%	0.0000%
	10034	19960331	L-1000000025	135	1	820017	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10035	19960331	L-1000000026	135	1	820017	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10036	19960331	L-1000000028	135	1	820018	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10037	19960331	L-1000000029	135	1	100020	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10038	19960331	L-1000000070	135	1	100021	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10039	19960331	L-1000000071	135	1	820001	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10040	19960331	L-1000000072	135	1	820002	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10041	19960331	L-1000000073	135	1	820003	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10042	19960331	L-1000000074	135	1	820044	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10043	19960331	L-1000000075	135	1	820045	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10044	19960331	L-1000000076	135	1	820046	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10045	19960331	L-1000000077	135	1	820004	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10046	19960331	L-1000000078	135	1	820048	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10047	19960331	L-114800184	135	1	820001	14710	31-Jan-1996	31-Jan-1997	0.00	0.0000%	0.0000%	0.0000%
	10048	19960331	L-12	135	0	3001	14710	31-Jan-1994	31-Jan-1999	40,000,000.00	0.0000%	7.0000%	0.0000%

Records 1 - 25

Invalid Leaves

Contains reports for invalid leaves based on the list of Dimension Members compared with the Instrument data. You can filter the data selecting the drop down list provided at the top. The following four reports are displayed here:

- Invalid Products
- Invalid Org Unit
- Invalid Common COA
- Invalid GL Account

Invalid Codes

Contains the reports for invalid Codes based on the dimensions compared with Instruments. You can filter the data selecting the drop down list provided at the top. The following seven reports are displayed here:

- Accrual Basis Code
- Amortization Code
- Adjustable Type Code
- Compound Basis Code
- Behaviour Type Code
- Behaviour Sub Type Code

- Net Margin Code

Detailed Reports

Contains the detailed report for a particular Instrument based on the selection in the drop down.

Identity Code	ID Number	Account Number	Product ID	Org unit ID	Common COA ID	GL Account ID	Origination Date	Maturity Date	Current Book Balance	Current Par Balance
19960331	10016	L-1	136	0	3001	14710	31-Mar-1993	31-Mar-1996	45,000,000.00	45,000,000.00
	10017	L-10	136	0	3001	14710	30-Nov-1993	30-Nov-1996	45,000,000.00	45,000,000.00
	10018	L-11	136	0	3001	14710	31-Dec-1993	31-Dec-1996	45,000,000.00	45,000,000.00
	10019	L-8	136	0	3001	14710	31-Oct-1993	31-Oct-1996	45,000,000.00	45,000,000.00
	10020	L-3	136	0	3001	14710	30-Apr-1993	30-Apr-2003	45,000,000.00	45,000,000.00
	10029	L-1000000002	136	1	70000002	14710	31-Jan-1996	31-Jan-1999	100,000,000.00	100,000,000.00
	10030	L-1000000018	136	1	10000009	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10031	L-1000000019	136	1	10000009	14710	31-Mar-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10032	L-1000000020	136	1	10000009	14710	31-Apr-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10033	L-1000000032	136	1	30012	300120	31-Mar-1996	31-Apr-1996	100,000,000.00	100,000,000.00
	10034	L-1000000096	136	1	800017	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10035	L-1000000097	136	1	800017	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10036	L-1000000098	136	1	800018	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10037	L-1000000099	136	1	100020	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00
	10038	L-1000000075	136	1	100021	14710	31-Jan-1996	31-Jan-1997	100,000,000.00	100,000,000.00

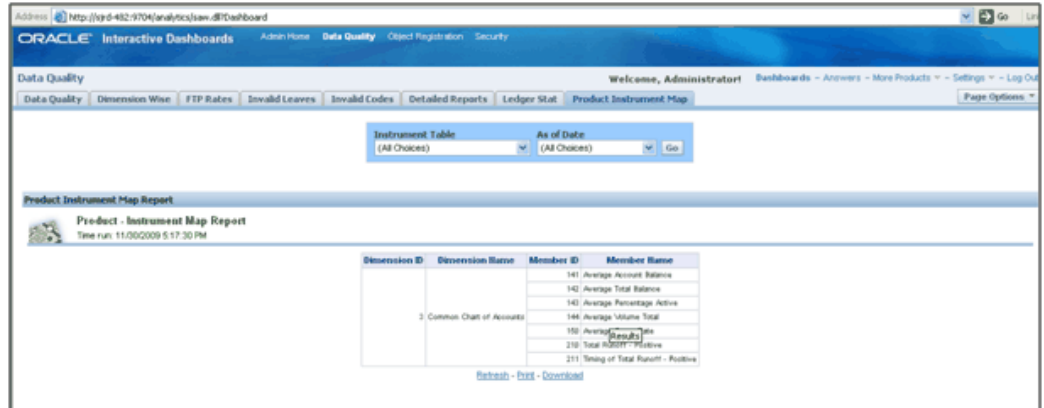
Ledger Stat

Contains the reports for missing dimension members compared with Ledger Stat data values. You can filter the data by selecting from the drop down list provided at the top. The following five reports are displayed here:

- Missing Products
- Missing Org Units
- Missing Common COA
- Missing GL Account
- Missing Financial Elements

Product Instrument Map

Contains the Product Instrument Map report. You can filter the data based the drop down selection. The Product Instrument Map data is used within both ALM and FTP Process rules. These processes allow users to select data to be included in the process based on a Product Hierarchy. The engines need to reference this data to determine which instrument tables to include in the process.



Object Registration

To go to the Object Registration reports, click Object Registration at the top of the Administrative Reports page. The details of the registered objects are present in the reports. You can obtain the data type of each object from this report. There are two tabs in this section.

1. Object Registration Tab

The details of the classification and number of registered objects are obtained here.

Classification	Classification Code	Classification Description	No of Registered Objects
Instrument	20	Super-type for all instrument tables	21
Ledger Stat	50	Ledger Stat	1
Portfolio	100	Portfolio of instrument tables	8
MLS Descriptions Reserved	197	MLS Description table for Reserved Code values.	8
Codes Reserved (base ID)	196	Base table for Reserved Code values.	11
TP Cash Flow	200	Classification to identify tables that qualify for TP Cash Flow methods.	21
TP Non-Cash Flow	210	Classification to identify tables that qualify for TP Non-Cash Flow methods.	21
Codes User Defined (base ID)	295	Base table for User Defined Code columns.	17
MLS Descriptions User Defined	296	MLS Description table for User Defined Code columns.	16
Transaction Profitability	300	Classification to identify transaction summary tables that will be used for profitability.	20
Instrument Profitability	310	Classification to identify instrument tables that will be used for profitability.	20
TP Option Costing	370	Transfer Pricing Option Costing processing.	11
FA Lookup Tables	500	Lookup tables used in FA Lookup Table ID	4
Break Funding	530	Break Funding instrument for TP	1
Derivative Instruments	600	Classification to identify derivative instruments	9

2. Detailed Report

You can click on any classification to navigate to the detailed registered objects report.

The screenshot displays the Oracle Interactive Dashboards Security interface. It features four main sections: User Privileges, Group Privileges, Role Privileges, and Function Privileges. Each section includes a search bar with filters for User ID, User Name, and Segment Name, and a table listing the associated privileges. The User Privileges table shows columns for User Name, Group Name, Segment Name, Role Name, and Function Name. The Group Privileges table shows columns for Group Name, Role Name, Segment Name, Function Name, and User Name. The Role Privileges table shows columns for Role Name, Function Name, Segment Name, User Name, and Group Name. The Function Privileges table shows columns for Function Name, Role Name, Group Name, Segment Name, and User Name. The interface also includes navigation buttons like Refresh, Print, and Download, and a timestamp indicating the time run.


User Privileges

The details of a user and various associated privileges can be viewed in this report.

This screenshot shows a detailed view of the User Privileges report for user AA. The report includes a search bar with filters for User ID (AA), User Name (All Choices), and Segment Name (All Choices). The main table lists the user's privileges, with columns for User Name, Group Name, Segment Name, Role Name, and Function Name. The user name 'Action Assessor' is highlighted in blue, indicating it is a clickable link. The Function Name column lists various privileges such as 'Access to user options link', 'Action Identification', 'AI Close', 'AI Create', 'AI Request for Appro', 'AI Save', 'Call Remote Web Services', 'Close for document', 'DOC_MNU', and 'Document Management Access'. The report also includes navigation buttons like Refresh, Print, and Download, and a timestamp indicating the time run.

You can click the user name to obtain the detailed user report.

Security

 **Detailed User Report**
Time run: 11/30/2009 5:33:59 PM

User Name : Action Assessor

User ID	AA
User Name	Action Assessor
Created Date	05/25/2009 21:26:08 PM
Created By	RORADMIN
User Start Date	05/25/2009
Last Login Date	09/01/2009 12:33:09 PM
Last Modified By	RORADMIN
Last Modified Date	05/25/2009 21:26:08 PM
Authorize Status	Authorized
Email	snphani@identity.com

[Return](#) - [Refresh](#) - [Print](#) - [Download](#)

Group Privileges

The details of a user group and various associated privileges can be viewed in this report.

Group Privileges

Group Code: AAGRP | Group Name: (All Choices) | Segment Name: (All Choices) | Go

Group Privileges
Time run: 11/30/2009 5:29:06 PM

Group Name	Role Name	Segment Name	Function Name	User Name
AAGRP	Action Assessor	RORSEG2	Access to user options link	Action Assessor
			Action Identification	Action Assessor
			AI Close	Action Assessor
			AI Create	Action Assessor
			AI Request for Appro	Action Assessor
			AI Save	Action Assessor
			Call Remote Web Services	Action Assessor
			Close for document	Action Assessor
			DOC_MNU	Action Assessor
			Document Management Access	Action Assessor

Records 1 - 10

[Refresh](#) - [Print](#) - [Download](#)

You can click the group name to get the detailed group report.

Security

Detailed - Group
Time run: 11/30/2009 5:36:41 PM

Group Name : AAGRP

Group Code	AAGRP
Group Name	AAGRP
Group Desc	Action Assessor Group
Group Type	USER
Created Date	05/25/2009 21:26:38 PM
Created by	R0RADMIN
Last Modified Date	05/25/2009 21:26:38 PM
Last Modified By	R0RADMIN

[Return](#) - [Refresh](#) - [Print](#) - [Download](#)

Role Privileges

The details related to role privileges can be viewed in this report.

Role Privileges

Role Code: CWSADMIN
Role Name: (All Choices)
Go

Role Privileges
 Time run: 12/11/2009 6:12:20 PM

Role Name	Function Name	Segment Name	User Name	Group Name
CWS Administrator	Call Remote Web Services	DEMOSEG	authdef	DEMOGRP
			DEMOUSER	DEMOGRP
			test11	DEMOGRP
			varun1	VRNGRP
			varun2	DEMOGRP
		varun3	DEMOGRP	
		vicky	DEMOGRP	
		authdef	DEMOGRP	
		DEMOUSER	DEMOGRP	
		stuser2	STGROUP	
		GASEGR2		

Records 1 - 10
[Refresh](#) - [Print](#) - [Download](#)

You can click the role name to get the detailed role report.

Security

Detailed - Role
 Time run: 12/11/2009 6:27:09 PM

Role Code	CWSADMIN
Role Name	CWS Administrator
Role Desc	CWS Administrator Role
Role Type	SYSADMN
Created Date	10/10/1956 00:00:00
Last Modified Date	10/10/1956 00:00:00
Created By	SYSADMN
Last Modified By	SYSADMN

[Return](#) - [Refresh](#) - [Print](#) - [Download](#)

Function Privileges

The details related to function privileges can be viewed in this report.

Function Name	Role Name	Group Name	Segment Name	User Name
Add Alias	Business Analyst	DEMOGRP	DEMOSEG	authdef
				DEMOUSER
				test11
				varun2
				varun3
				vicky
Add Alias	Business Analyst	DEMOGRP	GASEGR2	authdef
				DEMOUSER
				test11
				varun2

You can click the function name to get the detailed function report.

Security



Detailed - Function

Time run: 12/11/2009 6:32:37 PM

Function Name : Add Alias

Function Code	ALSADD
Function Name	Add Alias
Function Description	The user mapped to this function can add Alias
Function Type	SYS
Created Date	10/10/1958 00:00:00
Created By	SYSADMIN
Last Modified Date	10/10/1958 00:00:00
Last Modified By	SYSADMIN

[Return](#) - [Refresh](#) - [Print](#) - [Download](#)

Adhoc Reporting – Special Instructions

The following instructions need to be followed whenever you want to carry out the Adhoc Reporting or Adhoc Querying using the OBI Answers tool or any other querying or reporting tools.

In the OBI Answers tool, when you click the Answers link, you will find single subject area, Fusion. Here you can select the tables (folders) and columns related to the Object Registration, Data Quality and Security dashboards. These tables (folders) and columns can also be used for Adhoc Reporting or Adhoc Querying.

Since these tables belong to different functional areas, namely Object Registration, Data Quality and Security, relationships or table joins across functional areas are not supported for Adhoc Reporting. Therefore, during Adhoc Report or request creation you have to make sure that tables and columns selected are within the functional groups mentioned in the following section to get correct results.

Data Quality

You can use following folders (tables) and columns for Adhoc Querying on Data Quality related objects.

- Dim Stratification
- Dim Leaves
- Dim Invalid Codes
- Dim Ledger Stat
- Dim Product
- Dim Org Unit
- Dim Currency
- Dim General Ledger
- Dim Common COA
- Fact Stratification
- Fact Leaves
- Fact Invalid Codes

Object Registration

You can use following folder for Adhoc Querying on Object Registration related queries.

- Dim Classification

Security

You can use following folder for Adhoc Querying on Security related queries.

- Dim Security

OFSA Data Entry Forms and Queries

Introduction to Data Entry Forms and Queries

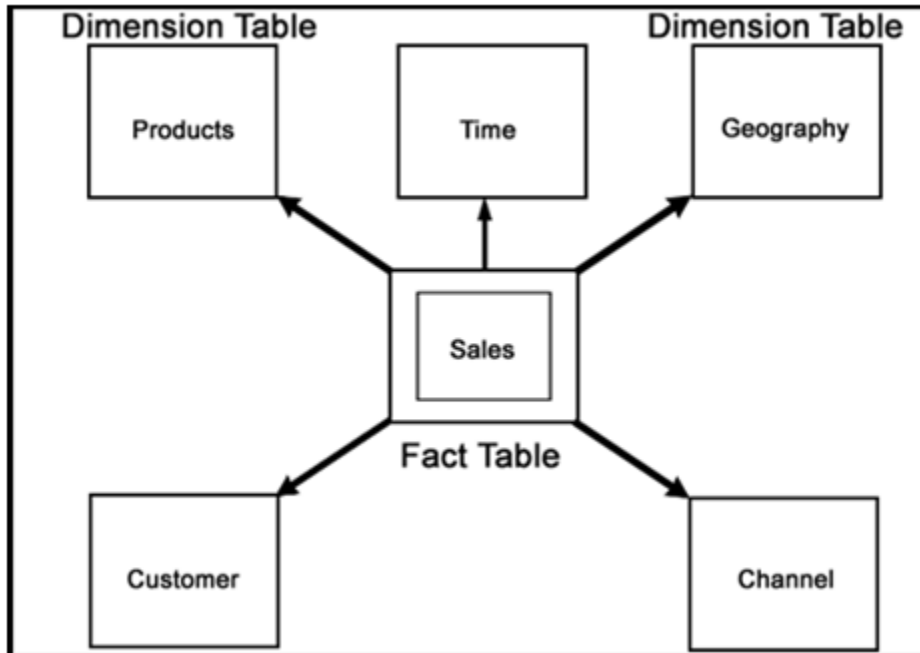
Data Entry Forms and Queries functionality is provided to allow you to create user-friendly Data Entry Screens with a choice of layouts, which aids easy data view and data manipulation. You can select tables based on which you can create forms that can be used in any Application.

Acronyms

Defi Data Entry Forms and Queries.

Data Model A logical map that represents the inherent properties of the data independent of software, hardware or machine performance considerations. The model shows data elements grouped into records, as well as the association around those records.

Star Schemas It is the simplest of data warehouse schemas. This schema resembles a star diagram. While the center contains one or more fact tables the points (rays) contain the dimension tables



In a star schema, only one join is needed to establish the relationship between the fact table and any one of the dimension tables which optimizes queries as all the information about each level is stored in a row.

Designing Data Entry Forms

The Data Entry Forms and Queries menu has three options, namely, Form designer, Data Entry and Excel Upload options.

To Design forms, click **Form Designer** to open the **Forms Designer Wizard** . In this screen, you can create, alter, copy or delete forms. **Create a new Form** is the default option that is chosen when you open the wizard. The various steps involved in the creation of the form are displayed in the left pane of the screen. You can also assign User Rights to already defined Forms.

The first screen of the Forms Designer wizard is displayed as Step 2, Step 1 being the login screen.

Select one of the following options...

STEP

1

2

3

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- Create a New Form
- Alter Existing Forms
- Copy Forms
- Delete Forms
- Assign Rights
- Message Type Maintenance

Available Applications: DeFi

New Application Name: _____

New Form Name: _____

Next > Cancel

Creating a New Form

To design a new form you will have to first choose the Create a New Form option. On entering the screen this option will be selected by default.

An Application refers to a group with a list of forms within it. The Available application field will contain the new application by default.

To create a new form, select New Application from the Available Applications drop-down list, click the field provided for New Application Name and enter an application name.

Enter a form name in the **New Form Name** field.

Note: To modify an existing form, select Alter Existing Forms option. Make your modifications and move to step 3.

Click **Next** to go to step 3. Click **Cancel** to reset the fields.

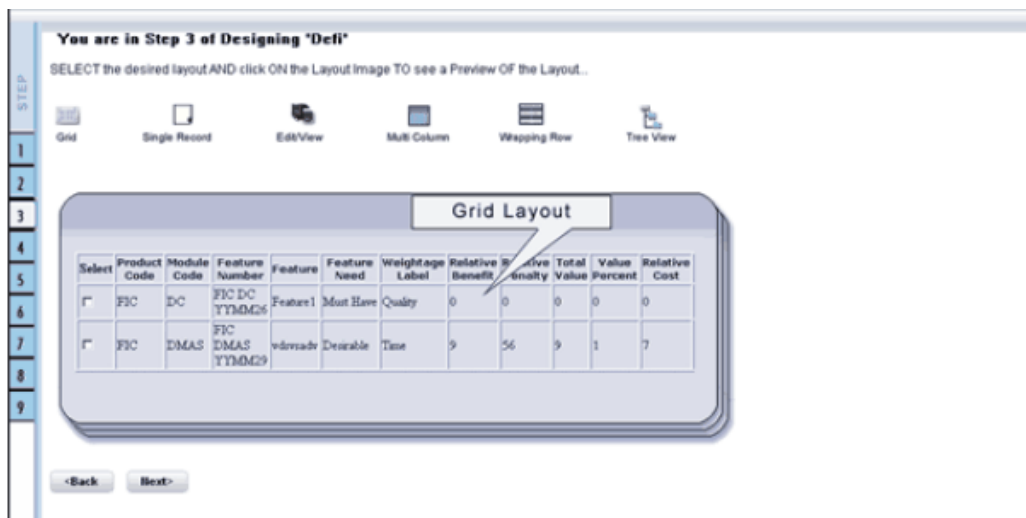


The Layout screen displays a range of pre-defined layouts for your form. The various layouts available are Grid, Single Record, Edit/View, Multi Column, Wrapping Row and Tree View.

To view the display of a layout, click any of the icons on the top of the screen. Click Back to go to the previous screen. Click Next to go to step 4. Click Cancel to refresh the choice of the selected layout.

The Grid Layout

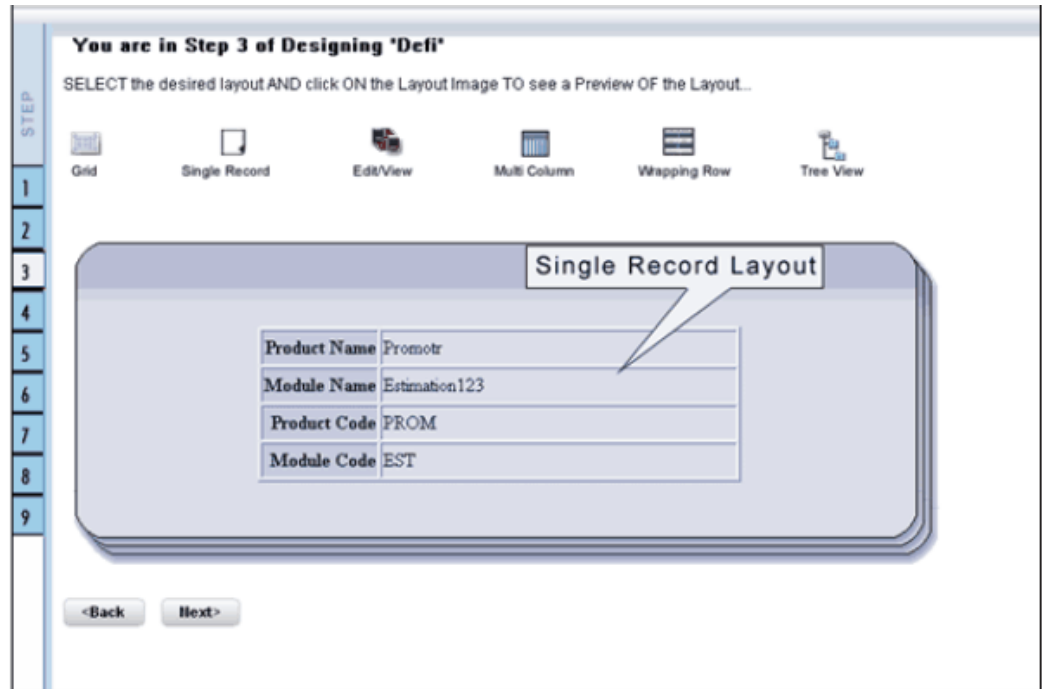
The Grid Layout is the default layout that is displayed. It will display the records in the form of a table/grid with multiple rows of data.



This layout can be used when you wish to view multiple records from a table at a time.

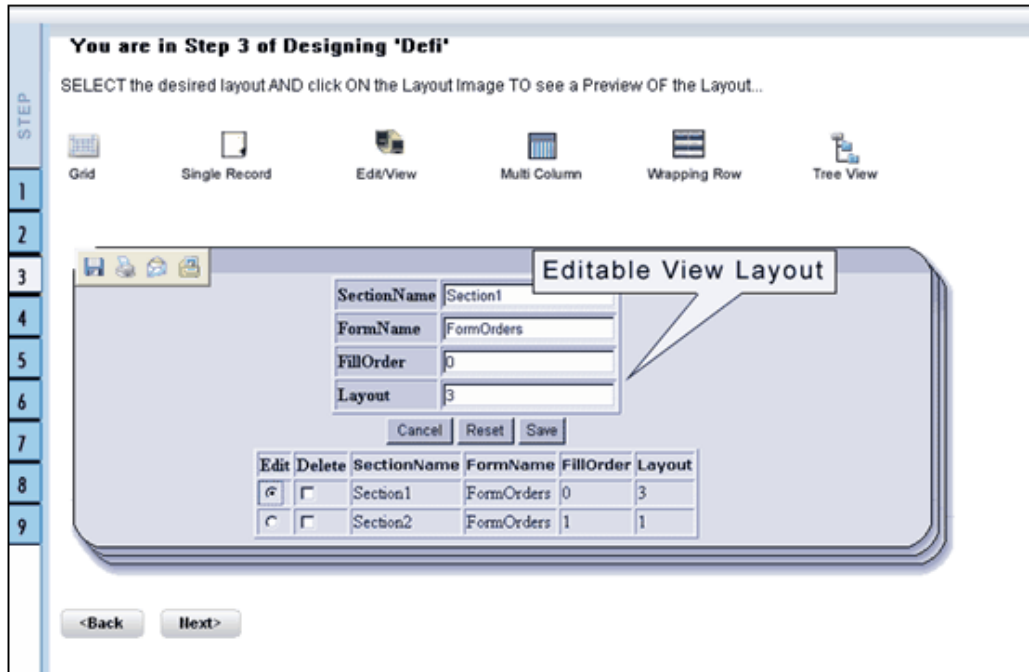
The Single Record Layout

The Single Record Layout displays a single record at a time.



The Edit/View Layout

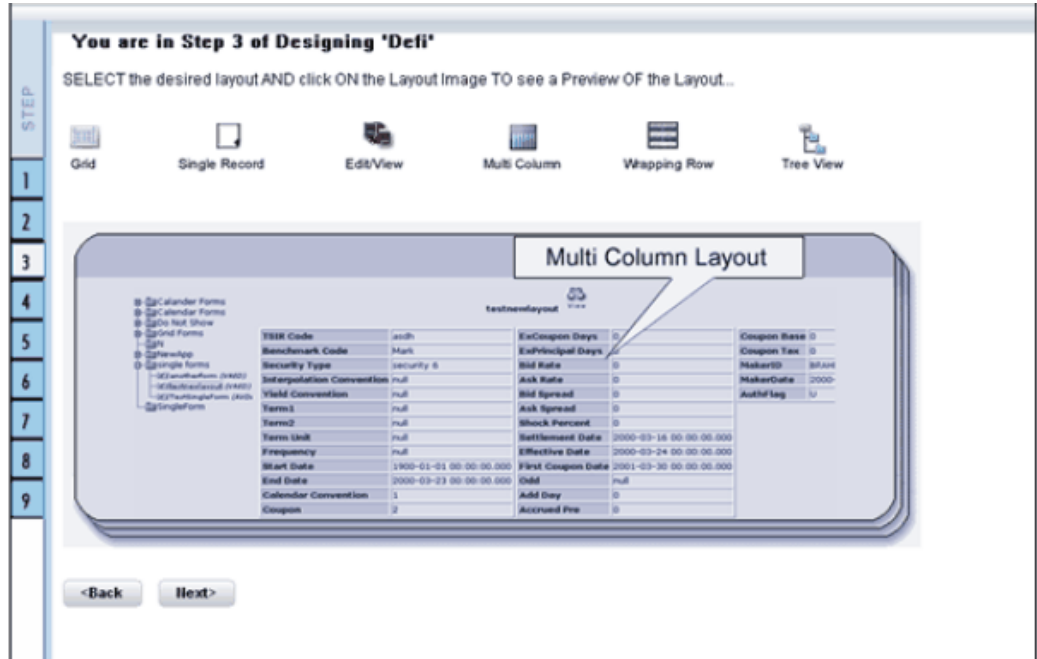
The Edit/View Layout is a combination of the single record and grid layout.



If you choose a record in the grid, that particular record will be displayed in the form, in a single record format, which is editable. By default the first record will be displayed in the editable grid.

The Multi Column Layout

The Multi Column Layout displays a single record with its column in a grid format.



You can view a multi column layout form without having to scroll or with minimum scrolling to view all the columns.

The Wrapping Row Layout

The Wrapping Row displays rows of a single record in a wrapped manner in a grid format.



You can view a wrapping row layout form easily without having to scroll horizontally to view all the data.

The Tree View Layout

The Tree view layout represents the dimensional table. It presents the entire dimension tree with selected dimension details.

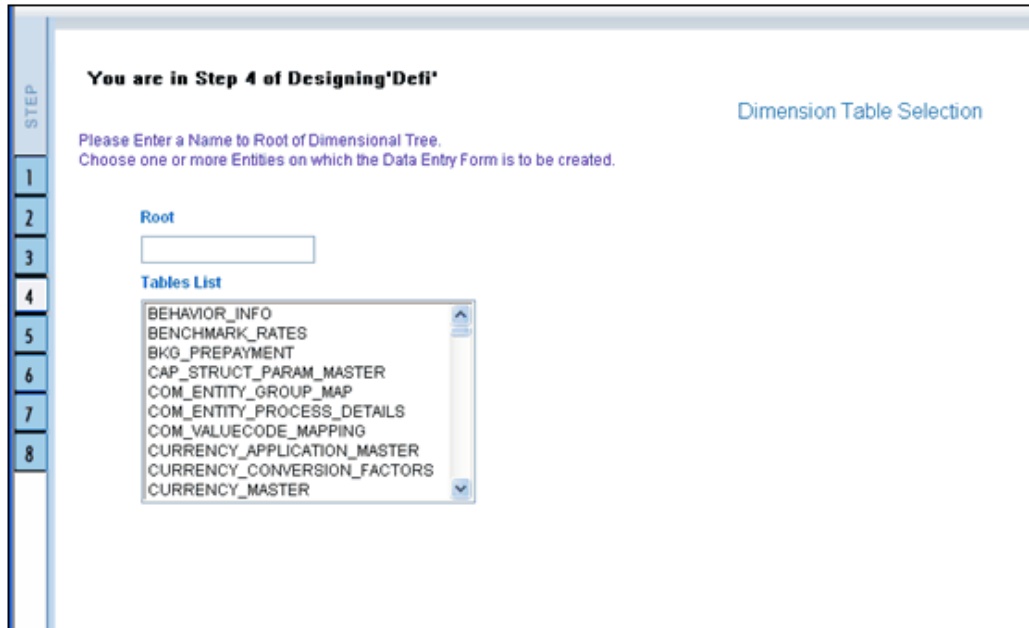


Click Back to go to the previous screen. Click Next to go to step 4. Click Cancel to reset the selected layout option.

For Grid, Single Record, Edit/View, Wrapping Row, Multicolumn and Tree View Layouts

The table screen displays the Tables List box with available tables. You can choose more than one table by pressing the CTRL key for nonadjacent selection or the SHIFT key for multiple adjacent selections.

However, it is necessary that the tables that you select have same data type for the two mapped fields.



Example

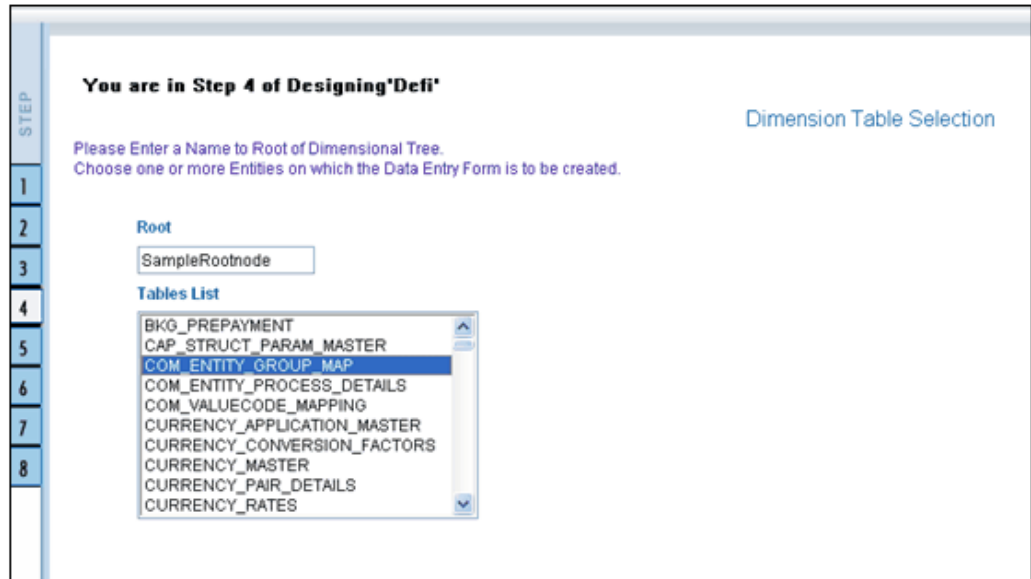
DIM_ACTION_GROUP

DIM_ACTION_PRIORITY

DIM_ACTION_TYPE

Click **Back** to go to the previous screen. Click **Next** to go to step 5. Click **Cancel** to refresh the table list.

If you have selected **Tree View layout** in the previous screen, the Table list screen will be as shown .



Enter a root node name in the Root text box.

Example

Sample Rootnode

Choose a table that you want to be included in the form.

Example

DIM_ACTION_GROUP

Click Back to go to the previous screen. Click Next to go to the join tables screen.

Joining Tables

In the join table screen, you can select the fields to be joined.



Choose a table name that you wish to add or edit.

Example

DIM_PRODUCTS

Select the field of the chosen table that you want to add from the Available Fields list box and choose the field that you want to join it with of the latter table. The chosen fields will be displayed in the Join Condition pane.

Example

DIM_PRODUCTS.V_D_PRODUCT

LEVEL_1_CODE=DIM_PRODUCTS.V_D_PRODUCT_LEVEL_2_DESC

Click **Clear** to clear the join condition.

Click **Back** to go to the previous screen. Click **Next**, to join the fields and go to step 5.

Click **Cancel** to refresh the table list.

For Grid, Single Record, Edit/View, Wrapping Row, Multicolumn and Tree View Layouts.

The Fields screen displays the Available Fields pane and Fields for sorting pane. The mandatory fields are highlighted with the '*' symbol and are automatically displayed in the Selected Fields pane as pre-selected for you and are shown in the Chosen Fields Pane. These mandatory fields are fields (primary key fields and not null fields) that require data to be entered by the user while performing Data Entry on the underlying table.

Example

If you want the fields to be sorted based on the Branch Code, select the field CUSTOMER V_CUST_BRANCH_CODE.

You are in Step 6 of Designing 'Defi'

Dimension Node Selection

Please Select the fields to be get displayed as the Dimensional Tree Nodes. Use **Move Up** and **Move Down** buttons for Ordering the level of Selected Dimensional Tree Nodes. Selection of more than one Entity requires Equi-Join Condition(s) to be specified for all participating Entities

STEP		
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Available fields

COM_ENTITY_GROUP_MAP.N_GROUP_ID
COM_ENTITY_GROUP_MAP.V_ATTRIBUTE_NAME
COM_ENTITY_GROUP_MAP.V_SOURCE_SYSTEM_ID

>

<

The Field Nodes

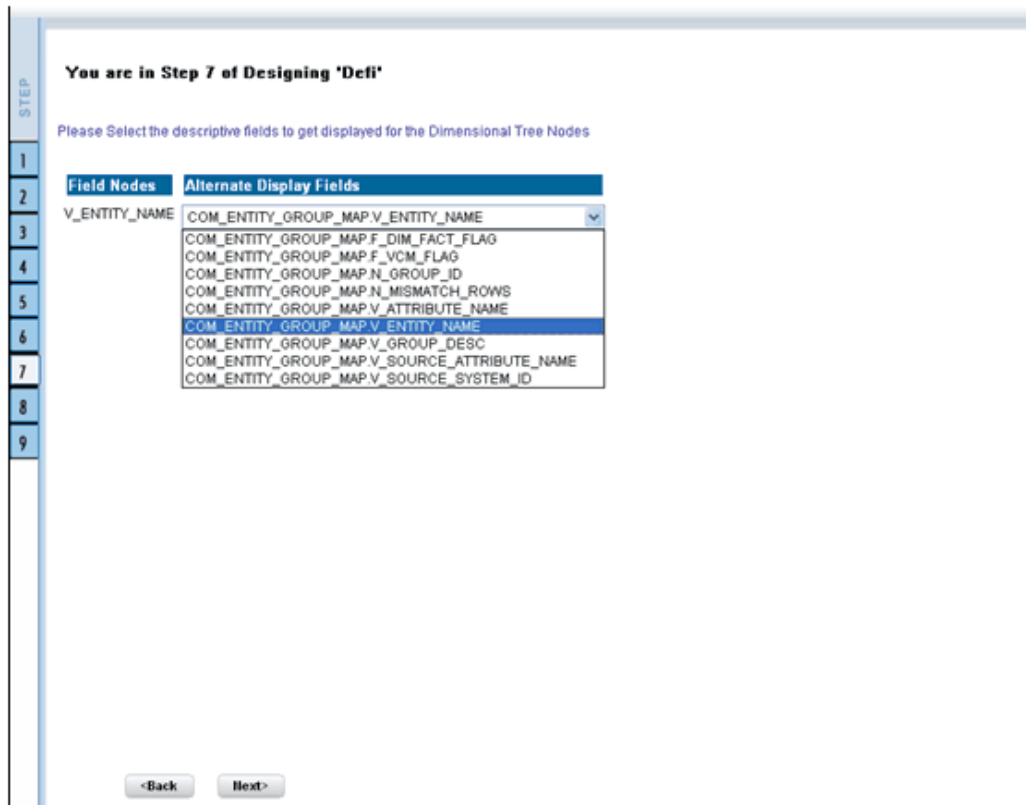
COM_ENTITY_GROUP_MAP.V_ENTITY_NAME

▲

▼

Select the fields from the Available Fields pane that you want to be included in the form and click (>) to move to the Fields to Display pane. To remove a field(s) from the Fields to Display pane to the Available Fields pane, click (<) . To move all the fields to the Fields to Display pane from the Available Fields pane, click (>>) . To move all the non mandatory fields to the Available Fields pane, click (<<) .

To arrange the fields that are displayed in the Fields to Display pane, click up arrow symbol to move a field up and down arrow symbol to move down. This order determines how the Fields are displayed in the Data Entry Form. This order can be different from the order in which the fields are in the underlying table.



Select the fields from the Available Fields pane that you want to be included in the form and click (>) to move to Step 8. To remove a field(s) from the Choose Fields pane to the Available Fields pane, click (<) . To move all the fields to the Choose Fields pane from the Available Fields pane, click (>>) . To move all the non mandatory fields to the Available Fields pane, click (<<) .

To arrange the fields that are displayed in the Choose Fields pane, click up arrow symbol to move a field up and down arrow symbol to move down. This order determines how the Fields are displayed in the Data Entry Form. This order can be different from the order in which the fields are in the underlying table.

The selected fields will be sorted in ascending order by default. To set the order of the fields in the descending order, check the check-box provided for **Sort By Descending**.

Note: The fields displayed in the Sort Fields screen are the list of fields chosen from the Fields Selection screen.

Click **Back** to go to the previous screen. Click **Next** to go one step further.

For Grid, Single Record, Edit/View, Wrapping Row & Multicolumn Layouts

The index screen displays the form with Field Name, Display Name, In View, In Edit/Add, Allow Add, Store Field as and Rules detail columns. You can specify the

details for each of the field names.

Defi - Table Name : COM_ENTITY_GROUP_MAP

Number of Rows to be displayed: 5 | Page Size: 20 | Batch Commit | Message Details | Form Filter | Data Versioning

Field Name	Display Name	In View	In Edit / Add	Allow Add	Store Field as	Rules	Format Type
N_GROUP_ID*	Group ID	Display	Read Only	<input checked="" type="checkbox"/>	Normal	Rules	NONE
V_ATTRIBUTE_NAME*	Attribute Name	Display	Read Only	<input checked="" type="checkbox"/>	Normal	Rules	NONE
V_ENTITY_NAME*	Entity Name	Display	Read Only	<input checked="" type="checkbox"/>	Normal	Rules	NONE
V_SOURCE_SYSTEM_ID*	Source System Id	Display	Read Only	<input checked="" type="checkbox"/>	Normal	Rules	NONE

Buttons: <Back | Save | Save with Authorization

You can change the display name of the field name by entering a name in the Display Name field.

Example

User Expiry Date

You can choose a field to be displayed by selecting the In View option as Display or Do not Display. If the field you choose is a foreign key field or if more than one table is selected, the In View displays Same Field, Alternate Display Field and Do not Display options.

You can specify the edit options for a user by specifying the edit parameters. Click the In **Edit/Add** field to open the drop-down list box. Select the edit parameter that you want to apply to a field. For normal fields you can choose the edit parameters like Text Field, Text Area, Select List, Protected Field, Read Only and Do Not Show. If it is a foreign key field the In Edit/Add parameters displayed will be Read Only, Select List and Do Not Show. For primary key fields the In Edit/Add parameter displayed will be Read Only and Do Not Show. In case of calendar fields, the In Edit/Add parameters displayed are Calendar and Do Not Show.

To give the user permission to add a new record, select the Allow Add option against the field name. If form is saved with add option as true for some fields and false for some fields then it will give an alert saying "Choose Allow Add for the mandatory fields."

To specify the field storage format, click the **Store Field as** field to open the drop-down

list. You can choose the store format as Normal, Sequence Generator, Maker Date, Checker Date, Created Date, Modified Date Auth Flag, Maker id, Maker Date, Checker id, Checker Date, Checker Remarks and Maker Remarks.

You can also apply rules to a field. Click Rules to open the screen.

Applying Rules

You can apply rules only if the In Edit/Add fields are Text Field, Text Area or Protected Field. The rule option is essential for data validation

To specify rules for Text Field, Text Area and Protected Field, click the **Rule** option to open the Specifying Rules and Expressions for Data Validations window.

If a field has a character data type, you can specify here the rule for the field to be displayed without spaces, only characters or alphanumeric. If a field has a numeric data type, you can check the check-box provided for Numeric Only. You can choose whether/not you require Negative values to be displayed by checking/un-checking the field provided for Non Negative, not null will be displayed for the non primary key and/or nullable fields.

Specify the maximum width of the field in the Maximum Width box. You can set the column alignment by selecting the appropriate alignment from the Alignment drop-down list. On specifying the options, click Ok to save.

Click **clear** to Clear the information entered in the screen. Click **Close** to close the screen.

Click **Back** to go to the previous screen. Click **Save** to save the field details setting.

- Only forms with primary key tables can have the authorization option while saving.
- By default, the alignment for character and date data type is taken as Left. And for numbers it is displayed as Right. But the alignment can be changed to Right, Left or Center.

You can specify the edit options for a user by specifying the edit parameters. The In Edit option varies for different fields based on whether the field is foreign, primary or calendar fields.

Click the **In Edit/Add** field to open the drop-down list box. You can choose the edit parameters like Text Field, Text Area, Select List, Read Only, Do Not Show and Expression Generator. Select the edit parameter that you want to apply to a field.

When you select the Select List option in the In Edit/Add column, a pop-up window is displayed.

Note: The Select List option will not be displayed for foreign key fields.

Enter the list of values to be displayed, in the List of Values field. You may choose the field to be Comma Separated Values or Dynamic list of values options.

Comma Separated Values can have only the user specified values while creating a form.

Dynamic Field accepts the fieldname from a table, which it stores in the database, which is used during Data Entry. Specify **Alternate Display Values** in the appropriate field.

Click **OK** to save the specified list of values. Click **Cancel** to clear the List of Values field. Click **Close** to close the pop-up window.

If you select Dynamic List of Values, you will be able to select the table values and then define a filter condition for the selected values, as shown in the following screen-shot.

Define List of Values

Field Name : D_USR_EXPIRY_DTE

Comma Separated Values

Dynamic List of Values

Table: CSSMS_USR_PROFILE

List Value Field: CSSMS_USR_PROFILE.D_CREATED_DATE

Display Value Field: CSSMS_USR_PROFILE.D_CREATED_DATE

Fields:

- CSSMS_USR_PROFILE.D_USR_START_DTE
- CSSMS_USR_PROFILE.F_AUTHORIZE_STAT
- CSSMS_USR_PROFILE.F_FORCED_PWD_CHANGE
- CSSMS_USR_PROFILE.F_LOGIN_HOLIDAYS
- CSSMS_USR_PROFILE.F_USR_DELETE
- CSSMS_USR_PROFILE.F_USR_ENABLED
- CSSMS_USR_PROFILE.F_USR_LOGIN_STAT
- CSSMS_USR_PROFILE.FIELD6

Operators:

- /
- +
-
- <
- >
- <=
- >=
- =

Functions:

- LENGTHB()
- LEAST()
- LENGTH()
- LOG()
- LOWER()
- LN()
- LPAD()
- LTRIM()

List Value Filter Condition ::

OK Clear Close

To give the user permission to add to the field, select the Allow Add option against the field name. The Allow Add option is mandatory for primary key and not null fields.

To specify the field storage format, click the Store Field as field to open the drop-down list box. You can choose the store format as Normal, Sequence Generator, maker ID, Checker ID, Maker Date, Checker Date, Created Date, Modified Date, Maker Remarks, Checker Remarks and AuthFlag.

Click Back to go to the previous screen. Click Save to save the field details setting.

To save the form containing primary key tables, click **Save with Authorization**.

- Only forms with primary key tables can have the authorization option while saving.
- If the user want the value to be displayed with the thousands

separator, such a numeric field should be defined under the Display Value Field.

Committing the Batch

Selecting the check-box provided for Batch Commit virtually groups/baskets the entire set of table forms. With this grouping, the system ensures that if a particular form in the table fails to be executed, the entire set of forms will be returned. Hence, all activities for the selected table is carried out in batches.

Defining the Form Filter

With the Form Filter screen you can specify expressions for the form filter condition.

The screenshot shows a dialog box titled "SPECIFYING EXPRESSIONS FOR FORM-LEVEL FILTER CONDITION". It contains three columns of selection panes: "Fields", "Operators", and "Functions". The "Fields" pane lists several date-related fields from the CSSMS_USR_PROFILE.D table. The "Operators" pane lists symbols for logical and arithmetic operations. The "Functions" pane lists various mathematical and string functions. Below these panes is a large "Expression Viewer" text area. At the bottom of the dialog are three buttons: "OK", "Clear", and "Close".

Click to select the **Field**, the **Operator** and the **Function** from the appropriate panes.

The expression you define will be displayed in the Expression Viewer pane.

Click OK to save the expression. Click Clear to refresh the screen. Click Close to close the screen without saving.

Data Versioning

Using this screen you can perform data versioning on an authorized form. The table version is tracked based on the date of modification. Check the check-box provided for Enable Data Versioning to ensure that the version is tracked.

Select Table to hold History Of Changes

Enable Data Versioning

Table

Version Identifier

If you select this option, the modifications made to the particular form are displayed as per date versioning.

Specifying Message Details

With the messaging screen, you can specify an alert message that can be sent either to the Creator of the form or to an Authorizer. Click the Message Details tab in the index screen. The Message Details screen will be populated on your screen.

Form Specific Message Details

Messaging Required

Available Message Types

Canceled Request for Creation
Canceled Request for Modification
Creation and Authorized
Creation and Put-On-Hold
Creation and Rejected

>

<

Chosen Message Types

Details for Message Types

Specific Messages Required

Message Type

Message Subject

Message Content

Available Fields For Subject

>

<

Mapped Fields For Subject

Available Fields For Content

>

<

Mapped Fields For Content

Available Recipients

>

<

Mapped Recipients

To activate the Messenger feature, you need to check the check-box provided for Messaging Required.

If you do not require this option, leave the Messaging required check box unchecked. Mails will be sent appropriately, only one mail will be sent for the entire batch.

The Message types, Recipients, Subject and Content fields are comes from the metadata.

Form Specific Message Details

Messaging Required

Available Message Types

Canceled Request for Modification

Creation and Authorized

Creation and Put-On-Hold

Creation and Rejected

Creation and Request For Authorizati

>

<

Chosen Message Types

Batch Commit

Canceled Request for Creation

Details for Message Types

Message Type Batch Commit

Specific Messages Required

Message Subject Infodom - \$INFODOM\$, Application - \$APPLNNAME\$,
Form -\$FORMNAME\$

Message Content Batch Transactions

Available Fields For Subject

N_ACTION_TYPE_CODE

N_ACTION_TYPE_KEY

>

<

Mapped Fields For Subject

Available Fields For Content

N_ACTION_TYPE_CODE

N_ACTION_TYPE_KEY

>

<

Mapped Fields For Content

Available Recipients

AUTHORIZER

>

<

Mapped Recipients

CREATOR

Save
Cancel

Select the Message Type from the Available list and click (>) to move the message type to the Chosen Message Types pane.

Example

Canceled Request for Modification

Form Specific Message Details	
<input checked="" type="checkbox"/> Messaging Required	
Available Message Types	Chosen Message Types
<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Creation Creation and Authorized Creation and Put-On-Hold Creation and Rejected Creation and Request For Authorizati </div>	<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Modification </div>
Details for Message Types	
<input type="checkbox"/> Specific Messages Required	
Message Type	Canceled Request for Modification
Message Subject	Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification
Message Content	Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification
Available Fields For Subject	Mapped Fields For Subject
<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE V_CARD_NBR D_ISSUE_DATE D_RECORD_END_DATE D_RECORD_START_DATE </div>	<div style="border: 1px solid gray; padding: 2px;"> (Empty) </div>
Available Fields For Content	Mapped Fields For Content
<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE V_CARD_NBR D_ISSUE_DATE D_RECORD_END_DATE D_RECORD_START_DATE </div>	<div style="border: 1px solid gray; padding: 2px;"> (Empty) </div>
Available Recipients	Mapped Recipients
<div style="border: 1px solid gray; padding: 2px;"> CREATOR </div>	<div style="border: 1px solid gray; padding: 2px;"> AUTHORIZER </div>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Select the check-box provided for Specific Messages Required to add a Specific Message.

Select the Message Type from the drop-down list box of the Message Type field. Message line appears automatically based on the selection of the event type.

Example

Canceled Request for Modification

Form Specific Message Details	
<input checked="" type="checkbox"/> Messaging Required	
Available Message Types	Chosen Message Types
<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Creation Creation and Authorized Creation and Put-On-Hold Creation and Rejected Creation and Request For Authorizati </div>	<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Modification </div>
Details for Message Types	
<input checked="" type="checkbox"/> Specific Messages Required	
Message Type	<div style="border: 1px solid gray; padding: 2px;">Canceled Request for Modification</div>
Message Subject	<div style="border: 1px solid gray; padding: 2px;">Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification</div>
Message Content	<div style="border: 1px solid gray; padding: 2px;">Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification</div>
Available Fields For Subject	Mapped Fields For Subject
<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE V_CARD_NBR D_ISSUE_DATE D_RECORD_END_DATE D_RECORD_START_DATE </div>	<div style="border: 1px solid gray; padding: 2px;"> (Empty) </div>
Available Fields For Content	Mapped Fields For Content
<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE V_CARD_NBR D_ISSUE_DATE D_RECORD_END_DATE D_RECORD_START_DATE </div>	<div style="border: 1px solid gray; padding: 2px;"> (Empty) </div>
Available Recipients	Mapped Recipients
<div style="border: 1px solid gray; padding: 2px;"> CREATOR </div>	<div style="border: 1px solid gray; padding: 2px;"> AUTHORIZER </div>
<div style="display: flex; justify-content: space-around; margin-top: 10px;"> Save Cancel </div>	

Subject line will appear automatically based on the selection of the event type.

Example

Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form - \$FORMNAME\$ - Cancel Request for Modification

Message content will appear automatically based on the selection of the event type.

Example

Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form - \$FORMNAME\$ -
Cancel Request for Modification

Double-click the Recipient name in the Available Recipients pane. The selected recipient/s are displayed in the Mapped Recipients pane.

Example

Authorizer

Form Specific Message Details	
<input checked="" type="checkbox"/> Messaging Required	
Available Message Types	Chosen Message Types
<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Creation Creation and Authorized Creation and Put-On-Hold Creation and Rejected Creation and Request For Authorizati </div>	<div style="border: 1px solid gray; padding: 2px;"> Canceled Request for Modification </div>
Details for Message Types	
<input checked="" type="checkbox"/> Specific Messages Required	
Message Type	Canceled Request for Modification
Message Subject	Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification
Message Content	Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ - Cancel Request For Modification
Available Fields For Subject	Mapped Fields For Subject
<div style="border: 1px solid gray; padding: 2px;"> V_CARD_NBR D_ISSUE_DATE D_RECORD_START_DATE F_LATEST_RECORD_INDICATOR V_ACCOUNT_CODE </div>	<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE D_RECORD_END_DATE </div>
Available Fields For Content	Mapped Fields For Content
<div style="border: 1px solid gray; padding: 2px;"> FIC_MIS_DATE V_CARD_NBR D_RECORD_END_DATE F_LATEST_RECORD_INDICATOR V_ACCOUNT_CODE </div>	<div style="border: 1px solid gray; padding: 2px;"> D_ISSUE_DATE D_RECORD_START_DATE </div>
Available Recipients	Mapped Recipients
<div style="border: 1px solid gray; padding: 2px;"> CREATOR </div>	<div style="border: 1px solid gray; padding: 2px;"> AUTHORIZER </div>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

- If you select Authorizer, the message will be sent to all the selected authorizer's for authorization.
- You need to click the Save with Authorization tab in the Index

screen so that the messages are functional. When you Save with Authorization, the next screen to be populated is the Authorization screen, where you can assign rights.

Similarly, select the Field/s for Subject and Fields for Content. . Available fields for the subject and content can be selected by the user.

Click Save to save the changes. Clicking Cancel pop's-up a message requesting you to confirm the cancellation without saving. Click Ok in the Pop-up.

Click Save with Authorization in the Index screen to save the changes with authorization. Clicking Save opens up the Assigning Rights screen.

Altering an Existing Form

To alter an existing form, select Alter Existing Forms option. Click the Application name field to open the drop-down list box. Select the name of the application whose form you wish to alter. On choosing the application name, the forms belonging to the selected application will be displayed in the Form Name field. Click the Form Name field to open the drop-down list box and select the form that you want to alter.

Alter forms apply only to fields and not to tables.

Select one of the following options...

- Create a New Form
- Alter Existing Forms
- Copy Forms
- Delete Forms
- Assign Rights
- Message Type Maintenance

Available Applications: DeFi

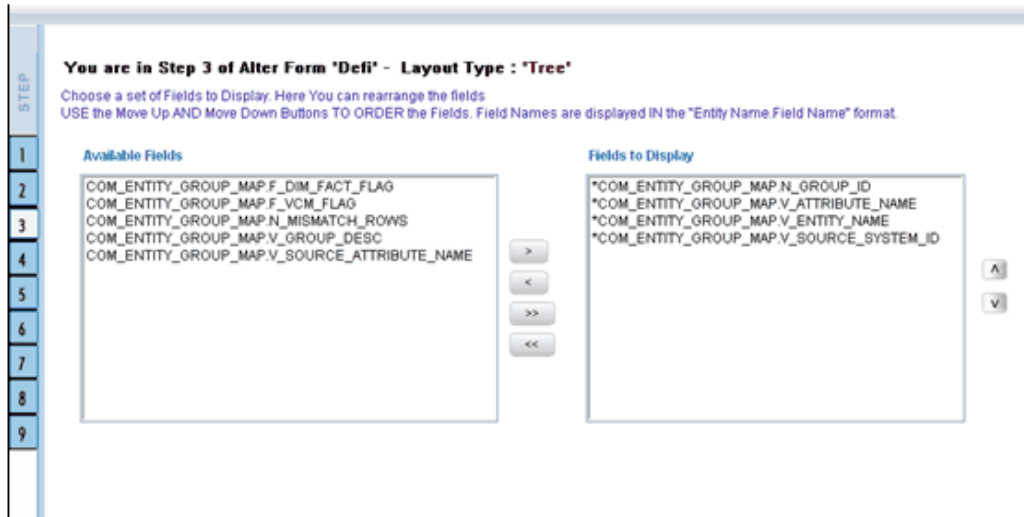
Available Forms: dimensional

Next> Cancel

Click Next to go to step 3. Click Cancel to discard the form selection that you have made.

Note: The forms that are displayed in the Form name list box are dependent on the DSN (Data Source Name) that you have specified.

The alter fields screen displays the list of fields of the selected form in the Chosen Fields pane. In this screen the fields, which are selected while creating the form are displayed in the Chosen Fields list and the fields that are not selected but available are shown under the Available Fields list.



Select the fields from the Available Fields pane, which you want to alter and click (>) to move to the Chosen Fields pane. To remove a field/s from the Chosen Fields pane to the Available Fields pane, click (<). To move all the fields to the Chosen Fields pane from the Available Fields pane, click (>>). To remove all the fields to the Available Fields pane, click (<<).

To arrange the fields that are displayed in the Choose Fields pane, click up arrow symbol to move a field up and down arrow symbol to move down. This order determines how the Fields are displayed in the Data Entry Form. This order can be different from the order in which the fields are in the underlying table.

Click **Back** to go to the previous screen. Click **Next** to go further. The alter sort fields screen displays the sort fields to be altered in the Chosen Fields pane with which you want to sort the table.

You are in Step 4 of Designing 'Defi'

Dimension Node Selection

Please Select the fields to be get displayed as the Dimensional Tree Nodes. Use **Move Up** and **Move Down** buttons for Ordering the level of Selected Dimensional Tree Nodes. Selection of more than one Entity requires Equi-Join Condition(s) to be specified for all participating Entities

Root :

Available fields

COM_ENTITY_GROUP_MAP.N_GROUP_ID
COM_ENTITY_GROUP_MAP.V_ATTRIBUTE_NAME
COM_ENTITY_GROUP_MAP.V_SOURCE_SYSTEM_ID

The Field Nodes

COM_ENTITY_GROUP_MAP.V_ENTITY_NAME

Navigation buttons: > < ^ v

Select the fields from the Available Fields pane, which you want to alter and click (>) to move to the Chosen Fields pane. To remove a field/s from the Chosen Fields pane to the Available Fields pane, click (<) . To move all the fields to the Chosen Fields pane from the Available Fields pane, click (>>) . To remove all the fields to the Available Fields pane, click (<<) .

Note: The user can change the root node name specified while designing the form.

Click Back to go to the previous screen. Click Next to go to next step.

The form screen displays the forms to be altered containing Field Name, Display Name, In View, In Edit/Add, Allow Add, Store Field as and Rules detail columns contain the data which are already selected while creating the form. You can alter the details for each of the field names.

You are in Step 5 of Designing 'Defi'

Please Select the descriptive fields to get displayed for the Dimensional Tree Nodes

STEP	Field Nodes	Alternate Display Fields
1	V_ENTITY_NAME	COM_ENTITY_GROUP_MAP.V_ENTITY_NAME
2		COM_ENTITY_GROUP_MAP.F_DIM_FACT_FLAG
3		COM_ENTITY_GROUP_MAP.F_VCM_FLAG
4		COM_ENTITY_GROUP_MAP.N_GROUP_ID
5		COM_ENTITY_GROUP_MAP.N_MISMATCH_ROWS
6		COM_ENTITY_GROUP_MAP.V_ATTRIBUTE_NAME
7		COM_ENTITY_GROUP_MAP.V_ENTITY_NAME
8		COM_ENTITY_GROUP_MAP.V_GROUP_DESC
9		COM_ENTITY_GROUP_MAP.V_SOURCE_ATTRIBUTE_NAME
		COM_ENTITY_GROUP_MAP.V_SOURCE_SYSTEM_ID

You can change the display name of the field name by entering a name in the Display Name field.

You can choose a field to be displayed by selecting the In View option as Display or Do not Display.

You can specify the edit options for a user by specifying the edit parameters. Click the **In Edit/Add** field to open the drop-down list box. You can choose the edit parameters like Text Field, Text Area, Select List, Protected Field, Read Only, Do Not Show, Check Box and URL. Select the edit parameter that you want to apply to a field.

Note: The AlternateDisplayField is displayed only if the selected table contains a foreign key or if the joined tables are selected.

To give the user permission to add to the field, select the Allow Add option against the field name.

To specify the field storage format click the Store Field as field to open the drop-down list box. You can choose the store format as Normal, Encrypted, Auto Generated or Formula.

You can also apply rules to a field. Click Rules to open the screen.

Click Back to go to the previous screen. Click Save to save the field detail settings

Copying an Existing Form

To copy an existing form, select Copy from Existing Forms option.

Select the application from which you want to copy a form. Click the Application name field to open the drop-down list box. Select the name of the application. On choosing the application name, the forms belonging to the selected application will be displayed in the Form Name field. Click the Form Name field to open the drop-down list box and select the form that you want to copy.

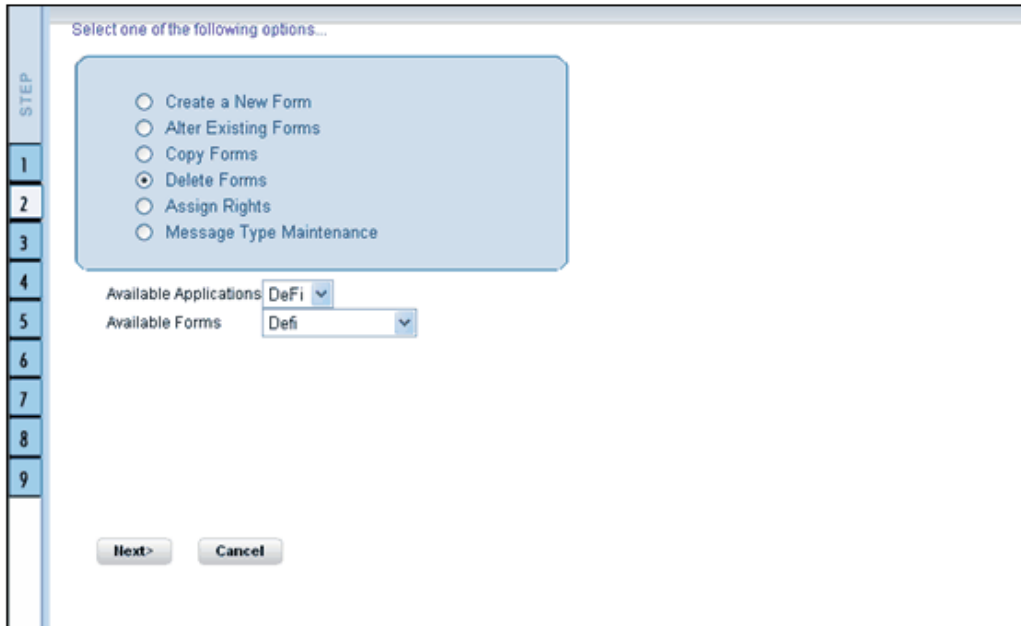
Select the application to which you wish to copy the new form. Click the Application name field to open the drop-down list box and select the application. Enter the name of the new form you are creating in the Save Form as field. This option allows creation of variants for a given form where you might want to change some user rights or some display options and other subtle variations on the form for a given layout and the underlying table.

Click Next to save the details of the newly created form. Click Cancel to discard the form selection that you have made and clear the name entered in the Save Form As field.

Deleting a Form

To delete an existing form, select **Delete Forms** option.

Select the application from which you want to delete a form. Click the Application name field to open the drop-down list box and select the name of the application. On choosing the application name, the forms belonging to the selected application will be displayed in the Form Name field. Click the Form Name field to open the drop-down list box and select the form that you want to delete.



Click **Next** to delete the form. A confirmation message is displayed which reads Do you want to delete the form Loss? Click **Ok** to confirm deletion. Click **Cancel** to cancel the delete request.

Assigning Rights to a Form

To assign rights to a form, select Assign Rights option.

Select one of the following options...

- Create a New Form
- Alter Existing Forms
- Copy Forms
- Delete Forms
- Assign Rights
- Message Type Maintenance

Available Applications: DeFi

Available Forms: Defi

Next> Cancel

Click the Application name field to open the drop-down list box. Select the application from which you wish to choose the form to which you want to assign rights. The chosen application will be displayed in the Application Name field. Click the Form Name field to open the drop-down list box. Select the form you want to assign rights to.

Example

Application name: ST

Form name: TreeForm

Click Next to go to step 3 or Click Cancel to discard the form selection that you have made.

The user list screen displays the list of available and assigned users. Click the < or > buttons to navigate through the list of users in case the number of users are more than what could be accommodated in one page.

Please specify the **Access Rights** to User for the created form.
 To withdraw all Access Rights from a User, please double click on User Name

AccountsForms

Available User List

- MEHAR
- SANTOSH
- SHANKAR
- RORUSER
- SATISH

< >

- View
- Add
- Edit
- Delete
- All above

Show Data Created by Current User only

Assigned User List

< >

Back to Forms Designer

Save Access Rights
Close

Select the user to whom you want assign the rights to from the Available User List pane and select the rights you want to assign to the user. You can assign View, Add, Edit, Delete or All above options. The user name will move to the Assigned User List once it is saved.

Please specify the **Access Rights** to User for the created form.
 To withdraw all Access Rights from a User, please double click on User Name

AccountsForms

Available User List

- MEHAR
- SANTOSH
- SHANKAR
- SATISH

< >

- View
- Add
- Edit
- Delete
- All above

Show Data Created by Current User only

Assigned User List

- RORUSER

< >

Back to Forms Designer

Save Access Rights

Close

The Authorize and Auto-Authorize options are applicable for all the forms that have been saved with the Authorize option.

Click Save Access Rights to save the rights you have defined for the selected Users. Click Close to close the Assign Rights screen.

To go back to the forms designer, click the Back to Forms Designer button. When you have finished assigning users, click Finish to return to the splash screen.

To open help for the Forms Designer screen click Help. To return to the DI splash screen, click Home.

Message Type Maintenance

For the maintenance of the Message Types, select the Message Type Maintenance option in the first screen of the Forms Designer Wizard.

The image shows a software dialog box with a vertical step indicator on the left side labeled "STEP" and numbers 1 through 9. Step 3 is currently selected. The main area of the dialog box contains the text "Select one of the following options..." and a list of five radio button options: "Create a New Form", "Alter Existing Forms", "Copy Forms", "Assign Rights", and "Message Type Maintenance". The "Message Type Maintenance" option is selected. At the bottom of the dialog box, there are two buttons: "Next>" and "Cancel".

Click Next to continue. The Message Type Maintenance screen is displayed.

Select the message category from the Message Type drop-down list. The message types are the same as those available in the Message Details screen as explained earlier.

Example

Canceled Request for Creation

The Message Subject field displays the subject line that will be displayed for the particular Message Type selected. You can make the required modifications in this field.

Example

Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ -
Cancel Request For Creation

The Message Content field displays the content of the message for the particular Message Type selected. You can make the required modifications in this field.

Example

Infodom - \$INFODOM\$, Application - \$APPLNNAME\$, Form -\$FORMNAME\$ -
Cancel Request For Creation

Double-click the Recipient name in the Available Recipients pane. The selected recipient/s moves to the Mapped Recipients pane.

Example

Authorizer

Note: If you select Authorizer, the message will be sent to all the selected authorizers for authorization.

Click Save to save the changes. On clicking Cancel, a message requesting you to confirm the cancellation without saving is displayed. Click OK to discard the changes.

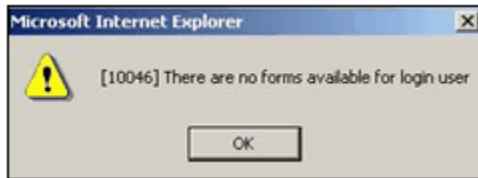
Entering Data

Click Data Entry to open the screen. In this screen you can view, edit, add, delete or authorize data. You can view, edit, add, delete or authorize based on the rights that are assigned to you during form creation.

You can query the record to get specific data using search option. You are also provided with the option to export the result set.

Note: To open multiple Data Entry windows, specify the URL of the Data Entry window as the value in the URL box in the Design Oracle Menu screen. It enables the user to perform the search operation in more than one screen.

For more details on designing the Oracle Menu section, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.



If the logged-in-user is not mapped with the forms and applications it will display an alert saying "There are no forms available for the login user".

The Forms frame displays the list of existing forms. The forms that are displayed are dependent on the rights assigned to user.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.

Viewing Form Details

Forms are displayed in View format by default. The forms are displayed based on the application names in the left pane. Based on the rights that are assigned to the user, he can access View, Edit, Add, Delete options. Click a form to view the details. The form details will be displayed in the layout that it was defined.

Example

Application Name: CAT Test

Form Name: Auth

In case of grid layout, the number of rows displayed is based on the number of rows that you specify in the Display ---Rows field.

Example

Display 5 Rows

To view all the records in the table click Next to go to the next set of records. To return to the previous set of records, click Back.

It is recommended that you assign an easily viewable number of rows to be displayed. The user can view records as a Single Record, Editable View, Grid layouts, multi column or wrapped rows layout.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.

Single Record layout

To view a single record at a time, click Single Record.

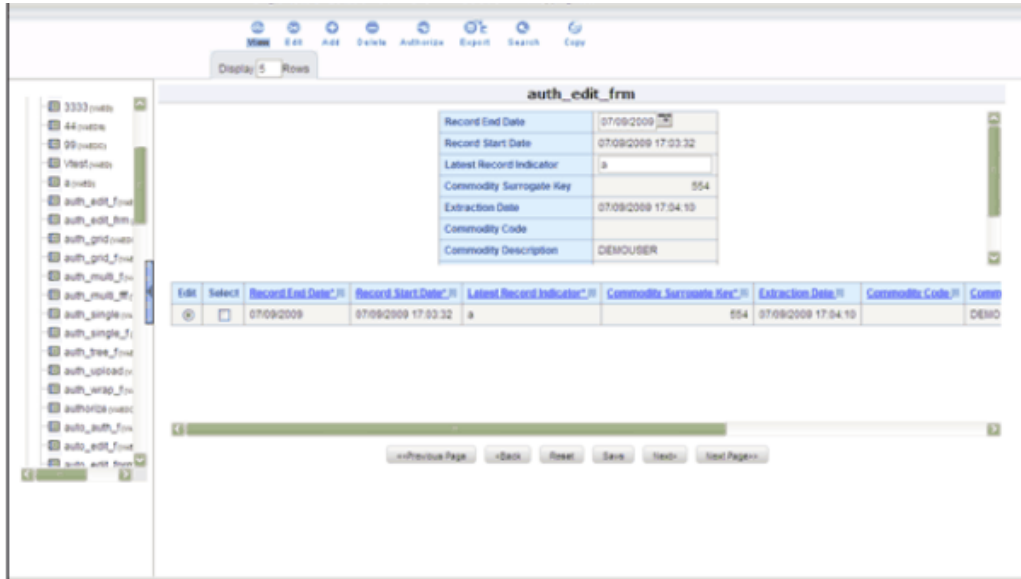
To view all the records in the table click Next to go to the next record. To return to the previous record, click Back.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.



auth_single_f	
Extraction Date*	07/13/2009 11:51:53
Currency Code Surrogate Key*	343
Currency Code*	2321
Record End Date	07/23/2009 14:17:08
Record Start Date	07/23/2009 14:17:16
Latest Record Indicator	U
Local Currency Indicator	
Reporting Currency Indicator	Unauthorized
Residual Currency Indicator	
Currency Risk Factor	2
Currency Description	3
Currency Iso Code	2
Currency Short Description	DEMOUSER
Currency Type Description2	2
Currency Type	2

To view a record in the editable view, click Editable View. In the editable view you can view and edit records, which can be selected from the grid of records.



The editable view format displays a single record in the top frame, which can be edited. The grid layout is displayed in the frame below. To edit a record, select the Edit option against the record in the grid layout. The selected record will be displayed as a single record with editable fields. The main advantage is you can easily compare the changes you have made in the data with the data shown in grid format

The number of records to be displayed in the form can be specified in the Display Rows text box.

To save the changes that you have made to the field/s, click Save. Click Reset to return the record settings to its original field settings.

Grid Layout

To view a record in a grid layout, click Grid. This is the default layout that is displayed while viewing a form.

Select	Extraction Date	Currency Code	Surrogate Key	Currency Code	Record End Date	Record Start Date	Latest Record Indicator	Local Currency
<input type="checkbox"/>	07/13/2009 11:51:53		343	2321	07/13/2009 11:59:15		U	
<input type="checkbox"/>	12/31/1999		2	EUR	07/10/2009 16:30:24	07/10/2009 16:30:05	N	
<input type="checkbox"/>	12/31/1999		3	JPY	12/31/1999	11/30/1999	Y	
<input type="checkbox"/>	12/31/1999		4	GBP	12/31/1999	11/30/1999	N	
<input type="checkbox"/>	12/31/1999		5	EUR	07/10/2009 17:05:43	07/10/2009 17:05:43	N	

To sort a record based on a field, click the column title hyperlink.

Example

Click FIC_MIS_DATE column title hyperlink to sort fields alphabetically based on the MIS Date.

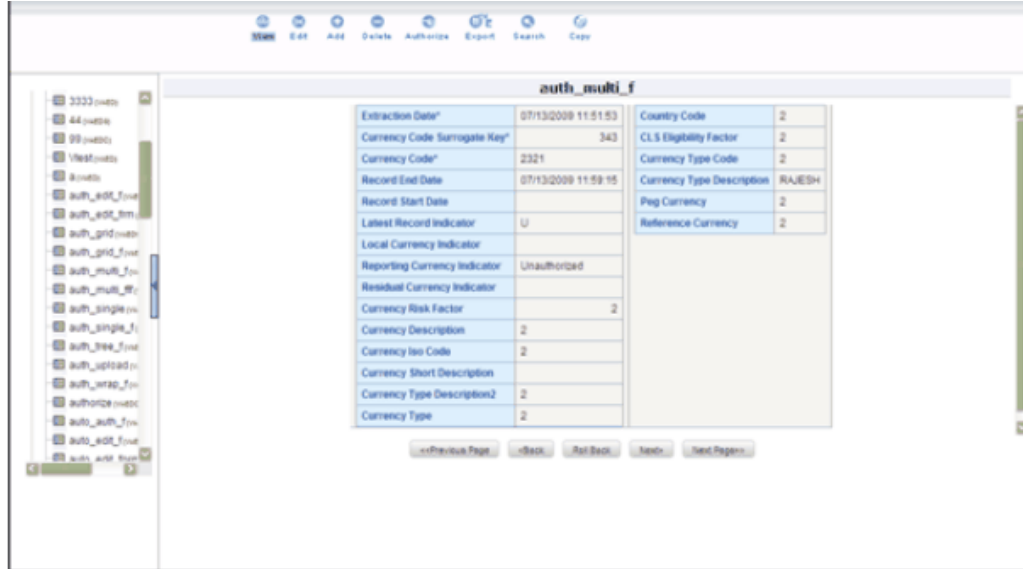
The number of records to be displayed in the form can be specified in the Display Rows text box.

To view all the records in the table click Next. To return to the previous set of records, click Back.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.

Multi Column Layout

To view all the columns of a selected record, click Multi Column. This layout enables you to view a record without having to scroll or with minimum scrolling to view all the columns.



To view all the records in the table, click Next. To return to the previous record, click Back.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.

Wrapping Row Layout

To view all the rows of a selected record, click Wrapping Row. This layout enables you to view a wrapping row easily without having to scroll horizontally to view all the data.

Extraction Date*	Currency Code Surrogate Key*	Currency Code*	Record End Date	Record Start Date
07/13/2009 11:51:53	343	2321	07/13/2009 11:59:15	
Latest Record Indicator	Local Currency Indicator	Reporting Currency Indicator	Residual Currency Indicator	Currency Risk Factor
U		Unauthorized		2
Currency Description	Currency Iso Code	Currency Short Description	Currency Type Description2	Currency Type
2	2		2	2
Country Code	CLS Eligibility Factor	Currency Type Code	Currency Type Description	Peg Currency
2	2	2	RAJESH	2
Reference Currency				
2				

To view all the records in the table click Next to go to the next record. To return to the previous record, click Back.

Note: The roll back option can be used only for authorized record to undo the modifications made to it.

Editing a Form

To edit a form, check the select option in the Select column and click **(edit)** button. The form fields are displayed with editable fields, which you can modify if required.

To save the changes that you have made to the field/s, click Save. Click Reset to return the record/table settings to its original field settings.

The records also can be edited in the layouts mentioned earlier (in View mode). All the fields will be displayed in the editable grid, but the primary key fields cannot be edited so will be displayed in un-editable format.

Click Next to edit the next set of records. To return to the previous records, click Back.

Roll Back

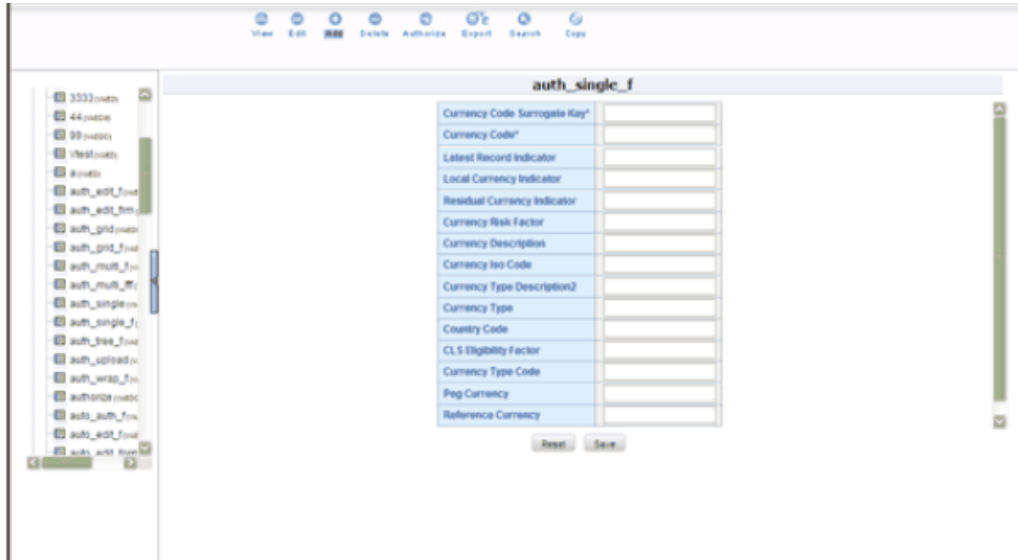
The Roll Back option can be used only for authorized records. After the records are edited and saved, the roll back operation can be performed in view mode by selecting the particular record to undo the modifications made to it.

- Once the record is edited using Edit option, its modified flag is set and the record with its modified flag set alone can be rolled back.

- If the record is not an authorized record it will display a alert saying roll back functionality is available only for records which has its authorization flag set to "Modified".

Adding Rows to a Form

To add data to the selected table in a form, specify the number of rows to be added in Rows field in the options frame and click **(add)** button.



Enter data in these new fields and save them by clicking Save. Click Reset to return the table settings to its original field settings.

Note: If the user want to see the display with the thousands separator for any numeric columns, the input should be given in the same manner.

Deleting a Record in a Form

To delete a record, check the select option in the Select column against the record you wish to delete and click delete.

A warning message will be displayed prompting you to confirm deletion. Click Ok to delete the record or Cancel to discard deletion.

Authorizing Data

The Data Entry module allows you to authorize data entered during form creation

provided the table contains a primary key field.

To authorize data, select the form and click Authorize. The records that are required to be authorized will be displayed with Auth, Rej, au_fname, au_idPK (Primary Key identifier), au_lname, AuthFlag (representing the status of the record), contract, MakerDate, MakerID and phone details. If there are no records to authorize, the screen will display the message No records to be authorized.

Auth	Rej	Hold	Extraction Date	Currency Code Surrogate Key#	Currency Code	Record End Date	Record Start Date	Latest Record Indicator	Local Co
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/13/2009 11:51:53	343	2321	07/13/2009 11:59:15		U	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/09/2009 20:07:08	79	na	07/13/2009 12:00:47		U	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/09/2009 20:09:41	96	1	07/09/2009 20:09:41	07/09/2009 17:23:27	U	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/13/2009 12:00:06	32321	1	07/13/2009 12:00:06			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/13/2009 12:21:01	777	34	07/13/2009 12:21:01			2

Note: The primary key fields in the record are displayed in red as PK.

You can authorize only those records that are created by another user if you have authorization rights. If you do have authorization rights, the record created by another user, the AuthFlag will display U, which suggests that it is an unauthorized record requiring authorization.

If the record is already authorized, the AuthFlag will display A. If any record is rejected, if the form is authorized, then the AuthFlag will be displayed as R. If the Authorized user put the records on Hold, then the AuthFlag will be displayed as UH. After Authorizing, the Auth Flag will be set to A.

Any changes (modification / deletion) made to the records after authorization will be marked for authorization and can only be authorized by the users who have the privilege. The new records created before authorization can be edited or deleted by any user who has the privilege to do the same.

To authorize a record, select the Auth option against the record you wish to authorize and click Save. To reject/delete a record, select the check box in the Reject column against the record and click Save. A warning message is displayed. The records selected for deletion will be deleted from the table. Proceed? Click OK to confirm deletion or click Cancel to delete the request.

Note: You can authorize forms only if the authorize rights have been assigned to you.

To authorize the next set of records, click Next. To authorize all the records in the form, select the Authorize all option and click Save.

To reject all records, select the Reject all and click Save. If the authorizer is not sure whether to authorize the records the Hold all option can be used, which can be authorized or rejected at the later point.

Re-authorizing Records

The Records to be reauthorized link will be displayed only if some other user has modified the authorized records. An authorized record that has been modified will display the AuthFlag M, which suggests that the record have been modified. To reauthorize modified records, click the Records to be re-authorized link to open a new screen.

Auth	Rej	Hold	Extraction Date	Currency Code	Surrogate Key	Currency Code	Record End Date	Record Start Date	Latest Record Indicator	Local Currency Indicator	Reporting Currency
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	07/23/2009 14:20:25	666	3		07/13/2009	07/23/2009 14:20:25	8		Modified
			07/13/2009 12:14:49	666	3		07/13/2009 12:19:20	07/13/2009 12:20:10	8		Modified

The record that needs re-authorization is displayed with new details. The original authorized record is also displayed. To re-authorize/reject/put-on-Hold the records select the Auth, Rej or On-Hold option against it and click Save.

Click Next to authorize the next set of records,. To close the screen, click Close. Reset Button will reset the check-boxes to null.

A mail will be sent to the creator that records are authorized/rejected/put-on-hold.

OFSAA Attributes

Overview

This chapter describes the creation and maintenance of OFSAA Attributes. Specifically, this chapter will cover:

- Attribute Summary & Detail Screens
- Navigation within the Attribute Summary Screen
- Navigation within the Attribute Detail Screen

See Overview of OFSAA Infrastructure, page 2-1 for details on how Attributes are used in OFS Analytical Applications. See *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on bulk loading dimension attributes

Summary & Detail Screens

Upon initially navigating to Master Maintenance > Dimension Management > Attributes, a summary screen is displayed showing all of the defined Attributes for one dimension (your first dimension alphabetically that supports attributes). By selecting a dimension and by using search criteria, you can control the set of Attributes that are displayed. When you Add, Edit, Copy, or View an Attribute, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Attributes summary screen, the Attributes associated with your first dimension are presented in a summary grid. The Attributes summary screen has three containers:

- Dimension
- Search
- Dimension Attributes

Dimension Container

Attributes are properties of dimensions. To add or maintain an attribute, you must first select the dimension to which an attribute belongs. The Dimension drop down list box in the Dimension container displays all of your Key Processing dimensions (both seeded and user-defined) and any Standard Dimensions that are configured to support attributes.

Search Container

Among other properties, each attribute possesses a Code value, a Name, and a Data Type. You may search on any of these properties in the Search container.

Search			
Code	<input type="text"/>	Name	<input type="text"/>
Description	<input type="text"/>		
Enabled	<input type="radio"/> Yes <input type="radio"/> No	Is Leaf	<input type="radio"/> Yes <input type="radio"/> No
Attribute Name	<input type="text"/>	Attribute Value	<input type="text"/>

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control clears any search criteria you may be using and refreshes the screen.

Dimension Attributes Container

The Dimension Attributes container presents a grid containing all of the Attributes that meet your search criteria. The Dimension Attributes summary grid offers several controls that allow you to perform different functions when an Attribute is selected.

Dimension Attributes					
<input type="checkbox"/>	Code	Name ▲	Data Type	Required	Seeded
<input type="checkbox"/>	5001	ACCOUNT TYPE	DIMENSION	No	Yes
<input type="checkbox"/>	5002	AGGREGATE METHOD	DIMENSION	No	Yes
<input type="checkbox"/>	5003	COLUMN NAME	VARCHAR2	No	Yes
<input type="checkbox"/>	5004	COLUMN PROPERTY	DIMENSION	Yes	Yes
<input type="checkbox"/>	5050	ROLLUP SIGNAGE	DIMENSION	Yes	Yes
<input type="checkbox"/>	5000	WEIGHTING FE	DIMENSION	No	Yes

To select an Attribute, click on a check box in the first column of the grid. More than one Attribute can be selected at a time but this will cause some of the controls to become disabled. Clicking on a check box a second time de-selects an Attribute.

You may select or deselect all of the Attributes in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Code column header.

Add

Clicking on the Add control begins the process of building a new Attribute. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the detailed definition of an Attribute on a read-only basis. The View control is only enabled when a single Attribute has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify an existing Attribute. The Edit control is only enabled when a single Attribute has been selected.

Copy

Selecting a single row out of the grid enables the Copy control. Clicking on the Copy control allows you to create a copy of an existing Attribute. The Copy control is only enabled when a single Attribute has been selected.

Check Dependencies

Select an attribute and then click on the Check Dependencies control to generate a report on all dimension members that utilize your selected attribute. For example, if you have created an attribute named Color and have assigned values of Red, White, and Blue to dimension members #1, #2, and #3, Checking Dependencies for the Color attribute will result in a report indicating that dimension members #1, #2, and #3 utilize the Color attribute.

The Check Dependencies control is only enabled when a single attribute has been

selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Attribute(s) you have selected. OFSAAI will not allow you to delete Attributes which have any dependencies (see Check Dependencies above).

Dimension Attributes Summary Grid

The following columns categorize each Attribute in the summary grid:

- Code
- Name
- Data Type
- Required
- Seeded

Code

Displays the Attribute's Code value.

Name

Displays the Attribute's short name. Performing a "mouse-over" on an Attribute Name displays the Attribute's description

Data Type

Displays the Attribute's data type (String, Number, Date, or Dimension).

Required

Attributes are either "Required" (Yes) or optional (No).

When creating a new dimension member, you must provide an attribute value for any attribute that is "Required". Only certain seeded attributes are "Required". You may not create "Required" user-defined attributes.

Seeded

Displays whether or not an Attribute is seeded. You may not edit or delete seeded attributes.

Navigation within the Detail Screen

When you Add, Edit, Copy, or View an Attribute, the Attributes Detail screen is displayed.

The screenshot shows the 'Attributes' detail screen. At the top, there is a breadcrumb trail: 'Attributes > Attribute Definition (New Mode)'. Below this is a 'Dimension' section with a dropdown menu set to 'Financial Element'. The main area is divided into two columns: 'Attribute Details' and 'Attribute Properties'. The 'Attribute Details' section includes fields for 'Code *' (with value '5051' and a generate code icon), 'Name *' (with value 'New Attribute'), and 'Description' (with value 'New Financial Element Attribute'). The 'Attribute Properties' section includes 'Data Type' (set to 'DATE'), 'Dimension' (a dropdown menu), 'Required Attribute' (radio buttons for 'Yes' and 'No', with 'No' selected), and 'Default value' (with value 'MM/DD/YYYY' and a date picker icon).

Attribute Functionality

See Overview of OFSAA Infrastructure for details on how Attributes are used in OFS Analytical Applications.

Dimension Container


Displays the name of the dimension to which an Attribute belongs. When Editing or Copying an existing Attribute, this is a read-only value. When Adding a new Attribute, you must select the dimension to which you want your new attribute to be assigned.

The screenshot shows the 'Dimension' container section. It features a dropdown menu labeled 'Dimension' with the value 'Financial Element' selected.

Attribute Details Container

Code

When Adding a new Attribute, you must select a Code value to which you want your new attribute to be assigned. Code values for each attribute belonging to a dimension must be unique, but you are otherwise free to pick any numeric value you wish. You may also click the Generate Code shortcut key to automatically generate a new Code value.

Attribute Details	
Code *	<input type="text" value="5051"/> 
Name *	<input type="text" value="New Attribute"/>
Description	<input type="text" value="New Financial Element Attribute"/>

You must supply a Code value before you can save a new Attribute definition and you may not change a Code value once an Attribute definition has been saved.

Note: When Editing an existing Attribute, Code is a read-only value; and when Copying an existing Attribute, you must supply a new Code value

Name

Used to name or re-name your Attribute. You must supply a Name (or a new name if you wish to re-name your Attribute) before you can save an Attribute definition.



Description

Used to store a longer description of your Attribute.

Attribute Properties Container




Data Type

Select a Data Type for your Attribute. For Attributes that have already been saved, you may not modify Data Type.

Attribute Properties	
Data Type	DATE 
Dimension	<div style="border: 1px solid black; padding: 2px;"> DATE DIMENSION NUMBER STRING </div>
Required Attribute	
Default value	MM/DD/YYYY 

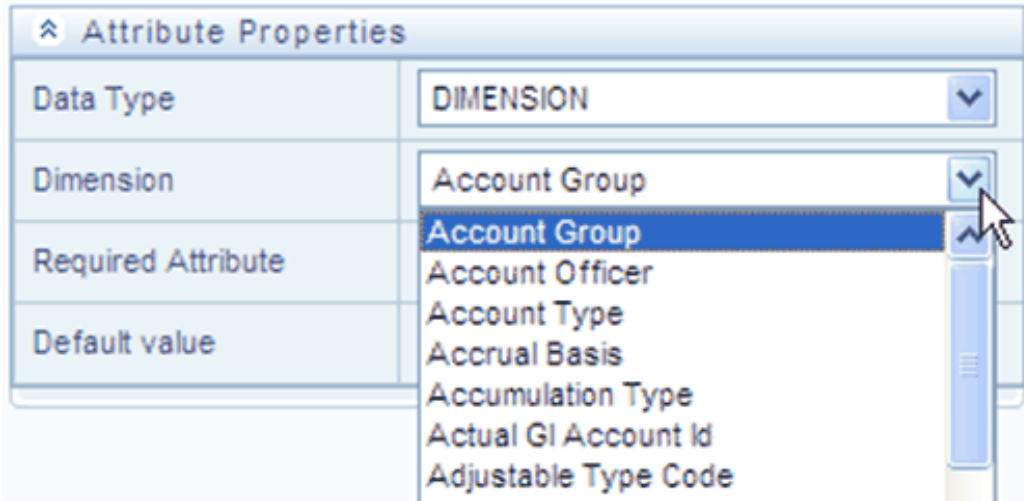
Date, Number, & String Data Types

If you have selected the Date, Number, or String Data Type, the Dimension drop down list box is disabled.

Attribute Properties	
Data Type	DATE 
Dimension	
Required Attribute	<input type="radio"/> Yes <input checked="" type="radio"/> No
Default value	MM/DD/YYYY 

Dimension Data Type

If you have selected the Dimension Data Type, the Dimension drop down list box is enabled. You may select any dimension to serve as a Dimension Attribute.



Required Attribute

Various OFSAA engines utilize attributes within their processing. For example, both OFSAA Transfer Pricing and OFSAA Profitability Management utilize the Account Type attribute in order to understand whether a balance is a debit balance or a credit balance, on balance sheet or off balance sheet.

You may not create user-defined Required attributes.

Default Value

Use to set a default value for your attribute. When you create a new dimension member, each attribute that has a Default Value is set to its default value for your convenience.

OFSAA Dimension Members

Summary & Detail Screens

Upon initially navigating to Master Maintenance > Dimension Management > Members, a summary screen is displayed showing all of the defined Dimension Members for one dimension (your first dimension alphabetically). By selecting a dimension and by using search criteria, you can control the set of Dimension Members that are displayed. When you Add, Edit, Copy, or View a Dimension Member, a detail screen is displayed.

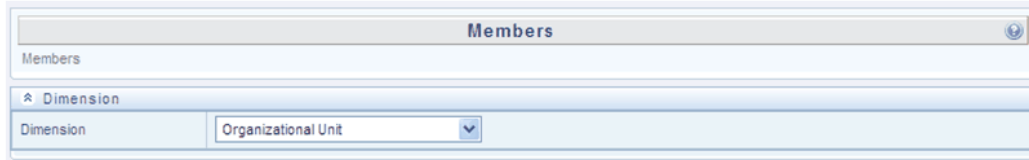
Navigation within the Summary Screen

When you first navigate to the Dimension Members summary screen, the Dimension Members associated with your first dimension are presented in a summary grid. The Dimension Members summary screen has three containers:

- Dimension
- Search
- Dimension Members

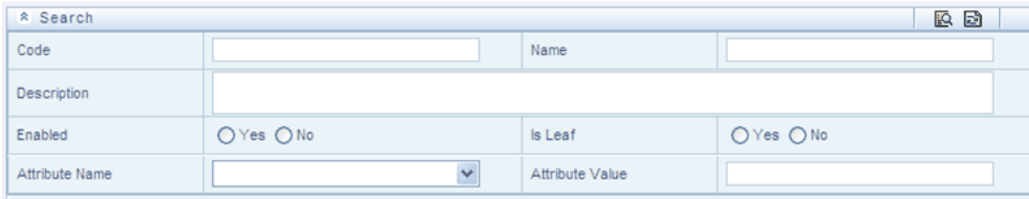
Dimension Container

To add or maintain a Dimension Member, you must first select the dimension to which a Dimension Member belongs. The Dimension drop down list box in the Dimension container displays all of your dimensions that are configured to be viewable (not every dimension is viewable through the application user interface; for details on which dimensions are viewable, see the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide*..



Search Container

Each Dimension Member possesses a Code value, a Name, and a Description. Dimension Members also have the properties of being enabled or disabled and of being a leaf member (last-descendent-child value) or a rollup member (representing a rollup point in a hierarchy). Finally, each Dimension Member value is assigned an attribute value for each its attributes. You may search on any of these properties in the Search container.



Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control clears any search criteria you may be using and refreshes the screen.

Dimension Members Container

Dimensions are comprised of finite lists of Dimension Members. The Dimension Members container presents a grid containing all of the Dimension Members that meet your search criteria. The Dimension Members summary grid offers several controls that allow you to perform different functions when a Dimension Member is selected.

To select a Dimension Member, click on a check box in the first column of the grid. More than one Dimension Member can be selected at a time but this will cause some of the controls to become disabled. Clicking on a check box a second time deselects a Dimension Member.



You may select or deselect all of the Dimension Members in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Code column header.

Add

Clicking on the Add control begins the process of building a new Dimension Member. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the detailed definition of a Dimension Member on a read-only basis. The View control is only enabled when a single Dimension Member has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify an existing Dimension Member. The Edit control is only enabled when a single Dimension Member has been selected.

Copy

Selecting a single row out of the grid enables the Copy control. Clicking on the Copy control allows you to create a copy of an existing Dimension Member. The Copy control is only enabled when a single Dimension Member has been selected.

Check Dependencies

To generate a report on the hierarchies that utilize a selected Dimension Member, select a single Dimension Member and click on the Check Dependencies control. The Check Dependencies control is only enabled when a single Dimension Member has been selected.

Delete

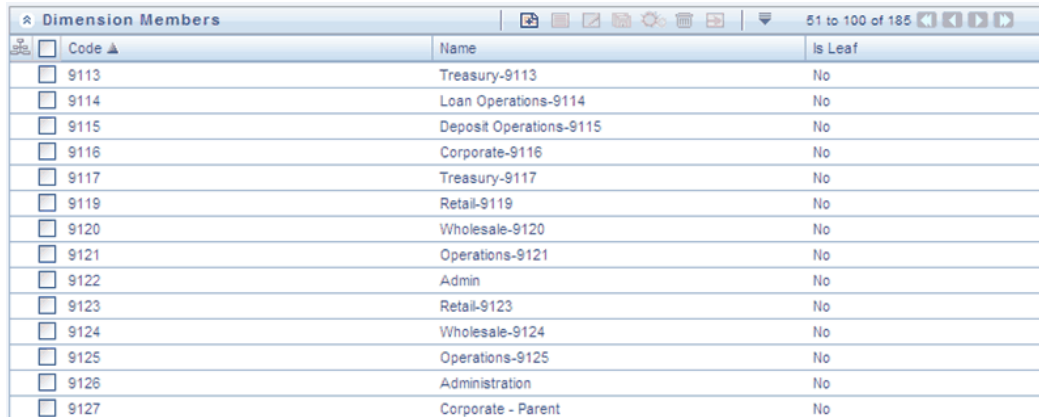
Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Dimension Member(s) you have selected.

Note: OFSAA Infrastructure will not allow you to delete any Dimension Member that is utilized within a hierarchy (see Check Dependencies above).

Dimension Members Summary Grid

The following columns categorize each Dimension Member in the summary grid:

- Code
- Name
- Is Leaf



<input type="checkbox"/>	Code ▲	Name	Is Leaf
<input type="checkbox"/>	9113	Treasury-9113	No
<input type="checkbox"/>	9114	Loan Operations-9114	No
<input type="checkbox"/>	9115	Deposit Operations-9115	No
<input type="checkbox"/>	9116	Corporate-9116	No
<input type="checkbox"/>	9117	Treasury-9117	No
<input type="checkbox"/>	9119	Retail-9119	No
<input type="checkbox"/>	9120	Wholesale-9120	No
<input type="checkbox"/>	9121	Operations-9121	No
<input type="checkbox"/>	9122	Admin	No
<input type="checkbox"/>	9123	Retail-9123	No
<input type="checkbox"/>	9124	Wholesale-9124	No
<input type="checkbox"/>	9125	Operations-9125	No
<input type="checkbox"/>	9126	Administration	No
<input type="checkbox"/>	9127	Corporate - Parent	No

Code

Displays the Dimension Member's Code value.

Name

Displays the Dimension Member's short name. Performing a "mouse-over" on a Dimension Member Name displays the Dimension Member's description.

Is Leaf

Displays the Dimension Member's "Is Leaf?" property. Members may be declared to be either "leaf members" or "rollup members". When building a hierarchy in OFSAAI, "leaf members" are those dimension members that have no descendent dimension members. In building a dimension member set, you must have at least some rollup members (Is Leaf = No) before you can construct a multilevel hierarchy.

Your business data is normally expressed at the leaf level. An individual mortgage instrument record, for example, would belong to a (leaf level) cost center for a (leaf level) principal balance General Ledger Account and would carry a (leaf level) designation of Product.

Navigation within the Detail Screen

When you Add, Edit, Copy, or View a Dimension Member, the Dimension Members Detail screen is displayed.

The screenshot shows the 'Members' detail screen in 'new Mode'. The 'Dimension' dropdown is set to 'Product'. The 'Member Details' section includes fields for Code, Name, Description, Enabled (Yes/No), and Is Leaf (Yes/No). The 'Member Attributes' table lists various attributes and their values:

Attribute	Value
COMMON COA ID *	VAR_1
ROLLUP SIGNAGE *	*
ACCRUAL BASIS CODE	Actual/360
NewAttr	Floating Rate
NewAttr123455	Floating Rate
OFFSET ORG ID	-- Select --
PRODUCT CODE	

Dimension Member Functionality

See Overview of OFSAA Infrastructure for details on how Dimension Members are used in OFS Analytical Applications.

Dimension Container

Displays the name of the dimension to which a Dimension Member belongs. When Editing or Copying an existing Dimension Member, this is a read-only value. When Adding a new Dimension Member, you must select the dimension to which you want your new Dimension Member to be assigned.

The screenshot shows the 'Dimension' container with a dropdown menu displaying 'Product'.



Dimension Member Details Container

Code

When Adding a new Dimension Member, you must select a Code value to which you want your new Dimension Member to be assigned. Code values for each Dimension Member belonging to a dimension must be unique, but you are otherwise free to pick any numeric value you wish. You may also click the Generate Code shortcut key to automatically generate a new Code value.

You must supply a Code value before you can save a new Dimension Member definition and you may not change a Code value once a Dimension Member definition has been saved.

- When Editing an existing Dimension Member, Code is a read-only value
- When Copying an existing Dimension Member, you must supply a new Code value

Member Details	
Code *	9067000943 
Name *	<input type="text"/>
Description	<input type="text"/>
Enabled	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Leaf	<input type="radio"/> Yes <input checked="" type="radio"/> No
Copy Attribute Assignment From	<input type="text"/> 

Name

Used to name or re-name your Dimension Member. You must supply a Name (or a new name if you wish to re-name your Dimension Member) before you can save a Dimension Member definition.

Description

Used to store a description of your Dimension Member.

Enabled





Not used in the current release.

Is Leaf

Member may be declared to be either "leaf members" or "rollup members". When building a hierarchy in OFSAAL, "leaf members" are those dimension members that have no descendent dimension members. In building a dimension member set, you must have at least some rollup members (Is Leaf = No) before you can construct a multilevel hierarchy.

Copy Attribute Assignment From

Instead of manually completing all the attribute value assignments for a new Dimension Member, you may copy attribute assignments from a pre-existing Dimension Member. To do so, click the ellipses adjacent to Copy Attribute Assignment From field to open the Member Browser window. You may select a member directly or you may search for the member whose attributes you wish to copy. Once you have selected a member and clicked OK, the attribute values of the member you selected are copied into the definition of your new Dimension Member.

Members			
Dimension: Organizational Unit			
<input type="text"/> Search  			
Code	<input type="text"/>	Name	<input type="text"/>
Description	<input type="text"/>		
Enabled	<input type="radio"/> Yes <input type="radio"/> No	Is Leaf	<input type="radio"/> Yes <input type="radio"/> No
Attribute Name	<input type="text"/>	Attribute Value	<input type="text"/>
<input type="text"/> Dimension Members 1 to 50 of 185 			
Admin			
Administration			
All Orgs			
Bank 1			
Bank 1-9067000908			
Bank 2			
BRANCH A1			
BRANCH A2			
Branch Admin			
BRANCH B1			
COMPANY A			
COMPANY B			
COMPANY C			
Consumer Direct East			
Consumer Direct West			
<input type="text"/> 			
<input type="button" value="Ok"/> <input type="button" value="Close"/>			

Dimension Member Attributes Container

If you have not copied attribute values from a pre-existing dimension member using the Copy Attribute Assignment From feature described above, assign them in the Member Attributes container.

- Dimension Member Attributes have defined data types including String, Number, Date, and Dimension. If an attribute is a Date data type, use the calendar control to select a date. If an attribute is a Number or String data type, enter your free-form value directly. If an attribute is a Dimension data type, select your value from the

drop down list box.

- Attributes marked with an asterisk indicate required attributes.

Member Attributes	
Attribute	Value
COLUMN PROPERTY *	Balance
ROLLUP SIGNAGE *	+
ACCOUNT TYPE	-- Select --
AGGREGATE METHOD	-- Select --
COLUMN NAME	
WEIGHTING FE	-- Select --

Default Values

If a Member Attribute is defined as having a default value, the default value will be displayed when you create a new Dimension Member.

OFSAA Hierarchies

Overview of OFSAA Hierarchies

This chapter describes the creation and maintenance of OFSAA Hierarchies. Specifically, this chapter will cover:

- Hierarchy Summary & Detail Screens
- Navigation within the Hierarchy Summary Screen
- Navigation within the Hierarchy Detail Screen

See Overview of OFSAA Infrastructure, page 2-1 for details on how Hierarchies are used in OFS Analytical Applications. See the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide* for details on bulk loading hierarchies.

Summary & Detail Screens

Upon initially navigating to Master Maintenance > Dimension Management > Hierarchies, a summary screen is displayed showing all of the defined Hierarchies for one dimension (your first dimension alphabetically that supports hierarchies). By selecting a dimension and by using search criteria, you can control the set of Hierarchies that are displayed. When you Add, Edit, Copy, or View a Hierarchy, a detail screen is displayed.

Hierarchies					
Hierarchies					
^ Dimension					
Dimension	Organizational Unit				
^ Search					
Folder	GASEG	Hierarchy Name			
Dimension Member Code		Dimension Member Name			
^ Hierarchies					
<input type="checkbox"/>	Name ▲	Display Level	Created By	Creation Date	Last Modification Date
<input type="checkbox"/>	Standard Cost Center Hierarchy	1	PFTADMINTRAMAN	30-NOV-09 20:47:56	09-DEC-09 11:40:32

Navigation within the Summary Screen

When you first navigate to the Hierarchies summary screen, the Hierarchies that are stored within your current default folder and that are associated with your first dimension are presented in a summary grid. The Hierarchies Summary screen has three containers:

- Dimension
- Search
- Hierarchies

Dimension Container

Select the Dimension of the hierarchies you wish to View. When you change your dimension selection in the summary screen, the screen refreshes and displays the Hierarchies that are stored within your current default folder.

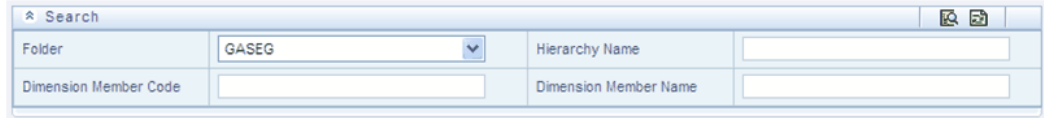
^ Dimension	
Dimension	Organizational Unit

Note: The dimensions drop down list will only display dimensions that are configured to support hierarchies.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences. You may select a different Folder or you may remove the Folder constraint entirely by selecting the "blank" Folder, i.e., no Folder. You may also

search by Hierarchy Name, Dimension Member Code, and/or Dimension Member Name.



Search Control

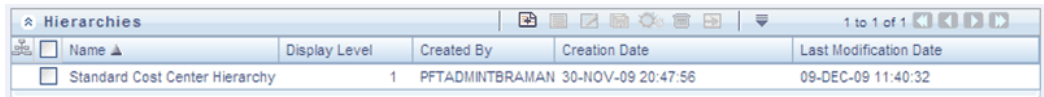
Searches for Hierarchy Name, Dimension Member Code, and Dimension Member Name are wildcard searches, i.e., searching for Hierarchy Names like "standard" will find any hierarchies that include "standard" within their names. When searching by Dimension Member Code or by Dimension Member Name, the application will find any or all hierarchies that utilize that dimension member but only if the member is not found in the hierarchy's "orphan" branch (see discussion of Orphan branches below). Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control clears any search criteria you may be using, resets Folder to your default Folder, and refreshes the screen.

Hierarchies Container

The Hierarchies container presents a grid containing all of the Hierarchies that meet your search criteria. The Hierarchies summary grid offers several controls that allow you to perform different functions when a Hierarchy is selected.



<input type="checkbox"/>	Name ▲	Display Level	Created By	Creation Date	Last Modification Date
<input type="checkbox"/>	Standard Cost Center Hierarchy	1	PFTADMINTRAMAN	30-NOV-09 20:47:56	09-DEC-09 11:40:32

To select a Hierarchy, click on a check box in the first column of the grid. More than one Hierarchy can be selected at a time but this will cause some of the controls to become disabled. Clicking on a check box a second time deselects a Hierarchy.

You may select or deselect all of the Hierarchies in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add

Clicking on the Add control begins the process of building a new Hierarchy. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the detailed definition of a Hierarchy on a read-only basis. The View control is only enabled when a single Hierarchy has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify an existing Hierarchy. The Edit control is only enabled when a single Hierarchy has been selected.

Copy

Selecting a single row out of the grid enables the Copy control. Clicking on the Copy control allows you to create a copy of an existing Hierarchy. The Copy control is only enabled when a single Hierarchy has been selected.

Check Dependencies

To generate a report on the OFSAA rules that utilize a selected Hierarchy, select a single Hierarchy and click on the Check Dependencies control. The Check Dependencies control is only enabled when a single Hierarchy has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Hierarchy or Hierarchies you have selected.

Note: OFSAA Infrastructure will not allow you to delete any Hierarchy that is utilized by another OFSAA rule (e.g., a Transfer Pricing Processing rule, an Allocation rule, etc). See Check Dependencies above.

Hierarchies Summary Grid

The following columns categorize each Dimension Member in the summary grid:

- Name
- Display Level
- Created By
- Creation Date
- Last Modification Date

<input type="checkbox"/> Name ▲	Display Level	Created By	Creation Date	Last Modification Date
<input type="checkbox"/> Standard Cost Center Hierarchy	1	PFTADMINIBRAMAN	30-NOV-09 20:47:56	09-DEC-09 11:40:32

Name

Displays the Hierarchy's Name. Performing a "mouse-over" on a Hierarchy's Name displays the Hierarchy's Description.

Display Level

Display Level is the default level at which a hierarchy is displayed by the application when you open it.

Created By

Created By displays the name of the user who created a Hierarchy. If a Hierarchy is saved as Read Only, only the user who created the rule, i.e., the owner, may modify the rule.

Creation Date

Displays the date and time at which a Hierarchy was created.

Last Modification Date

Displays the date and time at which a Hierarchy was last modified.

Navigation within the Detail Screen

When you Add, Edit, Copy, or View a Hierarchy, the Hierarchies Detail screen is displayed.

Hierarchies Detail Screen

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Audit Trail		User Comments	
System ID :211074			
Created By	PFTADMINBRAMAN	Creation Date	13-JAN-10 09:52:47
Last Modified By	PFTADMINBRAMAN	Last Modification Date	13-JAN-10 12:01:16

Hierarchy Functionality

See Overview of OFSAA Infrastructure for details on how Hierarchies are used in OFS Analytical Applications.

Dimension Container

For a new Hierarchy, select the dimension upon which you want to build a hierarchy. For an existing Hierarchy, you may not change the dimension.

Hierarchy Properties Container

Specify a Hierarchy Name and Description, select a Folder in which the Hierarchy is to be stored, and specify whether you want the Hierarchy to be "Read/Write" or "Read Only" (Access Type). Naming your Hierarchy is required before it can be saved. Default values for Folder and Access Type are stored in Application Preferences. The Hierarchy Properties container also stores values for Automatic Inheritance, Display Signage, Show Member Code, Initial Display Level, and Orphan Branch.

Hierarchy Properties			
Name *	New GL Hierarchy		
Description	Sample General Ledger Account hierarchy		
Folder	GUISEG	Access Type	<input type="radio"/> Read Only <input checked="" type="radio"/> Read/Write
Automatic Inheritance	<input type="radio"/> Yes <input checked="" type="radio"/> No	Display Signage	<input type="radio"/> Yes <input checked="" type="radio"/> No
Show Member Code	Only Name - No Code	Initial Display Level	3 - Level 3
Orphan Branch	<input checked="" type="radio"/> Yes <input type="radio"/> No		

Name and Description

Displays the hierarchy's name and description. Name is a required property; you cannot save a hierarchy until you supply a name.

Folder

Select the folder in which you want the hierarchy to be stored.

Automatic Inheritance

Not used in the current release.

Show Member Code

"Show Member Code" governs the default display behavior of a hierarchy. This code may be set to one of three different values:

- Code to Left of Name
- Code to Right of Name
- Only Name – No Code

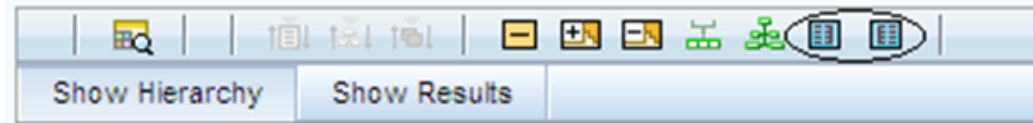
While viewing or editing a hierarchy, you may override whatever default behavior has been set by clicking on the "Show Code Values (Right)"



or on the "Show Code Values (Left)"



controls that are located on the title bar of the hierarchy display grid.



Orphan Branch

When you initially enter the Hierarchies Detail screen in Add mode (i.e., for a brand new hierarchy), Orphan Branch is set to Yes. When set to Yes, unassigned leaf members and node members are displayed within a special "Orphan" branch. This can be convenient because the user interface includes functionality that allows you to "cut and paste" members of the orphan branch into desired locations within your hierarchy. The Orphan Branch can also be convenient when you are maintaining an existing hierarchy because when it contains members, it provides a visual cue that dimension members have been defined that have yet to be assigned locations within a hierarchy. You may suppress the display of the Orphan Branch by setting Orphan Branch to No.

Access Type

You may set Access Type to Read-Only or Read/Write. When set to Read-Only, only the owner – the creator of a rule is its owner – may modify or delete the hierarchy.

Display Signage

Display signage is not used within any of the OFSAA engines, but is used within the Oracle Financial Services Profitability Analytics OBI application. Its purpose is to inform reporting applications on how to subtotal information on financial reports, most typically for income statement reporting. The default value for all new dimension members is "+".

Initial Display Level

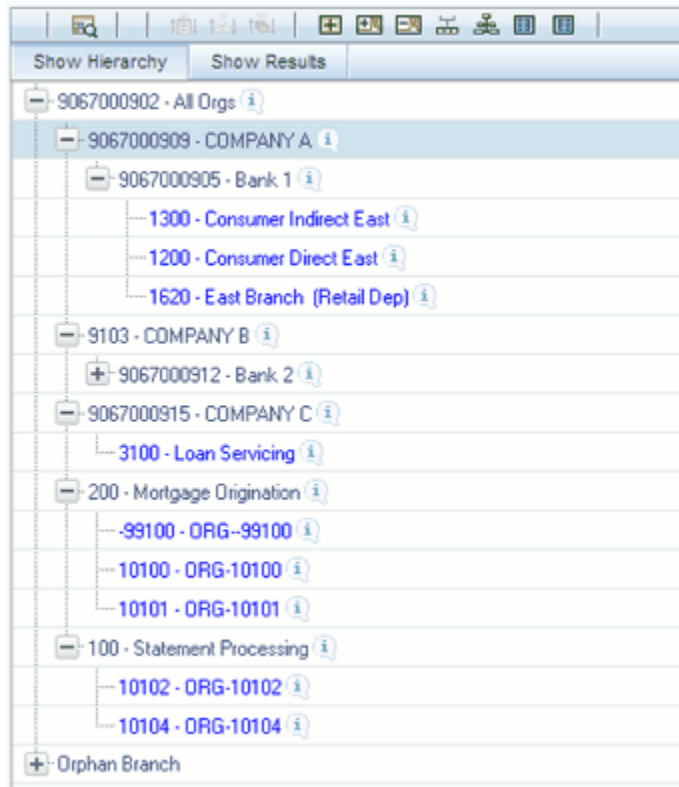
This setting controls the level at which a hierarchy is displayed when you initially enter the Hierarchies Detail screen. This setting is particularly useful when you are working with a hierarchy that has many levels. In a deep, many-leveled hierarchy, only one or two high level rollup points would be displayed if the hierarchy were displayed in its entirety.

Hierarchy Display Grid

The main body of the Hierarchies Detail screen displays a visual representation of your hierarchy. When building a hierarchy within a given dimension, you have access to

every dimension member defined for that dimension. For dimensions that support hierarchies, every dimension member has the property of either being a "leaf" member or a "rollup node" member. You construct your hierarchy by attaching leaf members to rollup node members and by attaching rollup node members to other rollup node members depending on how "deep" or multi-leveled you want your hierarchy to be.

Hierarchies may be either "balanced" or "unbalanced". In a balanced hierarchy, all leaf members reside at the same "level" or depth. The following example shows an unbalanced hierarchy in which you see leaf members (shown in blue) three levels beneath to "root" or top of the hierarchy within the Bank 1 branch, but in which you also see leaf members two levels beneath the root level in the Company C, Mortgage Origination, and Statement Processing branches.



Generally, there is no limit to the number of levels of depth you may build into a hierarchy for Standard Dimensions that support hierarchies. For Key Processing Dimensions, which always support hierarchies, you may construct hierarchies with up to 14 levels of depth. For details on depth limitations and configuring maximum depth levels for hierarchies, see *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide*.

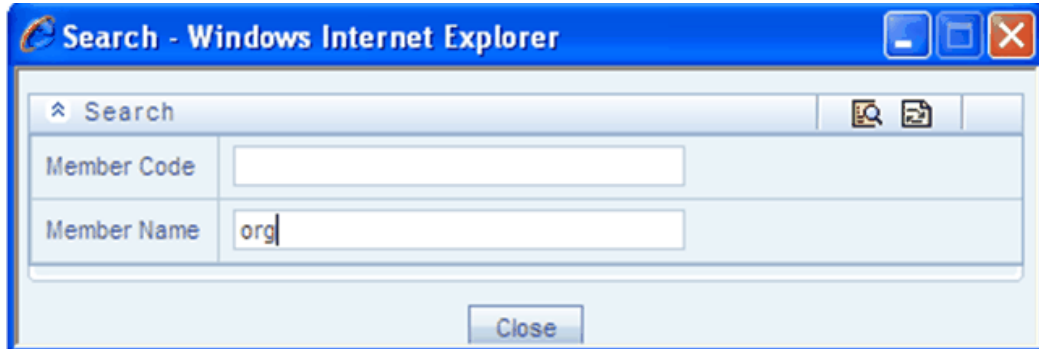
Controlling the Hierarchy Display

There are a number of controls on the title bar of the hierarchy that allow you to modify

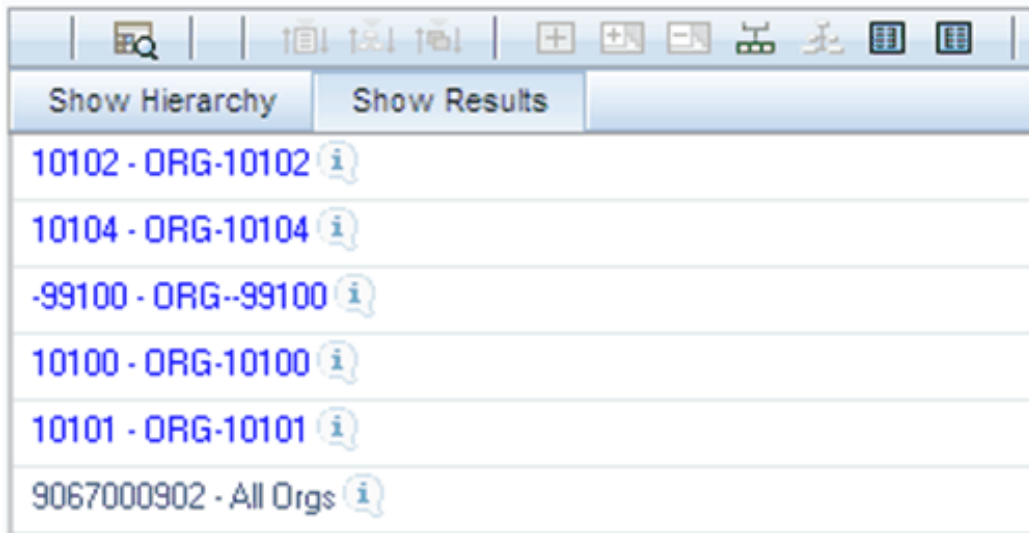
how the hierarchy is displayed.







Search

Clicking on the Search control invokes a pop-up dialog in which you can perform wildcard searches for dimension members by Member Code or by Member Name.



When you click on the Search button within the pop-up dialog, the dialog closes, your search is executed, and results are returned within the Hierarchy Display Grid under the heading of Show Results.



Show Hierarchy	Show Results
	10102 - ORG-10102 
	10104 - ORG-10104 
	-99100 - ORG--99100 
	10100 - ORG-10100 
	10101 - ORG-10101 
	9067000902 - All Orgs 

When viewing search results under the Show Results heading, you may locate a dimension member within the hierarchy by selecting it and clicking on the Focus control. After selecting a dimension member and clicking on Focus, the application responds by focusing on your selected member under the Show Hierarchy heading (that is, under the normal hierarchy display).

This method of searching for dimension members will only find assigned members, that is, members that are not found in the Orphans Branch.

Expand All / Collapse All

When you initially enter the Hierarchies Detail screen, clicking on this control expands every branch of your hierarchy to display its entire depth. Click on this control a second time to shrink the hierarchy display down to (1) the root node of the hierarchy plus (2) the "Orphans" branch.

- The Orphan branch is only displayed when a hierarchy's Orphan Branch property is set to Yes.
- For very large hierarchies, the Expand All / Collapse All control is disabled. You may define what constitutes a very large hierarchy. For more information, see *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide*.

Expand Branch

When you click on a node member and then click on Expand Branch, your selected rollup node is expanded to its maximum depth.

Collapse Branch

Select a dimension member and then click on the Collapse Branch control to shrink the display of any members beneath the dimension member you have chosen.

Focus and Unfocus

When you click on a node member and then click on the Focus control, only your selected node and its descendents are displayed. Clicking on Unfocus removes the focus that you established using the Focus control described above.

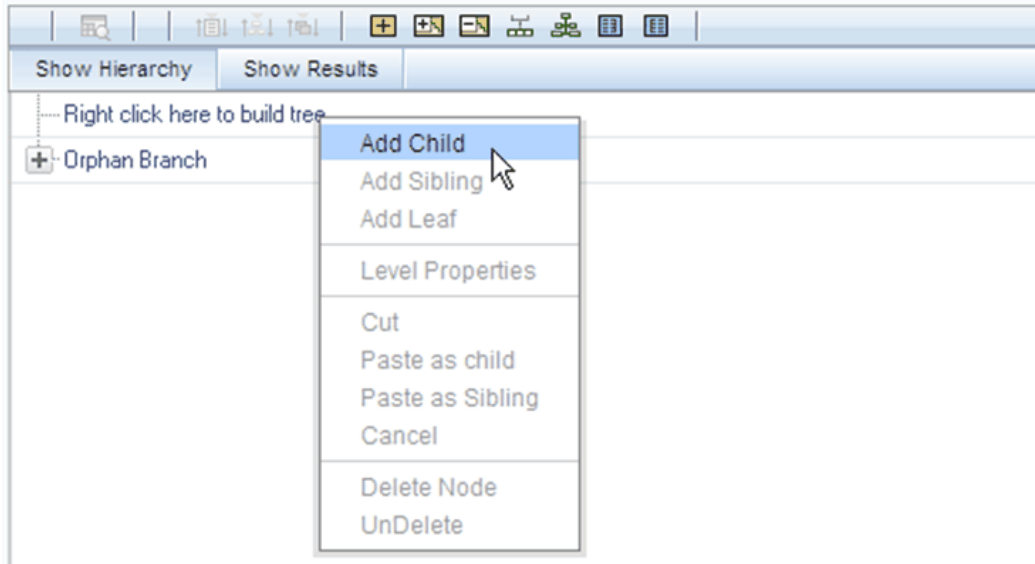
Show Code Values (Left) and (Right)

Click on Show Code Values (Left) to show code values to the left of each dimension member name. Click on Show Code Values (Right) to show code values to the right of each dimension member name. The default behavior for your hierarchy is controlled by the "Show Member Code" property discussed above.

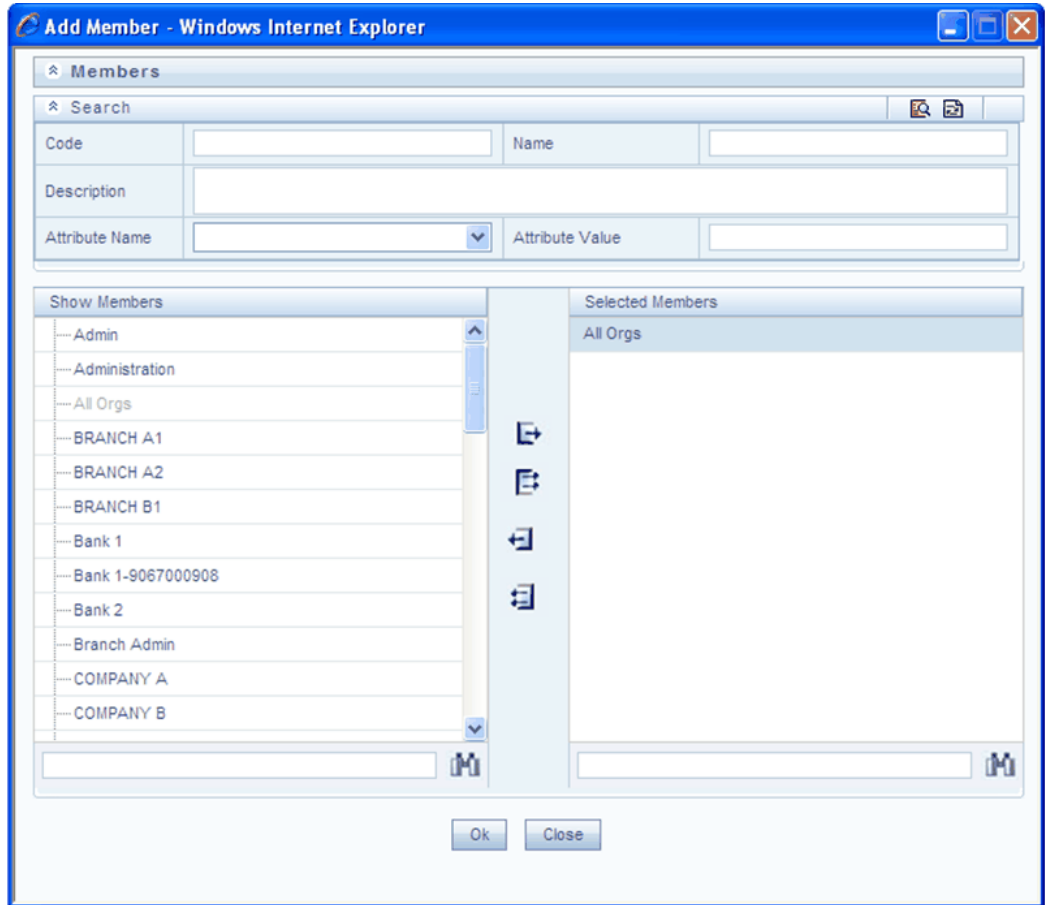
Adding Hierarchies

When creating a new hierarchy, you must initially provide a name and, optionally, a description. You must also select the Folder in which you want the hierarchy to be

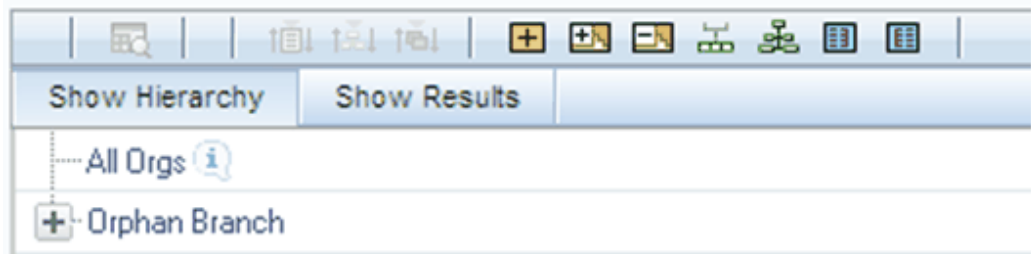
stored, the hierarchy's Read Only vs. Read/Write (Access Type) property and the other Hierarchy Properties described above. Default values for Folder and Access Type are stored in Application Preferences.



To begin the process of building a new hierarchy, right mouse click at the top of the hierarchy (see example above) to invoke a pop-up dialog in which you may select dimension members. Every hierarchy must begin with a top level rollup node. Since you cannot have a leaf member as a top level rollup node, your only choice at this point is Add Child. Clicking on Add Child invokes pop-up dialog in which you may select a rollup node.



Within the Add Member pop-up dialog, use the shuttle box controls to select the member from the left hand side that you want to serve as the root member for your hierarchy. In the example above, the All Orgs dimension member has been selected to serve as the root node for the hierarchy. Note that in this context, the Show Members column only lists rollup members (i.e., a leaf member may not serve as the root of a hierarchy). When you click OK, the Add Member dialog closes and the original hierarchy display is modified to show your selected root member.

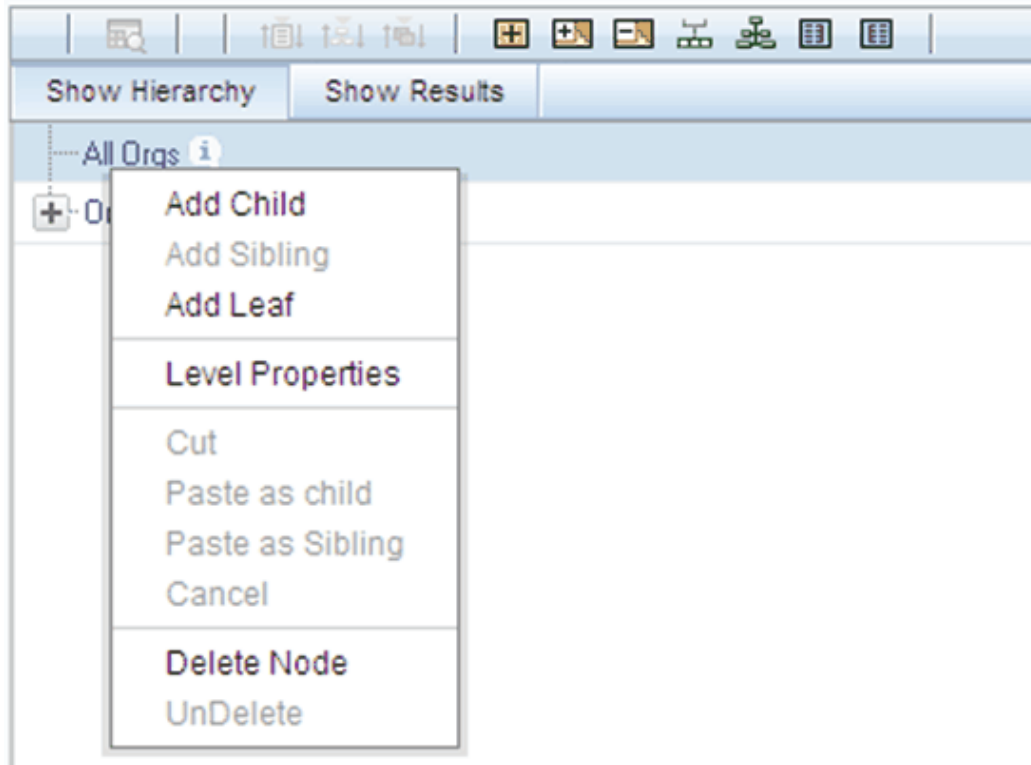


At this point, the process of adding additional dimension members (leaves and rollup nodes) is the same for existing hierarchies as it is for new hierarchies.

Editing Hierarchies

Inserting New Members into a Rollup Node

Select a rollup node member and then right mouse click. This action will display a number of choices including Add Child, Add Sibling, and Add leaf. The following example continues from the above description of creating a new organizational unit hierarchy.



In this current example, we have selected a rollup node member which serves as the root member of the hierarchy. Because OFSAA Infrastructure does not support hierarchies with multiple "tops", you may not add a sibling member (i.e., a member to be stored at the root level of the hierarchy) so the Add Sibling option is disabled.

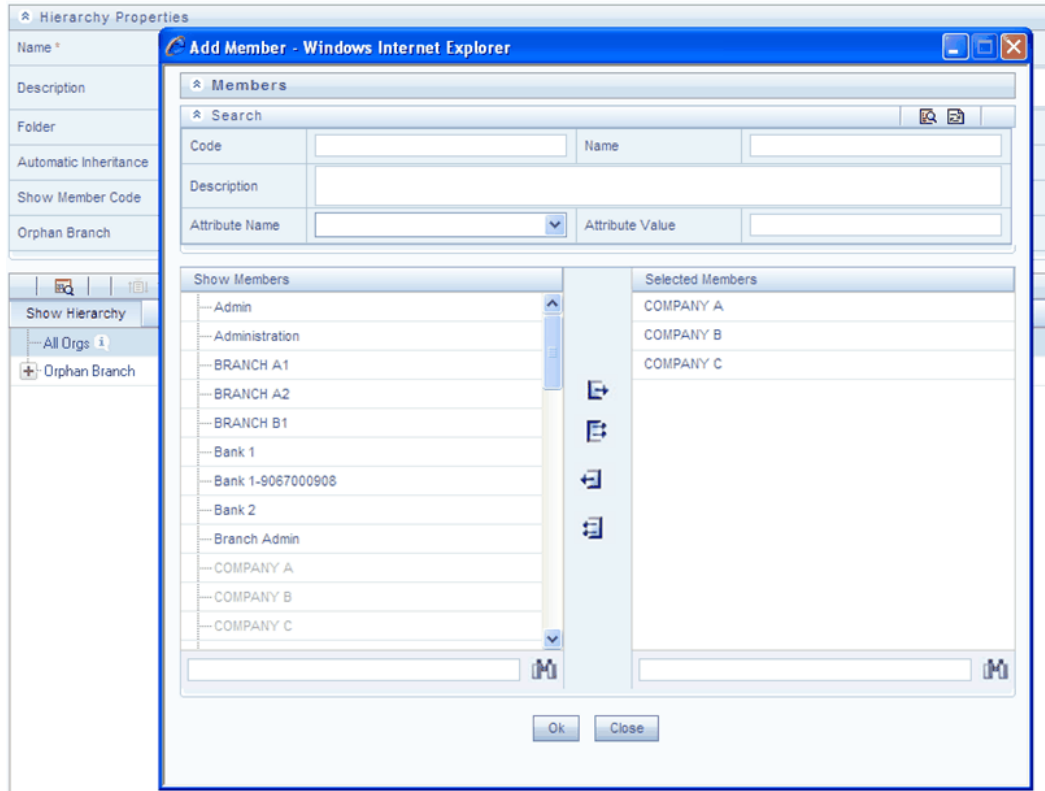
Whenever you select the "Add Child" or "Add Sibling" or "Add Leaf" option, the Add Member dialog is displayed.

Add Child

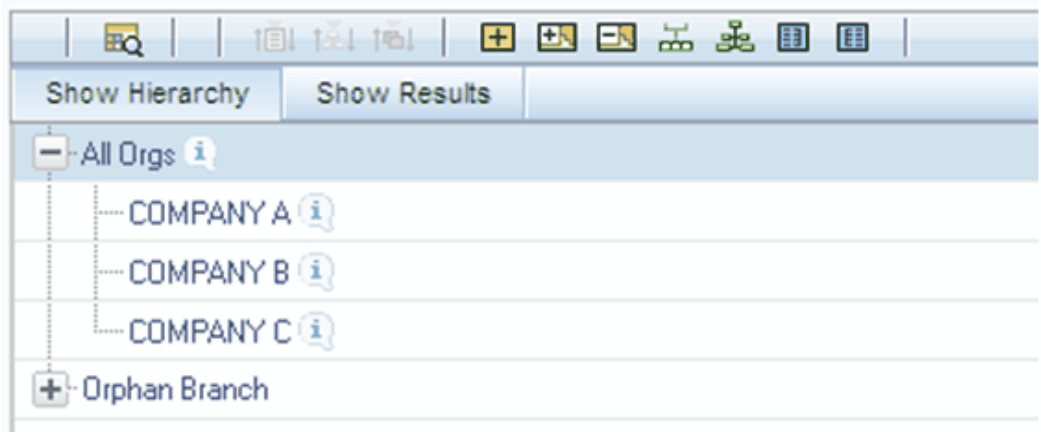
For the "Add Child" option, the Add Member dialog presents all dimension members that have not already been assigned elsewhere (i.e., all members that are not found in the orphan branch). The value or values you select will be placed in the hierarchy one

level beneath the node you originally selected.

In the following example, Company A, Company B, and Company C have been selected to act as the children of the All Orgs root node.

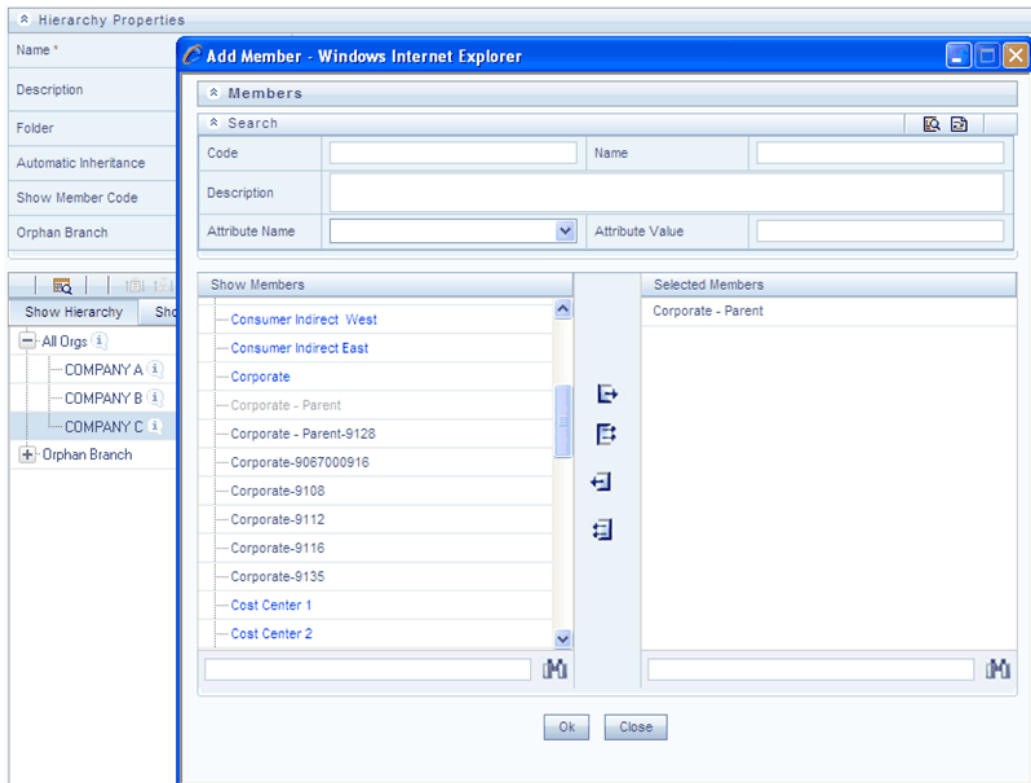


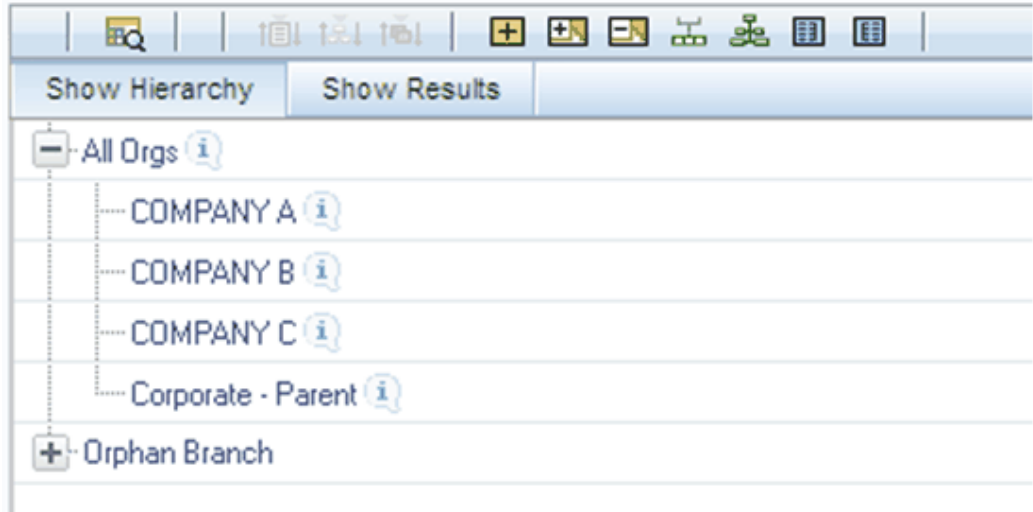
When you click OK on the Add Member dialog, the dialog box closes and the underlying the Hierarchy Display is updated to reflect your choices.



Add Sibling

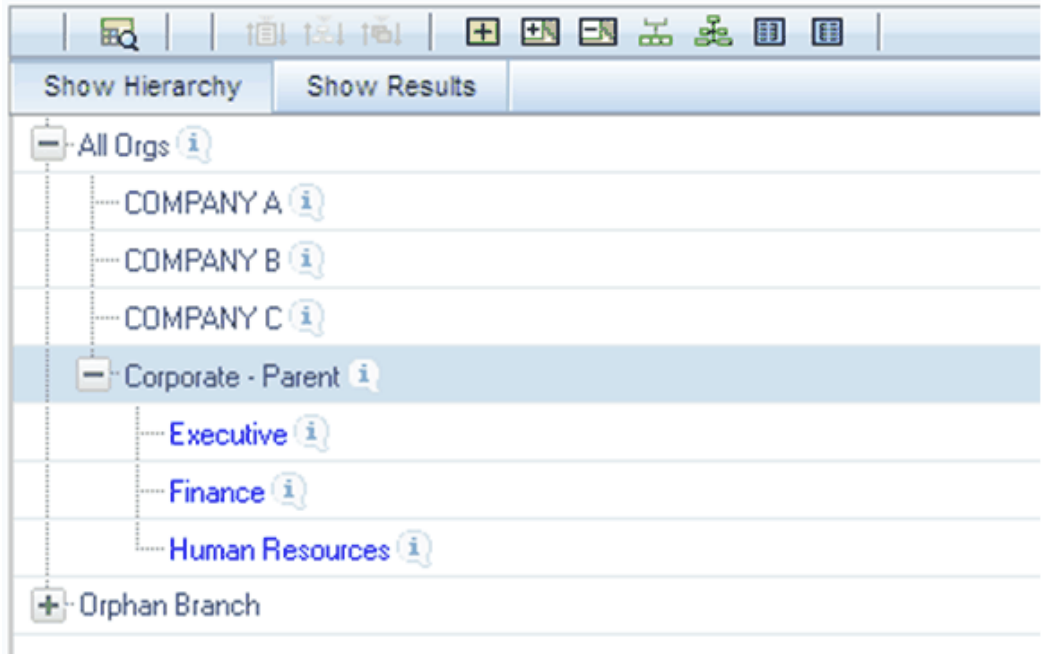
For the "Add Sibling" option, the Add Member dialog presents all dimension members that have not already been assigned elsewhere (i.e., all members that are not found in the orphan branch). The value or values you select will be placed in the hierarchy at the same level as the node you originally selected. In the following example, "Corporate – Parent" has been selected to be a sibling to Company C, i.e., to be inserted at the same level within the hierarchy as Company C.



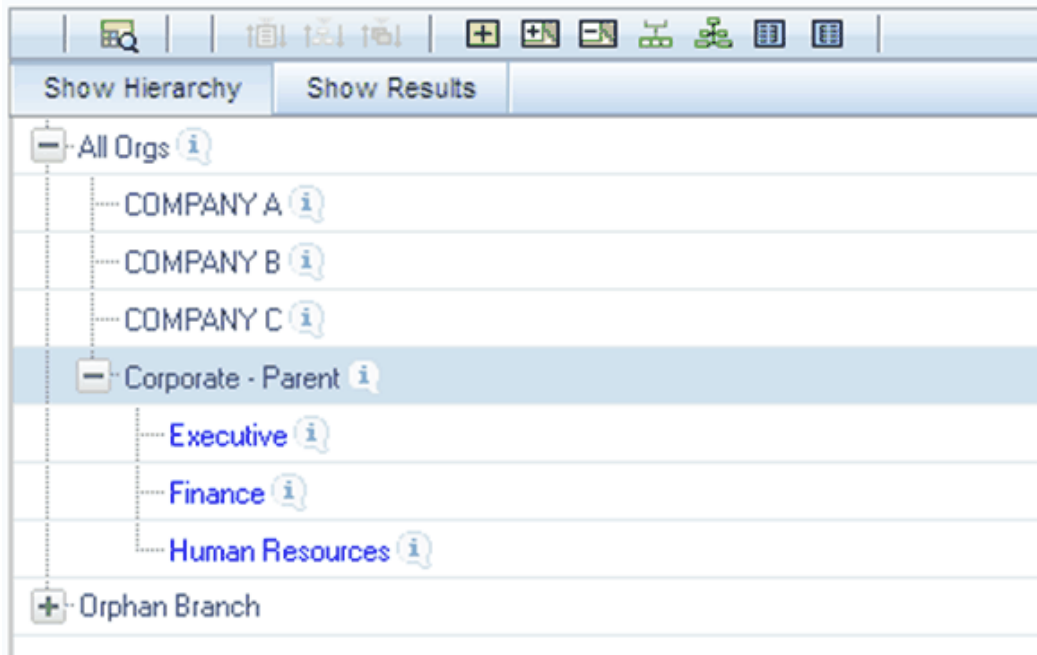


Add Leaf

For the "Add Leaf" option, the Add Member dialog presents all leaf members that have not already been assigned elsewhere. The leaf value or values you select will be placed in the hierarchy one level beneath the node you originally selected.

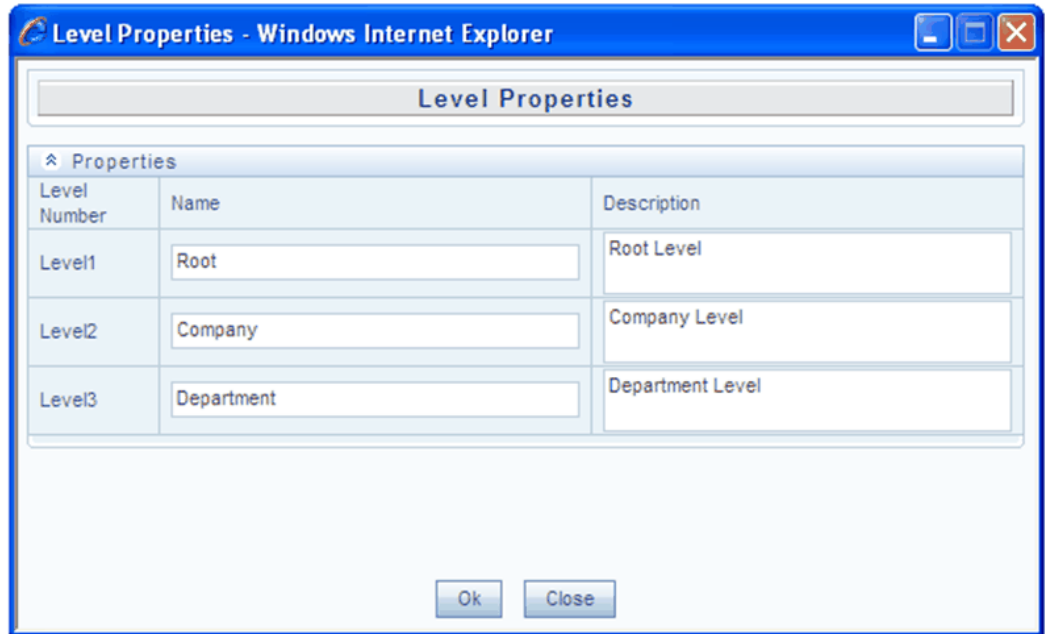


In the example above, Executive, Finance, and Human Resources have been selected to be children of the Corporate – Parent rollup node.



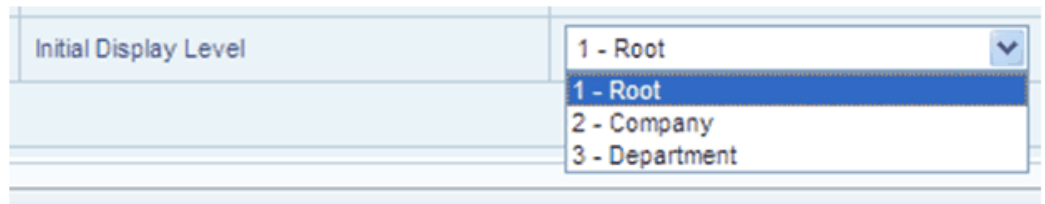
Level Properties

Selecting the Level Properties option invokes the Level Properties dialog. Within this dialog, you may provide names and descriptions for each of the levels within your hierarchy.



The Level Properties dialog will display as many levels as you have currently built out. In the above example, names and descriptions are being added at a time when only 3 levels have been built within the underlying hierarchy. If a fourth level is built into the hierarchy, you could return to Level Properties to add a name and description to level 4.

Assigning names or descriptions to levels is completely optional. Within the Hierarchy Properties Container, the drop down list for "Initial Display Level" will reflect your level name choices. Your choices may also be utilized within downstream reporting applications, but level names and descriptions are otherwise not utilized within OFSAA.



Cut

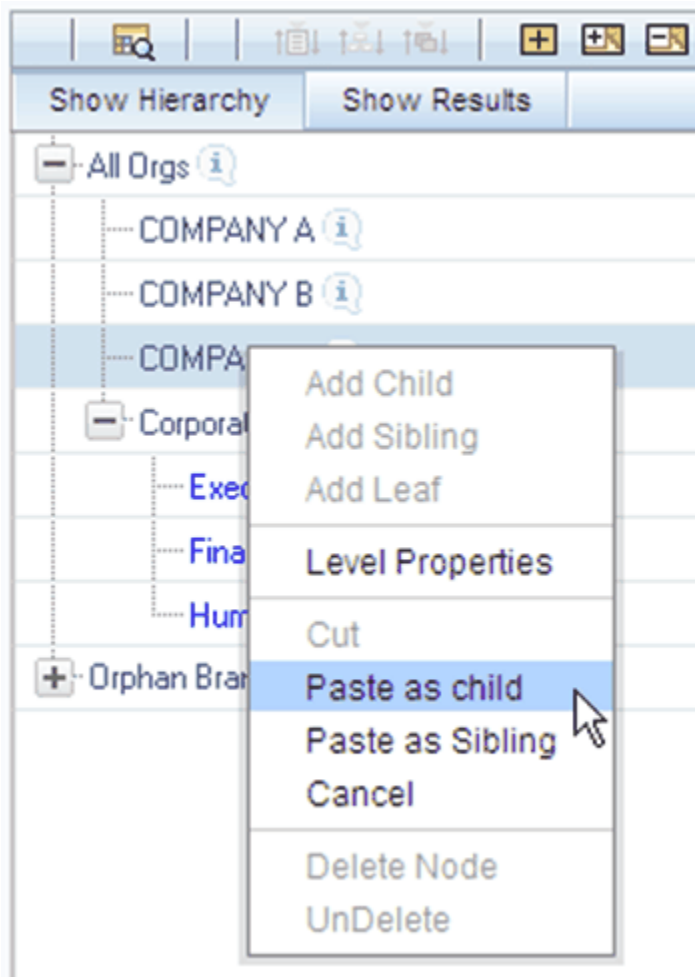
If you wish to move a dimension member, click on a leaf member or a rollup member and select Cut. You may wish to move a dimension member because it is in the wrong location within the hierarchy. You may also wish to Cut a dimension member from the Orphan Branch in order to subsequently paste it within the body of your hierarchy. Any Cut operation must be followed by a Paste as Child, Paste as Sibling, or Cancel operation. Until you have executed a Cut operation, Paste as Child, Paste as Sibling, and Cancel are disabled; conversely, once you have executed a Cut operation, Paste as

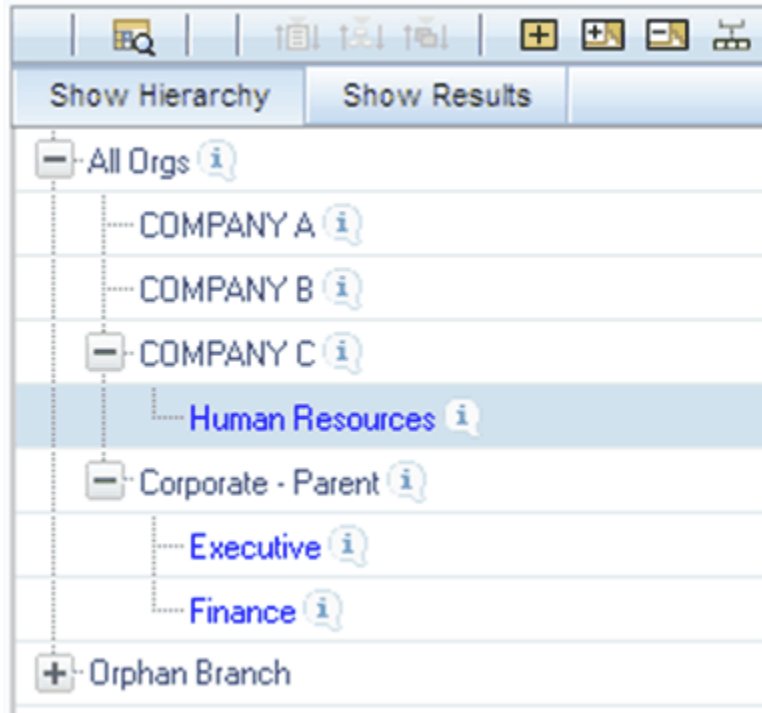
Child, Paste as Sibling, and Cancel are enabled.

Paste as Child or Paste as Sibling

After performing a Cut operation, you may perform a Paste as Child or Paste as Sibling operation. If you have Cut a dimension member and then subsequently selected leaf member, the Paste as Child option is disabled, i.e., no dimension member may be a child of a leaf member. Leaf members, by definition, can have no children. Since OFSAA supports unbalanced hierarchies, any dimension member, regardless of whether it is a leaf member or a rollup member, may be pasted as a sibling to any other dimension member.

In the following example, Human Resources has been Cut from the "Corporate – Parent" rollup node so that it may be pasted as a child into Company C.



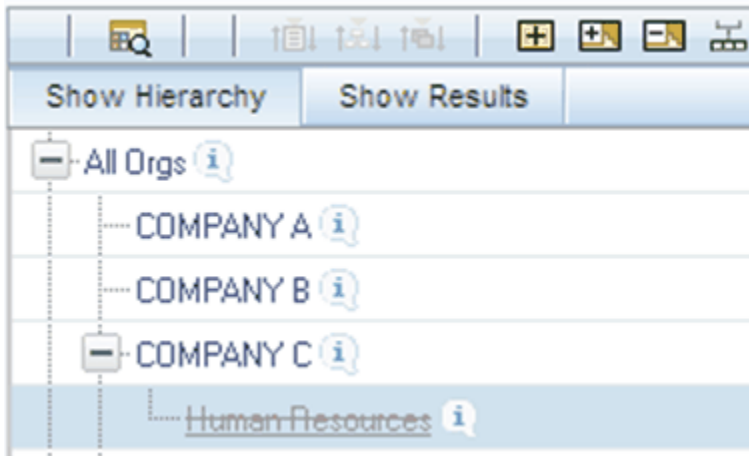
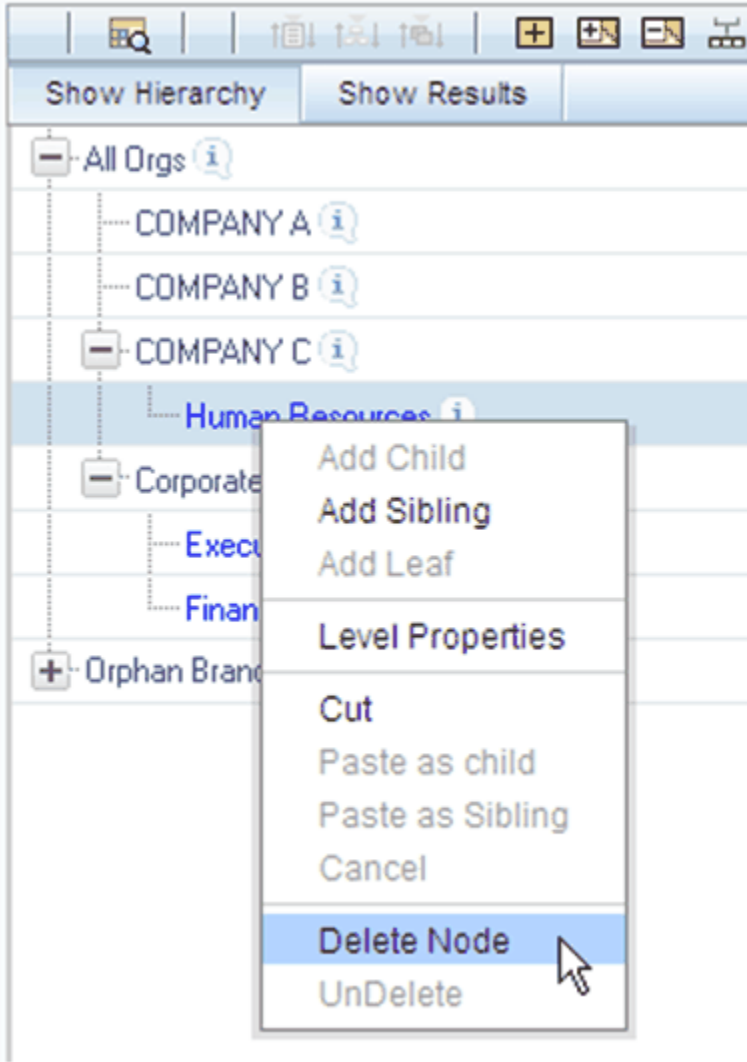


Cancel

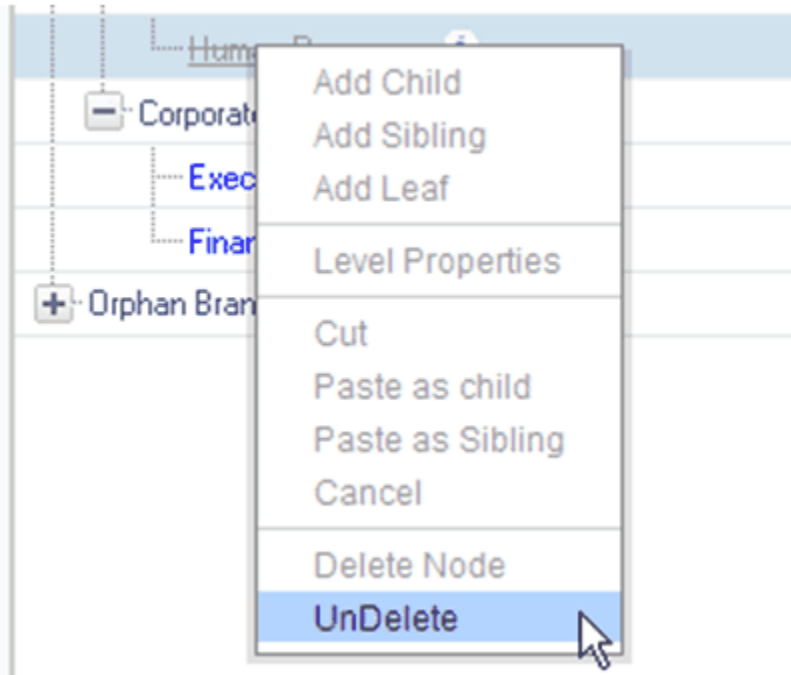
The Cancel option is only enabled after you have executed a Cut operation. Once you have Cut a dimension member, you may not perform any other operation except for Paste as Child, Paste as Sibling, or Cancel (you may, however, still invoke Level Properties; see discussion above on Level Properties). Utilizing the Cancel option allows you to select and subsequently Cut another dimension member (i.e., after you have performed a Cancel operation, Paste as Child, Paste as Sibling, and Cancel are disabled).

Delete Node & UnDelete

To move a dimension member back into the Orphans Branch, click on a member and then select the Delete option. Once you have performed a Delete operation, the member selected for deletion appears with a strikethrough font. The following example shows the deletion of the Human Resources dimension member.

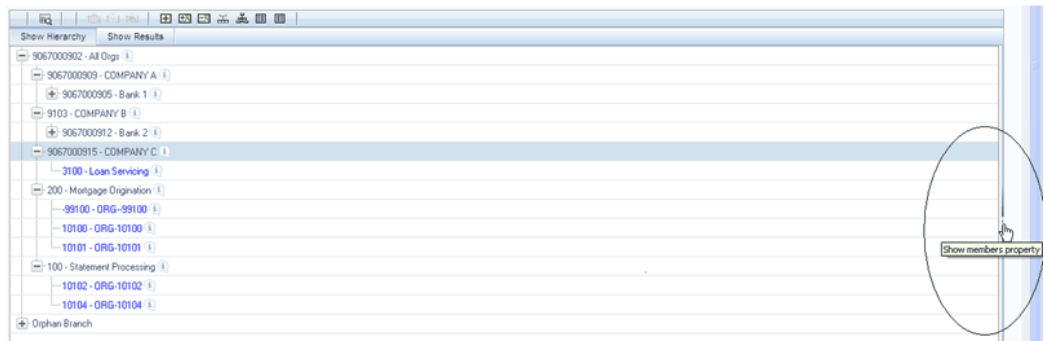


Note that after having deleted the Human Resources member, it may be "restored" to its original condition by executing an UnDelete operation.



Member Properties Display

Click on the separator bar at the extreme right hand side of the Hierarchy Display Grid to invoke the Member Property display.



The Member Property display shows all of the properties of the currently selected dimension member (the member selected within the hierarchy). While the Member Property display is open, you may use your Up arrow, Down arrow, Left arrow, or Right arrow keys to move from dimension member to dimension member.

9067000902 - All Orgs

Show Hierarchy | Show Results

- 9067000909 - COMPANY A
 - 9067000905 - Bank 1
- 9103 - COMPANY B
 - 9067000912 - Bank 2
- 9067000915 - COMPANY C
 - 3100 - Loan Servicing
 - 200 - Mortgage Origination
 - 99100 - ORG-99100
 - 10100 - ORG-10100
 - 10101 - ORG-10101
 - 100 - Statement Processing
 - 10102 - ORG-10102
 - 10104 - ORG-10104
- Orphan Branch

Member Properties

Code	9067000915
Name	COMPANY C
Description	COMPANY C
Enabled	<input checked="" type="radio"/> Yes <input type="radio"/> No
Is Leaf	<input type="radio"/> Yes <input checked="" type="radio"/> No
Created By	-1
Creation Date	05-NOV-09 14:42:34
Last Modified By	-1
Last Modification Date	05-NOV-09 14:42:34

Member Attributes

Attribute	Value
ORG UNIT CODE	9067000915

OFSAA Filters

Overview of OFSAA Filters

This chapter describes the creation and maintenance of OFSAA Filters. Specifically, this chapter will cover:

- Filters Summary & Detail Screens
- Navigation within the Filters Summary Screen
- Navigation within the Filters Detail Screen

See Chapter 2: Overview of OFSAA Infrastructure for details on how Filters are used in OFS Analytical Applications.

Summary & Detail Screens

Upon initially navigating to Master Maintenance > Filters, a summary screen is displayed showing a set of Filters. Using search criteria, you can control the set of Filter rules that are displayed. When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Filters summary screen, the filters stored within your current default Folder are presented in a summary grid. The Filters summary screen has two containers: Search and Filters.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences. You may select a different Folder or you may remove the

Folder constraint entirely by selecting the "blank" Folder, i.e., no Folder. You may also search by Filter Name or by Filter Type. Filter Types, shown in a drop down list box, include:

- Data Element Filter
- Hierarchy Filter
- Group Filter

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Restores the default Folder, removes any Filter Name or Filter Type constraint you may have specified, and refreshes the screen.

The screenshot shows a web interface titled "Filters Summary". At the top, there is a search bar with a "Search" button. Below the search bar, there are two input fields: "Folder Name" with a dropdown menu set to "GUISEG", and "Filter Name" with an empty text box. Below these is a "Type" dropdown menu. The main part of the interface is a table with the following columns: Name, Type, Modification Date, and Modified by. The table contains 20 rows of filter rules, each with a checkbox in the first column.

<input type="checkbox"/>	Name	Type	Modification Date	Modified by
<input type="checkbox"/>	abcprativis	Data Element	27-NOV-09 16:42:59	PFTUSER
<input type="checkbox"/>	Allocations	Data Element	16-NOV-09 18:38:29	FTPUSER
<input type="checkbox"/>	Allocations_LS	Data Element	26-NOV-09 11:42:40	PFTUSER
<input type="checkbox"/>	Allocations_M	Data Element	23-NOV-09 12:35:44	PFTUSER
<input type="checkbox"/>	Annuity Matched Spread	Data Element	12-NOV-09 23:27:19	PFTUSER
<input type="checkbox"/>	Chandra Special	Data Element	18-NOV-09 15:29:30	FTPUSER
<input type="checkbox"/>	CONSOLID_CD_100x	Data Element	26-NOV-09 11:41:19	PFTUSER
<input type="checkbox"/>	Data Portfolio	Data Element	02-DEC-09 13:55:22	PFTUSER
<input type="checkbox"/>	fg	Data Element	04-DEC-09 17:57:03	PFTUSER
<input type="checkbox"/>	GL_101301_TFILT	Hierarchy	09-NOV-09 17:03:24	PFTUSER
<input type="checkbox"/>	Hier filter	Hierarchy	23-NOV-09 15:03:12	GAUSER
<input type="checkbox"/>	Investments - Matched Spread	Data Element	12-NOV-09 23:08:31	PFTUSER
<input type="checkbox"/>	Investments - Matched Spread1	Data Element	27-NOV-09 14:42:20	GAUSER
<input type="checkbox"/>	Lookup3	Data Element	18-DEC-09 10:33:28	PFTUSER
<input type="checkbox"/>	lookup34grp	Group	18-DEC-09 10:35:03	PFTUSER
<input type="checkbox"/>	lookup4	Data Element	18-DEC-09 10:34:07	PFTUSER
<input type="checkbox"/>	Matched Spread	Group	12-NOV-09 23:23:12	PFTUSER

Filters Container

The Filter container presents a grid containing all of the Filter rules that meet your search criteria. The Filter summary grid offers several controls that allow you to perform different functions when a Filter rule is selected.

To select a Filter rule, click on a check box in the first column of the grid. More than one Filter can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the Filter.

You may select or deselect all of the Filters in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add

Clicking on the Add control begins the process of building a new Filter. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of a Filter on a read-only basis. The View control is only enabled when a single Filter has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Filter. The Edit control is only enabled when a single Filter has been selected.

Copy

Selecting a single row out of the grid enables the Copy control. Clicking on the Copy control allows you to create a copy of an existing Filter. The Copy control is only enabled when a single Filter has been selected.

Check Dependencies

To generate a report on the OFSAA rules that utilize a selected Filter, select a single Filter and click on the Check Dependencies control. The Check Dependencies control is only enabled when a single Filter has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Filter(s) you have selected. OFSAAI will not allow you to delete Filters which have any dependencies (see Check Dependencies above).

Filters Summary Grid

The following columns categorize each Filter in the summary grid:

- Name

- Type
- Modification Date
- Modified By

Name

Displays the Filter's short name. Performing a "mouse-over" on a Filter Name displays the Filter's description.

Type

Displays the Filter's type: Data Element, Hierarchy, or Group.

Modification Date

Displays the date and time at which a Filter was last modified.

Modified By

Displays the name of the user who last modified a Filter.

Navigation within the Detail Screen

When you Add, Edit, Copy, or View a Filter, the Filter Detail Screen is displayed.

In addition to Name, Description, Folder, and Access Type, the definition of a new Filter begins with declaring a "Filter Type". Supported Filter Types include Data Element, Hierarchy, and Group.

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Note: See Chapter 2: Overview of OFSAA Infrastructure for details on how Filters are used in OFS Analytical Applications.

Filter Type Selection Container

Select a filter type from the Filter Type drop down list box.

Data Element

A Data Element Filter is a stored rule that expresses a set of constraints. For example:

- Balances between 10,000 and 20,000
- Accounts opened in the current month
- Loans with amortization terms greater than 20 years

Data Element Filters can access most instrument columns and most columns in the Management Ledger. Data Element Filters are used within other OFSAA rule types (e.g., Allocation rules, Transfer Pricing rules, Asset | Liability Management rules, etc).

Hierarchy

Hierarchy Filters allow you to utilize rollup nodes within a Hierarchy to help you exclude (filter out) or include data within an OFSAA rule. For example, you might want to process data for a specific set of divisions or lines of business where you have a Hierarchy rule that expresses those divisions or lines of business as rollup nodes. A Hierarchy Filter could be constructed to "enable" the Commercial and Retail lines of business while NOT enabling the Wealth Management line of business. Each of these lines of business might include a handful or even thousands of cost centers. When incorporated into an OFSAA processing rule, this Hierarchy Filter would include every cost center in the Commercial and Retail lines of business.

Group Filters

Group Filters may be used to combine multiple Data Element Filters with a logical "AND" . For example, if Data Element Filter #1 filtered on mortgage balances greater than 100,000 and Data Element Filter #2 filtered on current mortgage interest rates greater than 6%, you could construct a Group Filter to utilize both Data Filters. In this case, the resulting Group Filter would constrain your data selection to mortgage balances greater than 100,000 AND current mortgage interest rates greater than 6%.

The remainder of this chapter discusses creation and maintenance of each type of filter.

Data Element Filters

Data Element Selection Container

In this container, specify the columns that you want to include in your Data Filter and, for each column you choose, a Filter Method.

The screenshot shows a web-based configuration interface for a Data Filter. It consists of several stacked sections:

- Filter Type Selection:** A dropdown menu is set to "Data Element".
- Data Element Selection:** A dropdown menu is empty, and a "Filter Method" dropdown is set to "Specific Values".
- Specific Values:** Radio buttons for "Include Values" (selected) and "Exclude Values".
- Filter Conditions:** A section with a "Conditions" label and some icons.

Data Element Selection

To select the columns you want to include in your Data Filter, click on the ellipses to invoke a Data Element Selection pop up window.

The screenshot shows a pop-up window titled "Data Element Selection - Windows Internet Explorer". The window contains the following elements:

- Select:** A dropdown menu for "Entity Name" is set to "CASA".
- Data Element Values:** A list of columns with checkboxes. The "Adjustable Type Code" is highlighted. A vertical toolbar with icons is positioned between the list and the "Selected Members" list.
- Selected Members:** An empty list on the right side of the window.
- Buttons:** "Ok" and "Close" buttons at the bottom.

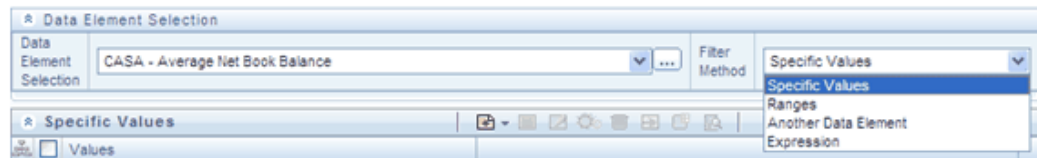
Select an entity (a database table) and then select the columns you wish to include in your Data Filter.

Filter Method

For each column you wish to include in your Data Filter definition, you must specify a

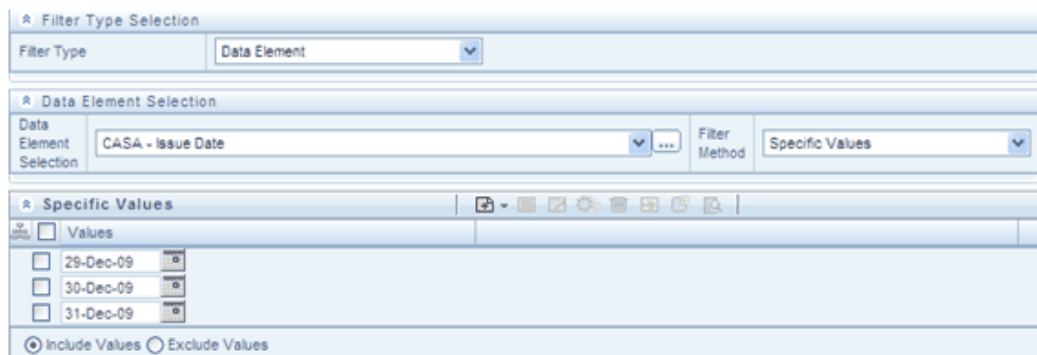
Filter Method:

- Specific Values
- Ranges
- Another Data Element
- Expression



Specific Values

Specific Values are used to match a selected database column to a specific value or values that you provide. In this example, qualifying records include any CASA [Checking and Savings Accounts] account issued in the last 3 days of 2009.



You may add additional values by clicking on the Add control, and you may reduce the number of Specific Values by clicking on the check box to the left of a value and then clicking on the Delete control.

- When comparing Specific Values for a character type column, you must provide Specific Values that are character strings.
- When comparing Specific Values for a date type column, you must provide Specific Values that are dates (the application displays a Calendar control).
- When comparing Specific Values for a numeric column, you must provide Specific Values that are numbers.

Note: You may either include or exclude Specific Values.

Ranges

Ranges are used to match a selected database column to a range of values or to ranges of values that you provide. In the following example, qualifying records include any CASA account having an Average Net Book Balance between 0 and 1,000 or between 10,000 and 20,000.

You may add additional values by clicking on the Add control, and you may reduce the number of Ranges by clicking on the check box to the left of a value and then clicking on the Delete control.

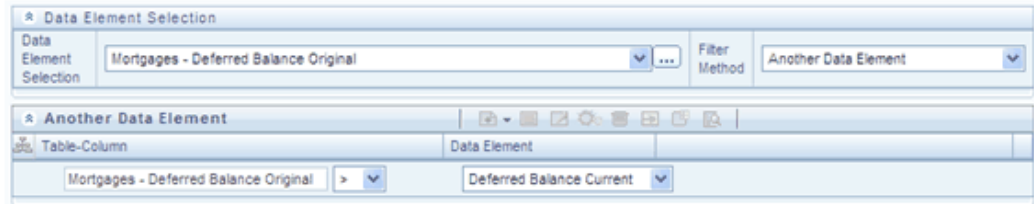
- When comparing Ranges for a character type column, you must provide Specific Values that are character strings.
- When comparing Ranges for a date type column, you must provide Specific Values that are dates (the application displays a Calendar control).
- When comparing Ranges for a numeric column, you must provide Specific Values that are numbers.
 - You may use any of the following operators when choosing the Another Data Element Filter Method : = , <> (meaning " not equal to ") , < , > , <= , or >=
 - You may either include or exclude Range values.

The screenshot shows a software interface for defining filter ranges. At the top, a window titled "Data Element Selection" has a dropdown menu for "Data Element Selection" set to "CASA - Average Net Book Balance" and a dropdown for "Filter Method" set to "Ranges". Below this is a section titled "Ranges" with a toolbar containing icons for adding, deleting, and editing ranges. Underneath, there are two rows of range definitions. Each row starts with a checkbox, followed by a dropdown menu for the operator (set to ">="), a text input field for the lower bound, another dropdown menu for the operator (set to "<="), and a text input field for the upper bound. The first row has values 0.00 and 1000.00. The second row has values 10000.00 and 20000.00. At the bottom of the "Ranges" section, there are two radio buttons: "Include Values" (which is selected) and "Exclude Values".

Another Data Element

Another Data Element is used to match a selected database column to another database column. In the example that follows, qualifying records include any Mortgage account having an Original Deferred Balance greater than the Current Deferred Balance.

Note: You may use any of the following operators when choosing the Another Data Element Filter Method: = , <> (meaning "not equal to"), < , > , <= , or >=

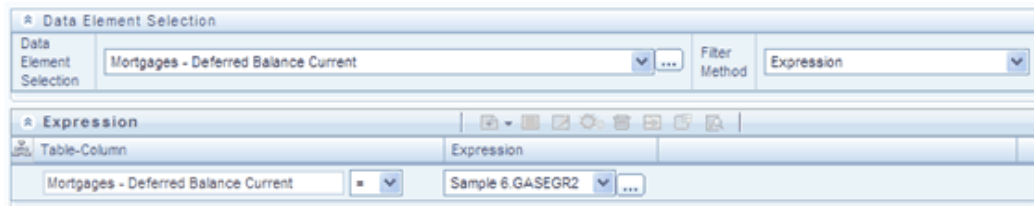


When constructing an Another Data Element Filter Method, you may only compare a column to other columns that you have already selected (the Data Element drop down list box will only contain columns that you have already selected). In the example above, you must have picked both Deferred Original Balances and Deferred Current Balances.

Note: Only columns that match the data type of your Data Element selection are offered in the Data Element drop down list box.

Expression

Expression is used to match a selected database column to the results of an OFSAA Expression rule (see Chapter 9: OFSAA Expressions).



The above example compares Mortgages.Deferred Current Balances to the results of the Expression rule named Sample 6 (where the Expression is stored in the GASEGR2 Folder). Clicking on the ellipses invokes a read-only view of the underlying Expression. The Sample 6 Expression is a function that calculates Mortgages.Current Par Balance minus Mortgages.Current Book Balance.

Note: You may use any of the following operators when choosing the Expression Filter Method: =, <> (meaning "not equal to"), <, >, <=, or >=

Building Filter Conditions

Each time you complete a Filter Method specification, you must Add it to the Filter Conditions container. The reason you must do so is because you may compare the same columns multiple times. For example, you may compare Deferred Current Balances to a Specific Value and to Another Data Element and to a Range of Data Elements and to an Expression all in the same Data Element Filter rule.

Filter Conditions Container

The screenshot shows the 'Filter Conditions Container' interface. It consists of three main sections:

- Data Element Selection:** A dropdown menu for 'Data Element Selection' is set to 'Mortgages - Deferred Balance Original'. To its right, a 'Filter Method' dropdown is set to 'Another Data Element'.
- Another Data Element:** A table with two columns: 'Table-Column' and 'Data Element'. The 'Table-Column' is 'Mortgages - Deferred Balance Original' and the 'Data Element' is 'Deferred Balance Current'. Below the table is an 'Add' button.
- Filter Conditions:** A section with a 'Conditions' table that is currently empty.

Once you have created one or more Filter Condition records, you may click on a record in the Filter Conditions container in order to select it. Once you have selected a Filter Conditions record, you may modify your original definition of that Filter Condition and then Update it.

This screenshot shows the 'Another Data Element' section with the 'Data Element' dropdown changed to 'Current Net Book Balance'. An 'Update' button is visible below the table. The 'Filter Conditions' section now contains one record in the 'Conditions' table: 'Another Data Element : Mortgages - Deferred Balance Original >Deferred Balance Current'.

After you click on Update, your Filter Condition is updated.

This screenshot shows the 'Another Data Element' section with the 'Data Element' dropdown set to 'Current Net Book Balance'. The 'Filter Conditions' section now contains one record in the 'Conditions' table: 'Another Data Element : Mortgages - Deferred Balance Original =Current Net Book Balance'.

Delete

You may delete individual Filter Conditions records by clicking on the Delete control .

View SQL

Click on the View the SQL control to generate a window displaying the SQL equivalent of your Data Element Filter. You may generally copy and paste this SQL into queries that you write. View SQL, however, will not accurately reflect Expression Filter Methods.

Hierarchy Filters

Hierarchy Selection Container

After selecting the Hierarchy Filter Type, select a dimension and a hierarchy from the Hierarchy Selection container that will serve as the basis for your Hierarchy Filter rule.

The screenshot shows two panels. The top panel, titled "Filter Type Selection", has a "Filter Type" dropdown menu set to "Hierarchy". The bottom panel, titled "Hierarchy Selection", has a "Dimension" dropdown menu set to "COUNTRY" and a "Hierarchy" dropdown menu set to "Sample Country Hierarchy".

Once you have selected a dimension and a hierarchy in the Hierarchy Selection container, a representation of the hierarchy you selected is displayed.

The screenshot shows a tree view of a hierarchy. The root node is "All Countries" (unchecked). It has three children: "Americas" (checked), "APAC" (checked), and "EMEA" (unchecked). "Americas" has a "More" link. "APAC" has a "More" link. "EMEA" has four children: "Austria" (checked), "Bahrain" (unchecked), "Belgium" (unchecked), and "Bulgaria" (unchecked). There is also a "More" link under "EMEA". At the bottom, there is an "Orphan Branch" (unchecked). The interface includes a toolbar with icons for search, zoom, and other actions, and a "Show Hierarchy" button.

Select any combination of rollup points and leaf (last descendent child) values. In the example above, the Americas and APAC rollup points have been selected; and the leaf value for Austria has been selected. This Hierarchy Filter includes any country that rolls up to either the Americas or to APAC; it also includes Austria. This Hierarchy Filter excludes all countries that roll up to EMEA except for Austria.

View SQL

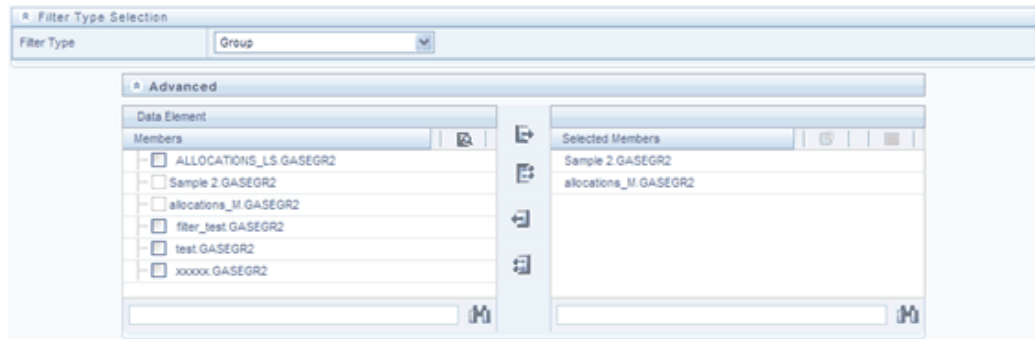
Once you have selected one or more leaves and/or rollup nodes, click on the View the SQL control to generate a window that displays the SQL equivalent of your Hierarchy

Filter.

Group Filters

Advanced Container

After selecting the Group Filter Type, you may use the Select, De-Select, Select All, and De-Select All controls to choose one or more Data Element Filters ("Selected Members") that will be combined to define your Group Filter.



OFSAA Expressions

Expressions

This chapter describes the creation and maintenance of OFSAA Expressions. Specifically, this chapter will cover:

- Expressions Summary & Detail Screens
- Navigation within the Expressions Summary Screen
- Navigation within the Expressions Detail Screen

See Chapter 2: Overview of OFSAA Infrastructure for details on how Expressions are used in OFS Analytical Applications.

Summary & Detail Screens

Upon initially navigating to Master Maintenance > Expressions, a summary screen is displayed showing a set of Expressions. Using search criteria, you can control the set of Expression rules that are displayed. When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Expressions summary screen, the expressions stored within your current default Folder are presented in a summary grid. The Expressions summary screen has two containers: Search and Expressions.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences. You may select a different Folder or you may remove the

Folder constraint entirely by selecting the "blank" Folder, i.e., no Folder. You may also search by Expression Name or by Return Type. Return Types, shown in a drop down list box, include:

- Date
- String
- Numeric

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Restores the default Folder, removes any Expression Name or by Return Type constraint you may have specified, and refreshes the screen.

Expressions Container

The Expressions container presents a grid containing all of the Expression rules that meet your search criteria. The Expressions summary grid offers several controls that allow you to perform different functions when an Expression rule is selected.



<input type="checkbox"/>	Expression Name ▲	Folder Name	Return Type	Created By	Creation Date
<input type="checkbox"/>	PFT_ABS	GASEGR2	Numeric	STUSER2	12/10/09 17:42:24
<input type="checkbox"/>	PFT_SUM_1	GASEGR2	Numeric	STUSER2	12/10/09 17:45:24
<input type="checkbox"/>	Sample 6	GASEGR2	Numeric	STUSER2	12/22/09 05:35:01
<input type="checkbox"/>	TEST_EXP	GASEGR2	Numeric	STUSER2	12/09/09 13:19:45

To select an Expression, click on a check box in the first column of the grid. More than one Expression can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the Expression.

You may select or deselect all of the Expressions in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Expression Name column header.

Add

Clicking on the Add control begins the process of building a new Expression. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View

control allows you to view the contents of an Expression on a read-only basis. The View control is only enabled when a single Expression has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Expression. The Edit control is only enabled when a single Expression has been selected.

Copy

Selecting a single row out of the grid enables the Copy control. Clicking on the Copy control allows you to create a copy of an existing Expression. The Copy control is only enabled when a single Expression has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Expression(s) you have selected. OFSAAI will not allow you to delete Expressions which are utilized within other OFSAA rules, e.g., within a Data Element Filter, an Allocation rule, etc.

Expressions Summary Grid

The following columns categorize each Expression in the summary grid:

- Expression Name
- Folder Name
- Return Type
- Created By
- Creation Date

Expression Name

Displays the Expression's short name. Performing a "mouse-over" on an Expression Name displays the Expression's description.

Folder Name

Displays the name of the Folder in which a rule is stored.

Return Type

Expression rules operate like SQL function calls in the sense that they return a single data value. Return Type indicates the type of data that is returned by an Express rule: String, Date, or Numeric. See additional discussion below under Expression Functionality.

Created By

Created By displays the name of the user who created the Expression rule. If an Expression is saved as Read Only, only the user who created the rule, i.e., the owner, may modify the rule.

Creation Date

Displays date and time at which the rule was initially created.

Navigation within the Detail Screen

When you Add, Edit, Copy, or View an Expression, the Expressions Detail Screen is displayed.

Expression			
Expressions > Expression Definition (Edit Mode)			
Expression Details			
Expression Name*	Mortgages Matched Spread ABS	Description	Get absolute value of TP Matched Spread for Mortgages
Folder Name	GASEGR2	Access Type	<input type="radio"/> Read Only <input checked="" type="radio"/> Read/Write
Entity Group Selection			
Selected Variants	Entity Group	Functions	Operators
Add Constant			
Expression			
ABS(Mortgages Matched Spread)			

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Audit Trail		User Comments	
System ID :211074			
Created By	PFTADMIN@BRAMAN	Creation Date	13-JAN-10 09:52:47
Last Modified By	PFTADMIN@BRAMAN	Last Modification Date	13-JAN-10 12:01:16

Expression Functionality

OFSAA Expressions operate similarly to SQL function calls in that they apply a formula to one or more database columns in order to return a single value. For example, you might apply a YEAR formula to a date column to yield a numeric return value of a year. For a single instrument row in your data having an origination date of 01/01/2010, this Expression would return the number 2010. As another example, you might construct an Expression that evaluates a balance times a rate times an accrual basis factor to return a current month revenue or expense number.

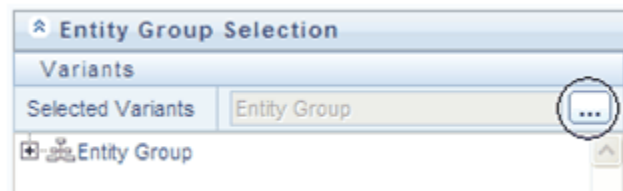
Expression Details Container

As with any OFSAA rule type, you must supply a Name, Folder, and Access Type; you may optionally supply a Description.

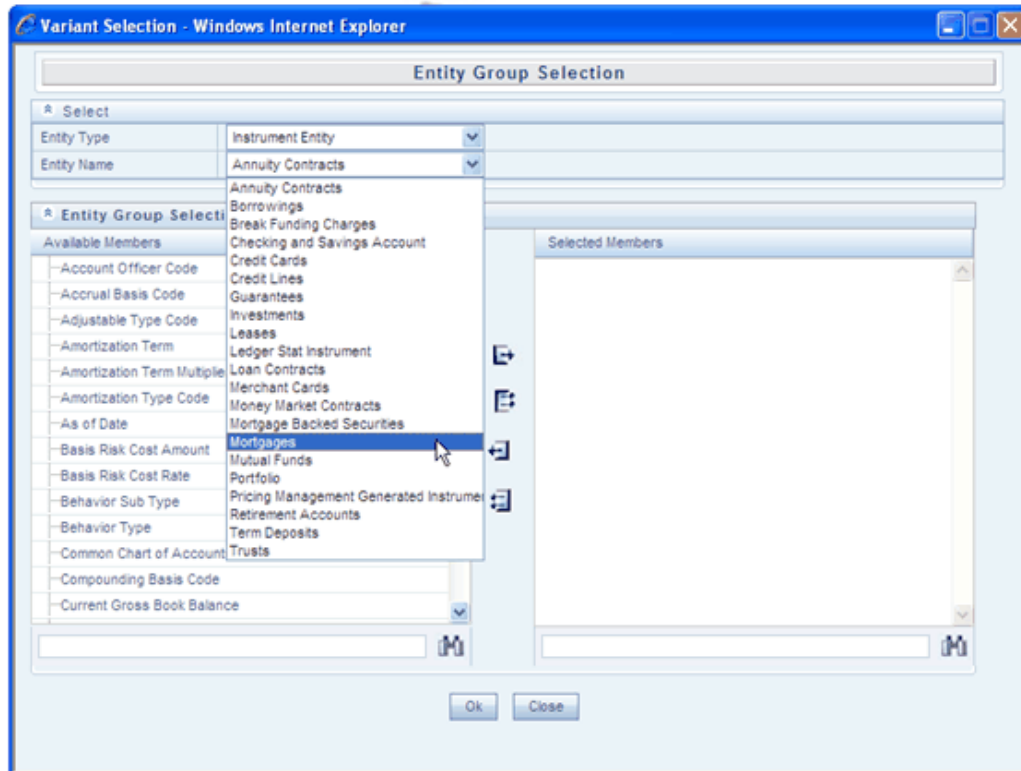
Entity Group Selection Container

Variants Sub-Container

To begin the process of creating a new Expression rule, you must specify the tables and columns (or even other expressions) that you want to use in the definition of your new Expression. Click on the ellipses (...) to the right of "Selected Variants" in the Variants sub-container of the Entity Group Selection container.



Clicking on the Selected Variants ellipses invokes an Entity Group Selection pop-up dialog. Here you may select an Entity Type and an Entity Name.



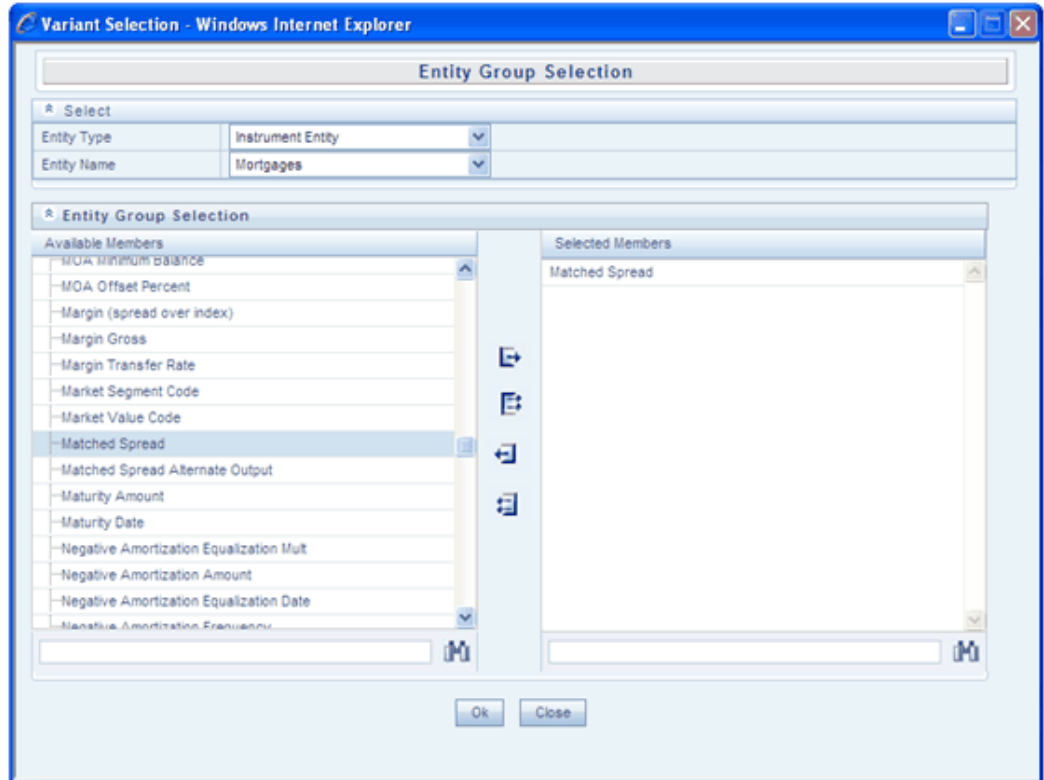
Entity Type & Entity Name Drop Down List Boxes

Entity Types include Instrument Entity, Non- Instrument Entity, and Expression.

Instrument Entity Type

When you select the Instrument Entity type (the most commonly chosen type), the Entity Name drop down list box is populated with all registered Instrument and Transaction Summary type tables; the management ledger table (Ledger/Stat) is also available.

Select a table from the Entity Name drop down list box and then use the shuttle box controls (>, >>, <, <<) to select the column name or names you want to use within your Expression rule.



When you click OK, the Variant Selection dialog closes and Variants sub-container of the underlying Expression rule is updated. Click on the "+" control to expand the Entity Group hierarchy in order to see the tables and columns you have selected (see example below).



Non-Instrument Entity Type

Selecting the Non-Instrument Entity Type also populates the Entity Name drop down list box with Instrument and Transaction Summary type tables, but it additionally populates the Entity Name drop down list box with a number of metadata tables (tables that store non-business data).

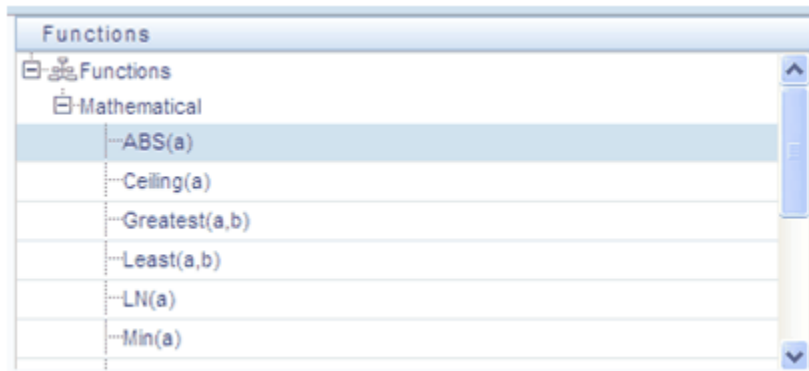
Expression Entity Type

Selecting the Expression Entity Type populates the Entity Name drop down list box with all of the currently defined Expression rules. The steps required to select an Expression rule are identical to those described above for selecting tables and columns.

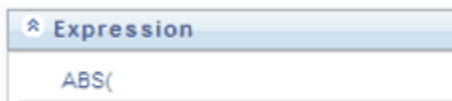
Functions and Operators Sub-Containers

Once you have specified the tables and columns and/or Expressions that you want to utilize within your new Expression rule, you work with Functions and Operators to construct your desired formula.

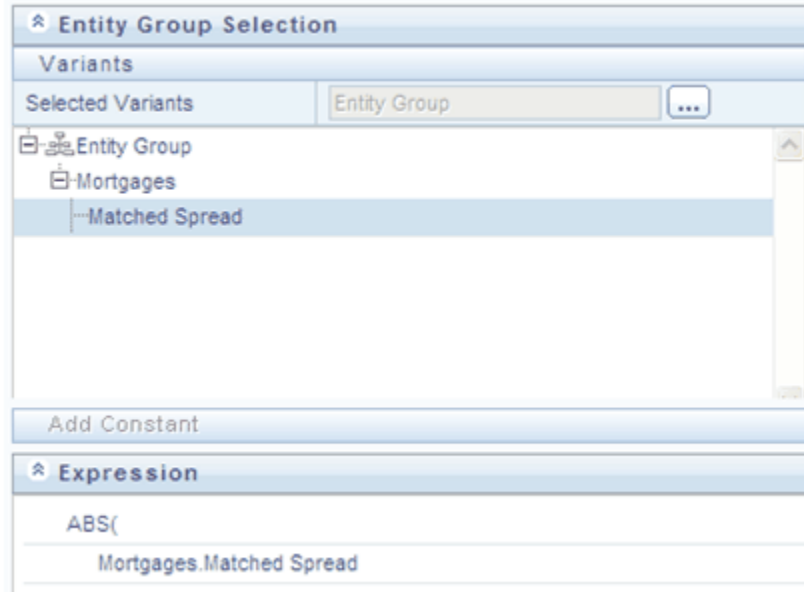
Double click on Variants (tables and columns and/or Expressions), Functions, and Operators to add them into the Expressions container.



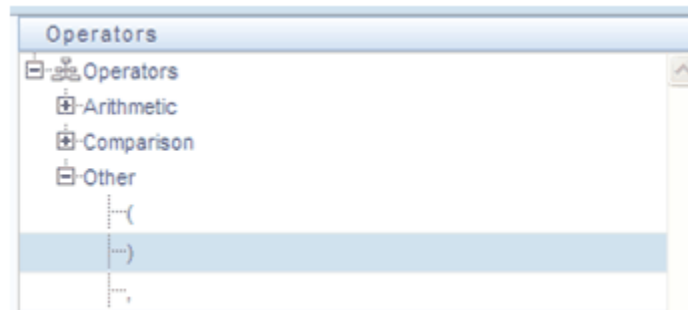
For example, to construct an Expression that returns the absolute value of the Matched Spread column from the Mortgages table, begin by double clicking on the absolute value operator (ABS) in order to add it into the Expression container.



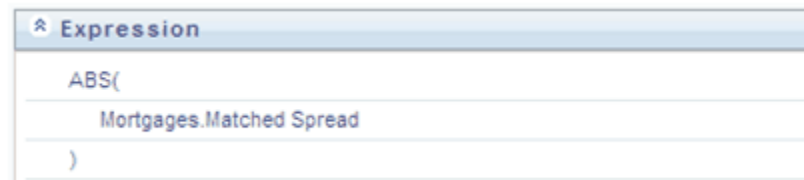
Next, double click on the Matched Spread column from the Mortgages table in order to add the column to the Expression container.



Finally, double click on the Right Parenthesis operator in order to close the expression.



Again, the result of your double clicking operation is to update the formula within the Expression container.

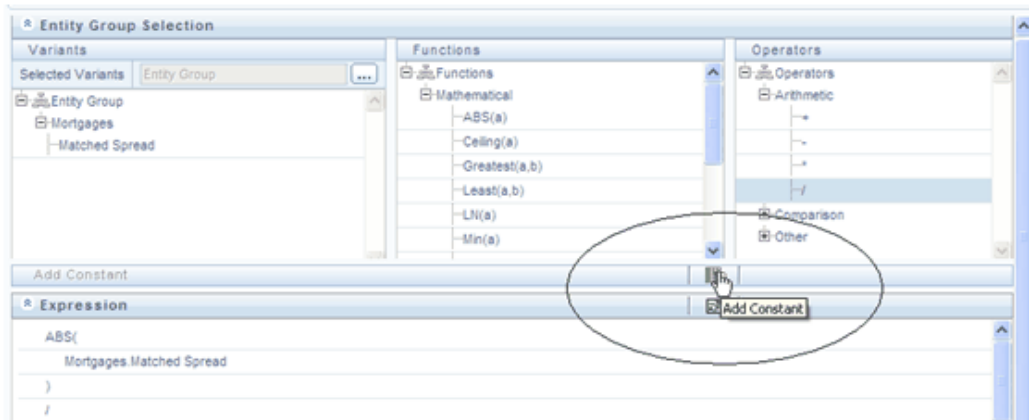


Constants

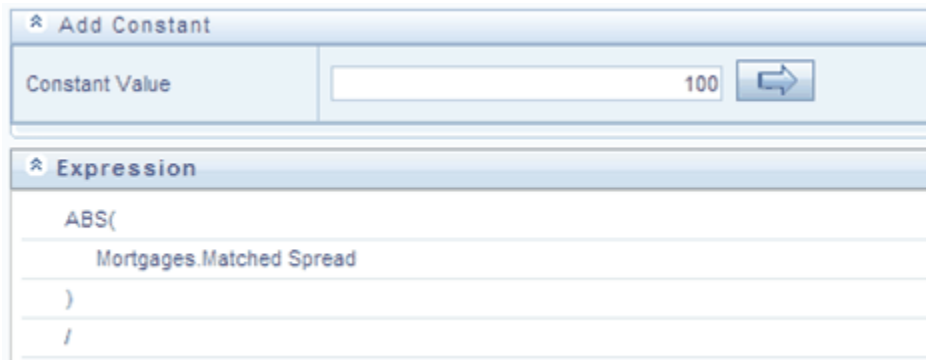
You may also add constant coefficient values to your formulas. For example, rates are generally stored in the form of percentages where 5.12 in the database means 5.12%.

You may wish to modify your absolute value formula to divide by 100. To do so you would continue by double clicking on the division operator (/). After the formula is

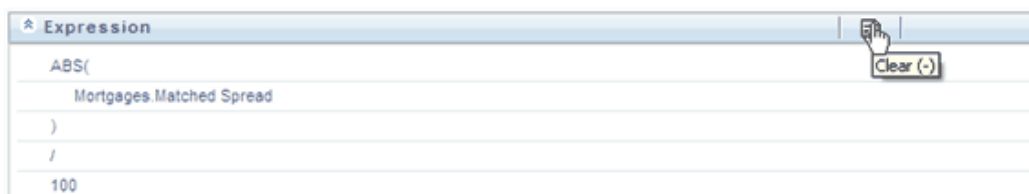
updated to include the division operator, click on the Add Constant control located in the first row beneath the Entity Group Selection container.



Enter a constant value of 100 and click on the right arrow control.



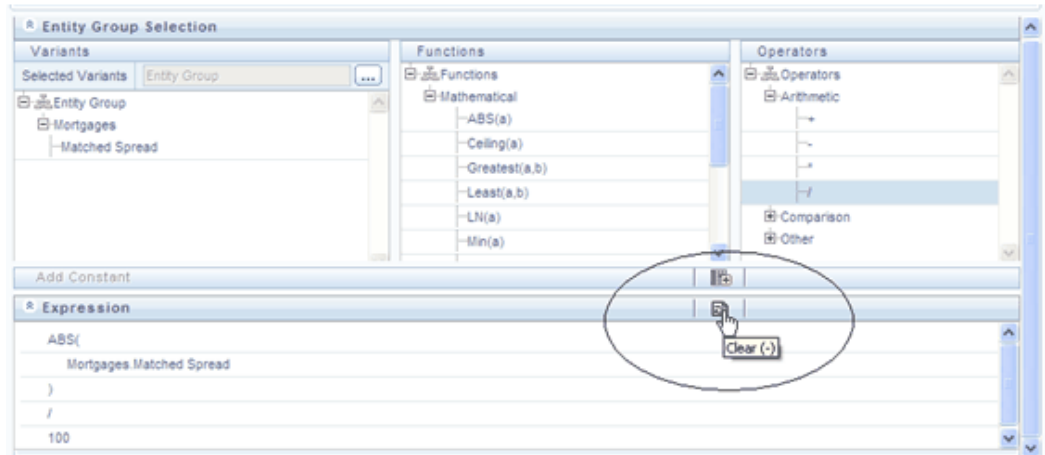
Clicking on the right arrow control completes the Expression.



Expression Container

The Expression container displays your formula step-by-step as you build it. When your formula is complete you may save the Expression rule. Saving an Expression rule invokes validation logic to ensure that you have constructed a legitimate formula, i.e., one that may be legally applied to your database.

If you encounter errors or if for any reason you want to reconstruct a formula, click on the Clear control at the top of the Expression container.



After clicking on the Clear control, you will be prompted to ensure you wish to clear the formula. If you answer OK, the formula is erased and you may start over in specifying your formula.

OFSAA Rate Management

Overview

OFSAA Rate Management is a comprehensive utility enabling you to manage currencies, yield curves, and interest rate & currency exchange rate data with a high degree of security and control. OFSAA Rate Management also allows you to maintain economic forecasts such as GDP growth, inflation rates, or unemployment projections that may be linked to your models for interest rates, exchange rates, or new business growth.

Historical rate data obtained from OFSAA Rate Management is utilized within all of the Enterprise Performance Management (EPM) applications (OFSAA Funds Transfer Pricing, OFSAA Profitability Management, OFSAA Asset Liability Management, and OFSAA Balance Sheet Planning). Details regarding how each application draws upon Rate Management data are provided in the body of this chapter.

Rate Management Subject Areas

There are four primary subject areas or modules within Master Maintenance > Rate Management:

- Interest Rates
- Currency
- Currency Rates
- Economic Indicators

Interest Rates

The quality and availability of interest rate information varies throughout the world. In many markets, gathering comprehensive rate information is a challenge because of insufficient security types, inconsistent quoting conventions, and lack of liquidity. The

Interest Rates module within OFSAA Rate Management allows you to define and manage complex yield curve definitions using multiple rate formats and other rate attributes to give you data storage capabilities appropriate to your market. The Interest Rates module also supports the entry and maintenance of historical rate data for each yield curve you define.

Historical interest rate data from OFSAA Rate Management is utilized within OFSAA Transfer Pricing to generate transfer rates and option costs. Historical interest rate data is also utilized within OFSAA Asset Liability Management and within OFSAA Balance Sheet Planning in the generation of forecasted interest rate scenarios.

Currency

Financial institutions commonly transact business in more than one currency. Transacting business in multiple currencies demands functional capabilities for multi-currency accounting and currency rate management.

OFSAA Rate Management's Currency module supports the definitions and maintenance of currencies. Currency definitions are fundamental to the definition of both interest rate yield curves and currency exchange rates. A key attribute of every yield curve is the currency with which it is associated; and currency exchange rates can only be established between defined currencies. OFSAA Rate Management provides a comprehensive list of ISO-defined currencies; you may also define and add your own user-defined currencies.

Currency Rates

OFSAA Rate Management's Currency Rates module draws upon the currencies you have defined and activated in the Currency module to support the entry and maintenance of historical exchange rates. Currency exchange rates are utilized within:

- OFSAA Funds Transfer Pricing "Ledger Migration" processes (see the *Oracle Financial Services Analytical Applications Funds Transfer Pricing User Guide*)
- OFSAA Asset Liability Management currency consolidation process (see the *Oracle Financial Services Analytical Applications Asset Liability Management (OFSALM) User Guide*)
- OFSAA Profitability Management multi-currency allocations (see the *Oracle Financial Services Analytical Applications Profitability Management (OFSPM) User Guide*)

Economic Indicators

An economic indicator is any economic statistic such as the Consumer Price Index (CPI), the growth rate of the Gross Domestic Product (GDP), the unemployment rate, the Purchasing Managers Index, indices of consumer confidence, etc. Such macroeconomic statistics tell us how well the economy has behaved in the past. Some economic indicators are referred to as "lagging" indicators while others are classified as

"leading" indicators. Leading indicators may provide insights into the future direction of the economy.

OFSAA Rate Management's Economic Indicators module allows you to define and store such historical indicators. Economic Indicators provide baselines from which OFSAA Asset Liability Management can generate forecasts of future values of economic statistics that can affect new business or other modeling assumptions.

Interest Rates Summary Screen

When you first navigate to Master Maintenance > Rate Management > Interest Rates, an empty screen will be displayed. After you have constructed one or more interest rate curves, navigating to Master Maintenance > Rate Management > Interest Rates will display a summary screen showing each of the interest rate curves that you have previously built.

The screenshot shows the 'Interest Rates' summary screen. At the top, there is a search container with fields for 'Code', 'Name', 'Currency', and 'Rate Format'. Below the search container is a table with the following columns: Code, Name, Rate Format, Compound Basis, Accrual Basis, Currency, Creation Date, Created By, Last Modification Date, and Last Modified By. The table contains 11 rows of data representing different interest rate curves.

Code	Name	Rate Format	Compound Basis	Accrual Basis	Currency	Creation Date	Created By	Last Modification Date	Last Modified By
1	Zero Rate	Zero Coupon Yield	Semiannual	Actual/Actual	US Dollar	05/22/2009 13:15:28	RTUSER	07/21/2010 16:43:20	POORNIMAB
2	Test RC	Zero Coupon Yield	Annual	Actual/Actual	US Dollar	06/09/2010 13:16:59	RTUSER		
4	S4	Zero Coupon Yield	Annual	Actual/Actual	Barbados Dollar	06/11/2009 15:51:55	RTUSER	08/28/2009 15:13:10	RTUSER
7	RC S7	Yield to Maturity	Monthly	Actual/Actual	Netherlands Antillean Guilder	07/02/2009 15:18:30	GUIUSER	08/31/2009 19:13:55	RTUSER
8	Test RC S8	Zero Coupon Yield	Annual	Actual/Actual	Andorran Peseta	07/03/2009 13:07:34	GUIUSER	07/03/2009 13:07:39	GUIUSER
10	Treasury Index	Zero Coupon Yield	Annual	Actual/Actual	US Dollar	05/21/2009 16:24:41	RTUSER	06/01/2009 16:46:33	GUIUSER
11	Single Rate Test (Code 11)	Zero Coupon Yield	Annual	Actual/Actual	US Dollar	05/21/2009 16:25:55	RTUSER	05/21/2009 16:46:01	RTUSER

Search Container

A Search container is provided in which you may search for interest rate curves by Name or by Currency (by ISO currency code).

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control removes any Name or Currency constraint you may have specified and refreshes the screen.

Interest Rates Container

The Interest Rates container presents a grid containing all of the interest rate curves that meet your search criteria. The Interest Rates summary grid offers several controls that allow you to perform different functions when an interest rate curve is selected.

To select an interest rate curve, click on a check box in the first column of the grid. More

than one interest rate curve can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the interest rate curve.

You may select or deselect all of the interest rate curves in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add

Clicking on the Add control begins the process of building a new interest rate curve. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of an interest rate curve on a read-only basis. The View control is only enabled when a single interest rate curve has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved interest rate curve. The Edit control is only enabled when a single interest rate curve has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the interest rate curves you have selected.

Data Loader

The Data Loader Icon executes a function to import historical rates and parameters for all defined Interest rate Curves. For more information on setting up the automated process, see *Oracle Financial Services Analytical Applications Data Model Utilities User Guide*.

To execute a data load, click on the Data Loader icon. A warning message will appear "Upload all available Interest Rates and Parameters?" Click ok, and all historical rates and parameters will be loaded.

Interest Rates Summary Grid

The following columns categorize each interest rate curve in the summary grid:

- Name
- Rate Format

- Compound Basis
- Accrual Basis
- Currency
- Creation Date
- Created By
- Last Modification Date
- Last Modified By

Name

Displays the interest rate curve's short name. Performing a "mouse-over" on a row within the grid displays the interest rate curve's detailed description.

Rate Format

Displays the interest rate curve's rate format (zero coupon or yield-to-maturity).

Compound Basis

Displays the interest rate curve's compounding basis (Annual, Semiannual, or Simple).

Accrual Basis

Displays the interest rate curve's Accrual Basis (e.g., 30/360, Actual/Actual, etc).

Currency

Displays the currency (the Reference Currency) to which an interest rate curve is applicable.

Creation Date

Displays the date and time at which an interest rate curve was created.

Created By

Displays the name of the user who created an interest rate curve.

Last Modified Date

Displays the date and time at which an interest rate curve was last modified.

Modified By

Displays the name of the user who last modified an interest rate curve.

Interest Rates Detail Screen

When you Add, Edit, or View an interest rate curve, the Interest Rate Code Detail Screen is displayed. The Interest Rate Code detail screen is comprised of an Interest Rate Code Details container, 5 Interest Rate Code tabs, and an Audit Trail container.

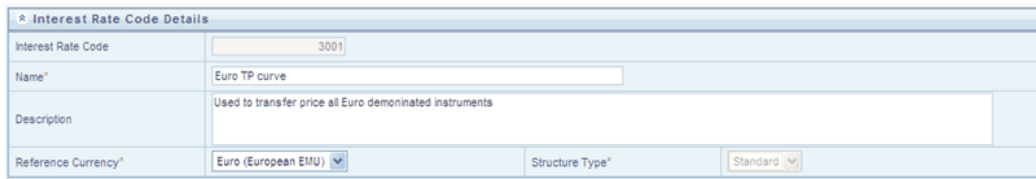
The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Interest Rate Code Details Container

Is explained in detail below.

Interest Rate Code

When constructing a new yield curve, you must specify an Interest Rate Code between 0 and 99,999. Interest Rate Codes are used internally to uniquely identify yield curves. When working with Rate Manager or other OFS Analytical Applications, you generally reference yield curves by Name, not by Interest Rate Codes. Interest Rate Codes, however, are embedded within your instrument data (for example, the INTEREST_RATE_CODE and T_RATE_INT_RATE_CD columns within your instrument data are populated with Interest Rate Codes). Once you have saved a yield curve, you may not renumber its Interest Rate Code.



Interest Rate Code Details	
Interest Rate Code	3001
Name*	Euro TP curve
Description	Used to transfer price all Euro denominated instruments
Reference Currency*	Euro (European EMU) ▼
Structure Type*	Standard ▼

Name & Reference Currency

You must also provide a Name and Reference Currency for your yield curve. Unlike Interest Rate Codes, you may rename or change the reference currency for previously saved yield curves. While you may choose to rename a yield curve, however, it is very unlikely that you will chose to modify a yield curve's Reference Currency. A yield curve's Reference Currency is the currency for which your market rates are valid. For example, the Reference currency for a Prime Rate yield curve would be US Dollars. LIBOR or other internationally quoted rates are always quoted with respect to an underlying reference currency (e.g., US Dollar LIBOR, Euro LIBOR, etc). The drop-down list box for Reference Currencies displays only "Active" currencies. See the

section below entitled Currency for a discussion of Active and Inactive currencies.

Description

You may optionally provide a description of your yield curve; you may modify a yield curve's description at any time.

Structure Type

Another required attribute for each yield curve is its Structure Type. Structure Type supports both Standard and Hybrid yield curve definitions. Hybrid yield curves are re-expressions of one or more pre-existing Standard yield curves. For additional information, see Hybrid Term Structure Tab under Interest Rate Code Tabs below.

Interest Rate Code Tabs

Interest Rate Code tabs are used to define your yield curve and to add, edit, or delete historical interest rate data. The Interest Rate Code tabs are:

- Attributes
- Terms
- Historical Rates
- Parameters
- Hybrid Term Structure



Navigating Between Interest Rate Code Tabs

For new yield curves, you must begin with the Attributes tab. Once you have selected attributes for a yield curve, you will typically not change them. When you have finished assigning attributes, navigate to the Terms tab in order to establish a term structure for your yield curve, i.e., an overnight rate, a one month rate, a three month rate, etc. To navigate to the Terms tab, you may either select the Apply button on the Attribute tab or you may simply click on the Terms tab.

Note: You must have specified an Interest Rate Code, a Name, and a Reference Currency in the Interest Rate Code Details container before you can navigate to the Terms tab.

As with your yield curve attributes, once you have established a term structure for your yield curve you will only rarely come back to change it. The first time you navigate to

the Terms tab, an initial 1 month term point is provided, but even if this is the one and only term point you want for your yield curve, you must select the Apply button to tell the system that you have finished your term structure specification. In future revisions to your yield curve's definition, you may navigate directly to the Historical Rates tab simply by clicking on it, but if you modify your term structure in any way, you must always select the Apply button on the Term tab before you can navigate to the Historical Rates tab.

The Historical Rates tab is used to input interest rate data. This is the tab you will most often return to for maintaining your interest rate database over time. To navigate to the Historical Rates tab, you may either select the Apply button on the Terms tab or you may simply click on the Historical Rates tab if you have already established your term structure.

Note: You must have specified (1) an Interest Rate Code, a Name, and a Reference Currency in the Interest Rate Code Details container and (2) a term structure in the Terms tab before you can navigate to the Historical Rates tab.

Attributes Tab

Yield curve attributes include Rate Format, Compound Basis, and Accrual Basis. Once you have initially saved a yield curve, you typically will not change these attributes, but Rate Management will allow you to do so.

Attributes	Terms	Historical Rates	Parameters	Hybrid Term Structure
Rate Format*	Yield to Maturity			
Compound Basis*	Annual	Accrual Basis*	Actual/Actual	
<input type="button" value="Apply"/>				

Rate Format

As part of your yield curve definition, you must select either the Zero Coupon or Yield-to-Maturity rate format. Regardless of which format you select, rates entered into Rate Management (in the Historical Rates tab) are always entered in nominal form, e.g., 5.125% or 6.875%, not as discount factors. For details on how the two rate formats affect internal cash flow engine calculations, see the *Oracle Financial Services Analytical Applications Cash Flow Engine Reference Guide*.

Compound Basis

You must also select a compounding basis for your yield curve: Annual, Semiannual, or Simple. Annual is the most common method. For details on Compound Basis and how different compounding bases affect cash flow calculations in OFSAA, see the *Oracle*

Accrual Basis

You must also select an accrual basis for your yield curve. For details on Accrual Basis and how different accrual bases affect cash flow calculations in OFSAA, see the *Oracle Financial Services Analytical Applications Cash Flow Engine Reference Guide*.

Terms Tab

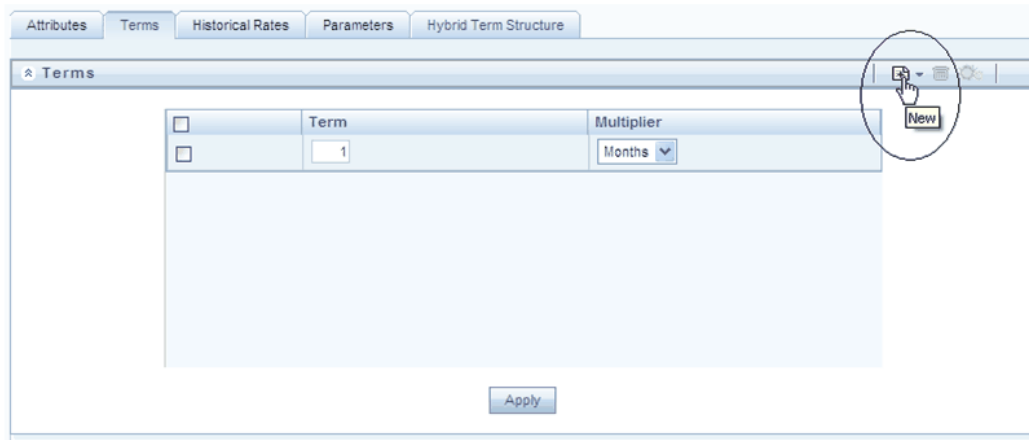
Use the Terms tab to construct your yield curve's term structure. You may specify as many yield curve terms as you wish ranging from 1 day to 100 years.

<input type="checkbox"/>	Term	Multiplier
<input type="checkbox"/>	1	Days
<input type="checkbox"/>	1	Months
<input type="checkbox"/>	2	Months
<input type="checkbox"/>	3	Months
<input type="checkbox"/>	4	Months
<input type="checkbox"/>	5	Months

Apply

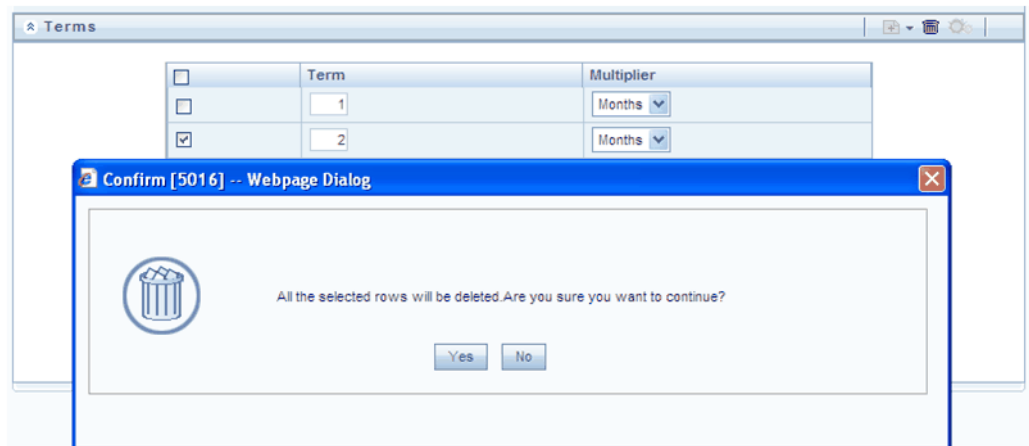
Adding New Term Points

Click on the Add control to add new term points. After clicking on the Add control, select a Term value and a Multiplier (e.g., 7 days, 2 months, 5 years, etc).



Deleting Existing Term Points

If you wish to delete an existing term, select the term point (or terms) you wish to delete and click on the Delete control, and confirm that you want to delete the term (or terms) you have selected.



Historical Rates Tab

Use the Historical Rates tab to enter, modify, or view interest rate data. Data should be entered as simple percentages (e.g., 5.125, 4.875, etc).

Effective Date	1 Days	1 Months	2 Months	3 Months	4 Months	5 Months
04-Dec-2009	3.750000	3.880000	3.965000	4.060000	4.163300	4.261700
07-Dec-2009	3.750000	3.896300	3.975000	4.103300	4.196700	4.296700
08-Dec-2009	3.750000	3.968300	3.996700	4.103300	4.198300	4.296700
15-Dec-2009	3.750000	3.991700	4.075000	4.250000	4.326700	4.418300
16-Dec-2009	3.750000	3.976700	4.065000	4.103300	4.255000	4.333300
23-Dec-2009	3.750000	4.005000	4.065000	4.156700	4.233300	4.336700

By default, the Historical Rates tab will display interest rate data for the past month (i.e., for the 30 days leading up to the current date). Click on the Effective Date Range drop-down list box to expand your view to the last 3 months, 6 months, one year, 3 years, 6 years or all rate data.

Effective Date	1 Days	1 Months	2 Months	4 Months
02-Feb-2010	3.750000	4.100000	4.18	4.280000
09-Feb-2010	3.750000	3.933300	4.026300	4.150000

Rate Lookup Behavior Between Term Points

The OFSAA cash flow engine is common to OFSAA Funds Transfer Pricing, OFSAA Pricing Management (Transfer Pricing Component), OFSAA Asset Liability Management, and OFSAA Balance Sheet Planning. In looking up rates from OFSAA Rate Management, the cash flow engine will, where necessary, perform an interpolation between yield curve term points. For example, in determining a straight term transfer rate (common for products such as time deposits), the engine may need to determine a three month rate from a yield curve that contains only a one month rate and a six month rate. In such a case, the cash flow engine will perform an interpolation to determine the implied three month rate. While each of the above applications supports simple linear interpolation, OFSAA Transfer Pricing and OFSAA Asset Liability Management also support cubic and quartic spline interpolation methods. These more advanced methods will be supported for all OFS Analytical Applications in a future release.

Rate Lookup Behavior Beyond Term Points

In cases where the cash flow engine needs to determine a rate from a yield curve for a term point smaller than the first term point of the yield curve, the engine will utilize the

first term point of the yield curve. For example, if the engine needs to determine an overnight rate from a yield curve whose first term point is one month, the engine will utilize the one month rate. Similarly, in cases where the cash flow engine needs to determine a rate from a yield curve for a term point greater than the longest term point on the yield curve, the engine will utilize the last term point of the yield curve. For example, if the engine needs to determine a 30 year rate from a yield curve whose last term point is 10 years, the engine will utilize the 10 year rate.

Rate Lookup Behavior Between Effective Dates

In looking up rates from OFSAA Rate Management for a business date, the cash flow engine may find that there is no rate data for that specific business date. For example, in generating an original term transfer rate for an instrument with an origination date of June 14, 2010, the cash flow engine may find rate data for May 31, 2010 and for June 30, 2010 but no rate data for any dates between May 31, 2010 and for June 30, 2010. In such cases, the cash flow engine always falls back to the latest available rate data prior to the business date of interest (May 31, 2010 in this case).

Parameters Tab

The following parameters are utilized in stochastic modeling of interest rates in OFSAA Transfer Pricing and OFSAA Asset Liability Management:

- Mean reversion speed
- Long run rate
- Merton volatility
- Vasicek volatility

Merton volatility is utilized in the Merton and Ho & Lee term structure models and Vasicek volatility is utilized in the Vasicek and Extended Vasicek models.

Effective Date	Mean Reversion Speed	Long Run Rate	Merton Volatility	Vasicek Volatility	Rate Data Source
21-Feb-2010	4.000000	4.125000	0.01	0.01	UI

Values for long run rate and volatility are assumed to be percentages. For example, a long run rate of 5% is displayed as 5.000.

To maintain the integrity of your data, Rate Management restricts the input values it accepts. Note the valid range and default setting for each parameter.

Parameter	Valid Range	Valid Range
Mean reversion speed	0 to 10.0	0
Long run rate	0 to 999.9999%	0
Volatility	0.01% to 10.0%	0.01%

For details on term structure models and stochastic processing, see *the Oracle Financial Services Funds Transfer Pricing User Guide, the Oracle Financial Services Asset Liability Management (OFSALM) User Guide, and the Oracle Financial Services Analytical Applications Cash Flow Engine Reference Guide.*

Hybrid Term Structure Tab

Hybrid term structures will allow you to specify three types of hybrid yield curves:

- Spread
- Moving Average
- Merged

The screenshot shows a software interface for configuring interest rates. At the top, there are tabs for 'Attributes', 'Terms', 'Historical Rates', 'Parameters', and 'Hybrid Term Structure'. The 'Hybrid Term Structure' tab is active, displaying a section titled 'Interest Rates'. Below this, there is a 'Hybrid Curve Type' dropdown menu currently set to 'Merge'. To the left is a list box titled 'Available Interest Rate Codes' containing items like '1: Zero Rate', '2: Treas RC', '10: Treasury Index', '11: Single Rate Test (Code 11)', '17: SIF', '20: Mid-Period Repricing (Code 20)', '30: Prime Weekly (Code 30)', '50: 3 Month Treasury', '51: 101 MRR for FP', and '52: 500 - KF Day - FP'. To the right of this list are buttons for 'Add', 'Add All', 'Remove', and 'Remove All'. Further right is an empty list box titled 'Selected Interest Rate Codes'. Below these elements is an 'Apply' button. At the bottom of the window are 'Save' and 'Cancel' buttons.

Hybrid yield curves are built up from either one or more standard yield curves. When you add, modify, or delete any historical rate data from a standard yield curve, the data associated with any related hybrid yield curve should also be updated (see Generate Historical Rates below). Once defined, Hybrid Yield Curves are used like any other interest rate curve in the system. You can reference these curves within OFSAA application business rules that allow selection of an Interest Rate Code.

Spread

A Spread hybrid yield curve is defined as the difference between two standard yield curves. The "spread" type of hybrid yield curve may be useful in establishing liquidity risk or basis risk yield curves.

Moving Average

Moving average hybrid yield curves represent moving average data of a single underlying standard yield curve. These curves are typically used in Funds Transfer Pricing.

Merged

Merged hybrid yield curves represent a blending of two or more underlying yield curves. In constructing a "merged" type of hybrid yield curve, you specify the percentage weighting applicable to each of the underlying standard hybrid yield curves.

Defining a Hybrid Curve

To define a hybrid curve select the Source Type: Hybrid, in the Hybrid Term Structure tab, select the Hybrid Curve Type (Spread, Moving Avg., or Merged), and select the Interest Rate Code(s) for the hybrid type. Click on "Apply."

The screenshot displays the Oracle Financial Services Profitability Management (OFSPM) interface. The top section is titled "Interest Rate Code Details" and includes fields for "Interest Rate Code" (556), "Name" (Hybrid ALM UO), and "Reference Currency" (US Dollar). The "Structure Type" is set to "Hybrid". Below this, the "Interest Rates" tab is active, showing the "Hybrid Curve Type" set to "Moving Average". A list of "Available Interest Rate Codes" is shown, including "1: Zero Rate", "2: Test RC", "17: S17", "20: 1/6-Period Replicon (Code 20)", "30: Prime Weekly (Code 30)", "50: 3 Month Treasury", "51: 1st USD for FP", "52: 600 - KP Day - FP", "53: RC USD Audit", and "75: 5.2 - New Test RC3 Replica". A "Selected Interest Rate Codes" list contains "10: Treasury Index". Buttons for "Add", "Add All", "Remove", "Remove All", and "Apply" are visible.

Generate Historical Rates

Once a hybrid curve is defined, you can generate historical rates as far back as the rate source curves allow. The Generate Frequency determines the frequency of the historical rates populated with the Generate function. If you choose the generate frequency of monthly, it will generate month end values only. If you choose daily, it will generate the maximum number of historical values.

To generate the rates, select the interpolation method (Linear, Cubic or Quartic), select the Generate Frequency (Daily, Weekly, Bi-Weekly, or Monthly) and enter the specific date range (From Date / To Date), Click the "Generate" button. The rates will be populated and you will be directed to the Historical Rates tab to view the results.

Interpolation	Linear Interpolation	Generate Frequency	Monthly
From Date		To Date	

Currency

Upon initially navigating to Master Maintenance > Rate Management > Currency, a summary screen displays a comprehensive list of more than 170 seeded ISO currency codes.

Currency				
Search				
Currency Code				Currency Name
Currencies				
<input type="checkbox"/>	Code	Currency Name	Reference Interest Rate Code	Reporting Currency
<input type="checkbox"/>	000	Default Currency		No
<input type="checkbox"/>	001	Functional Currency		
<input type="checkbox"/>	002	Non Currency Basis		
<input type="checkbox"/>	ADP	Andorran Peseta		Inactive
<input type="checkbox"/>	AED	United Arab Emirates Dirham		Inactive
<input type="checkbox"/>	AFA	Afghanistan Afghani		Inactive
<input type="checkbox"/>	ALL	Albanian Lek		Inactive
<input type="checkbox"/>	AMD	Armenia Dram		Inactive
<input type="checkbox"/>	ANG	Netherlands Antillian Guilder		Inactive
<input type="checkbox"/>	AOK	Angolan Kwanza		Inactive
<input type="checkbox"/>	ARS	Argentine Peso		Inactive
<input type="checkbox"/>	ATS	Austrian Schilling		No
<input type="checkbox"/>	AUD	Australian Dollar		No
<input type="checkbox"/>	AWG	Aruban Florin		Inactive
<input type="checkbox"/>	AZS	Azerbaijan Manat		Inactive
<input type="checkbox"/>	BBB	Barbados Dollar		Inactive
<input type="checkbox"/>	BDT	Bangladeshi Taka		Inactive
<input type="checkbox"/>	BEF	Belgian Franc		Inactive
<input type="checkbox"/>	BES	Belarus Rouble		Inactive

Search Container

A Search container is provided in which you may search for currencies by Name or by Currency (by ISO currency code).

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control removes search constraint you may have specified and refreshes the screen.

Currencies Container

The Currencies container presents a grid containing all of the currencies that meet your search criteria. The Currencies summary grid offers several controls that allow you to perform different functions when a currency is selected.

To select a currency, click on a check box in the first column of the grid. More than one currency can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the currency.

You may select or deselect all of the currencies in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Code column header.

Add

Clicking on the Add control begins the process of adding a new currency. The Add control is disabled if any rows in the grid have been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify an existing currency. The Edit control is only enabled when a single currency has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the currency or currencies you have selected.

Currencies Summary Grid

The following columns categorize each currency shown in the summary grid:

- Code
- Currency Name
- Reference Interest Rate Code
- Reporting Currency
- Status

Code

For seeded currencies, these are ISO Currency Codes. For user-defined currencies, these may be any pure character string (no numbers) up to a length of 3 characters.

Currency Name

For seeded currencies, these are ISO Currency Codes. For user-defined currencies, these may be any string up to a length of 40 characters.

Reference Interest Rate Code

Reference Interest Rate Code is the Interest Rate Code with which a currency is associated for forecasting purposes. You may define multiple yield curves each of which has the same Reference Currency, but a currency may only have one Reference Interest Rate Code.

Reporting Currency

A reporting currency is an active currency to which balances in other currencies may be consolidated in order to facilitate reporting. Balances in reporting currencies may be, in turn, consolidated to the functional currency. For example, an American multinational bank might consolidate its holdings in Asian currencies to the Japanese yen (reporting currency) and its balances in European currencies to the Euro (reporting currency) after which it might consolidate these reporting currencies to the U.S. dollar (functional currency).

Status

The status of any currency may be either Active or Inactive. You must "activate" a currency before you can:

- Define that currency as a Reference Currency for a yield curve (see Reference Currency above under the section entitled Interest Rates Detail Screen)
- Enter exchange rate data for a currency (see the section below entitled Currency Rates)
- Define Forecast Rates for that currency within OFSAA Asset Liability Management (see Forecast Rates in the *Oracle Financial Services Asset Liability Management (OFSALM) User Guide*)

Special Purpose Currencies

The Currencies container also displays three special-purpose internal currency codes for Default Currency (code 000), Functional Currency (code 001), and Non-Currency Basis (code 002).

The Functional Currency

At the time of installation, Rate Management requires the installer to designate a functional currency for the organization. For example, a Swiss multinational bank

would designate the Swiss franc as its functional currency. Only one functional currency is allowed per organization, and once assigned it cannot be changed. The functional currency is both an active currency and a reporting currency. The 001 functional currency code is utilized within certain OFSAA application interfaces as a synonym for the declared functional currency's ISO Currency Code.

Non-Currency Basis

Every business fact in the OFSAA data model carries with it an ISO Currency Code that describes the currency in which a balance is held. Every instrument row, for example, carries an ISO Currency Code as does every row in the Management Ledger. Particularly in the Management Ledger, you may store statistics such as headcounts, activity counts, square footage, etc. for which there is no meaningful currency basis. Such records utilize the special 002 non-currency basis code.

Editing Currencies

To edit a currency, select a currency and then click on the Edit control. You may not make any modifications the special purpose currencies (000, 001, and 002), and you may not modify any currency Code value. You may, however, modify Currency Name, the Reference Interest Rate Code, the Reporting Currency value (limited to Yes or No), or the currency's Status (limited to Active or Inactive).

You may not inactivate any currency that is:

- Defined as the Reference Currency for any yield curve
- Associated with any exchange rate data
- Utilized within any Forecast Rates rule within OFSAA Asset/Liability Management

Once you have completed your edits, Click on the Save control to save your work.

Adding Currencies

The first row in the Currencies container is an empty row that is ready for you to edit as a new currency. You may select this empty row, click on the Edit control, and generate a new currency. You may also generate a new currency by clicking on the Add control. This will generate another empty row at the top of the Currencies container that is ready for you to edit.

Deleting Currencies

Click on one or more currencies and then select the Delete control. You may not delete any currencies that are utilized elsewhere in the system (see exclusions above under Editing Currencies).

Currency Rates

Upon navigating to Master Maintenance > Rate Management > Currency Rates, the Currency Rates screen is displayed. Within this screen, you may manage historical exchange rates between currencies.

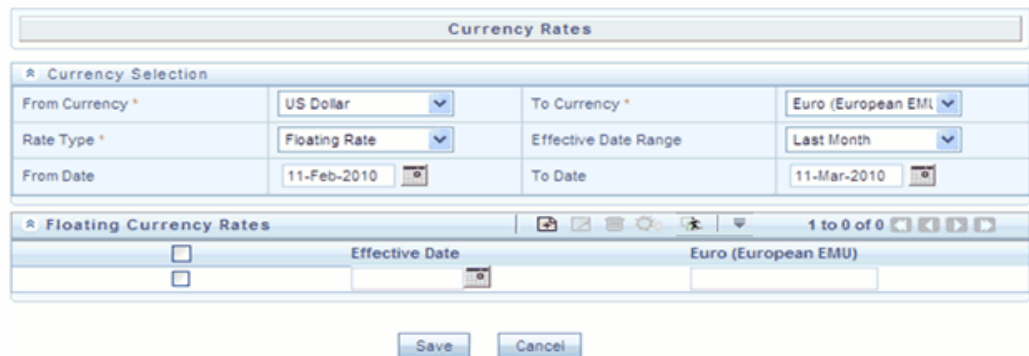


The screenshot shows the 'Currency Rates' application window. At the top is a title bar with the text 'Currency Rates'. Below it is a section titled 'Currency Selection' with a collapse icon. This section contains a grid of four input fields: 'From Currency *' with a dropdown menu showing 'US Dollar', 'To Currency *' with an empty dropdown, 'Rate Type *' with a dropdown menu showing 'Floating Rate', and 'Effective Date Range' with a dropdown menu showing 'Last Month'. Below these are two date fields: 'From Date' with the value '11-Feb-2010' and a calendar icon, and 'To Date' with the value '11-Mar-2010' and a calendar icon.

Initially, this screen will only display a Currency Selection container in which the "From Currency" is defaulted to your first Active currency. You may select another From Currency, but the From Currency drop-down list box displays only currencies that are Active.

Preparing to Work with Exchange Rate Data

In order to begin the process of viewing, entering, modifying, or deleting exchange rate data, you must supply a "To Currency" value. As with the From Currency, the To Currency drop-down list box displays only Active currencies.



This screenshot shows the 'Currency Rates' application window with the 'To Currency' field populated with 'Euro (European EMU)'. Below the 'Currency Selection' section is a new section titled 'Floating Currency Rates' with a collapse icon. It features a toolbar with icons for adding, deleting, and refreshing data, along with a status indicator '1 to 0 of 0'. Below the toolbar is a table with two columns: 'Effective Date' and 'Euro (European EMU)'. The table has two rows, each with an empty input field and a calendar icon. At the bottom of the window are 'Save' and 'Cancel' buttons.

After having selected a To Currency value, select a value for Rate Type: Floating Rate or Fixed Rate (the default selection is Floating Rate). Once you have selected a To Currency value, a second container is displayed: Floating Currency Rates (if you have chosen a Rate type of Floating Rate) or Fixed Currency Rates (if you chosen a Rate type of Fixed Rate).

Floating Rates

Floating exchange rates, such as those between the US Dollar (USD), the British Pound

(GPB), the Japanese Yen (JPY), and the Euro (EUR), are market driven and may change from days-to-day, hour-to-hour, or minute-to-minute.

Fixed Rates

Some countries, especially smaller countries or countries that have experienced significant inflation in the recent past, may wish to "peg" their currency to a larger, more stable currency such as the US Dollar, Japanese Yen, or Euro.

Adding Exchange Rate Data

Once you have specified a value for To Currency, the Floating Currency Rates container appears. If you wish to define a Fixed Rate relationship, select the "Fixed Rate" Rate Type and the Floating Currency Rates container will be replaced by the Fixed Currency Rates container.

Both Currency Rates containers initially display a single blank row followed by the most recent month's exchange rate data (if any such exchange rate data already exists). To enter a single new exchange rate data point, enter your data into the blank row and click on the Save control.

The screenshot shows the 'Currency Rates' window. At the top, there are fields for 'From Currency' (US Dollar), 'To Currency' (Euro (European EMU)), 'Rate Type' (Floating Rate), and 'Effective Date Range' (Last Month). Below these are 'From Date' (11-Feb-2010) and 'To Date' (11-Mar-2010). The main area is titled 'Floating Currency Rates' and contains a table with the following data:

Effective Date	Euro (European EMU)
<input type="checkbox"/>	
<input type="checkbox"/> 11-Feb-2010	1.365840
<input type="checkbox"/> 12-Feb-2010	1.363280
<input type="checkbox"/> 13-Feb-2010	1.360510
<input type="checkbox"/> 14-Feb-2010	1.359870
<input type="checkbox"/> 15-Feb-2010	1.354930
<input type="checkbox"/> 16-Feb-2010	1.360970
<input type="checkbox"/> 17-Feb-2010	1.365870
<input type="checkbox"/> 18-Feb-2010	1.370040
<input type="checkbox"/> 19-Feb-2010	1.370560
<input type="checkbox"/> 20-Feb-2010	1.372580

At the bottom of the window are 'Save' and 'Cancel' buttons.

Effective Date

Select the calendar control to choose an effective date for your new exchange rate data point.

Rate Management stores historical exchange rate data. You may not enter exchange rate data for dates greater than the current date. For more information regarding rate forecasts and the relationship between historical exchange rates for forecasted exchange

rates, see *Oracle Financial Services Asset Liability Management (OFSALM) User Guide*. If you have gaps in your historical exchange rate data, any OFS Analytical Application that needs to perform a rate translation function will fall back to the most recent date for which exchange rate data exists. For example, if an OFS Analytical Application needs to translate a rate from USD to EUR for February 22, 2010 and the latest available USD to EUR rate data in the Rate Management database is February 11, 2010, the application will utilize the exchange rate for February 11, 2010.

Currency Exchange Rate

For both Floating Rates and Fixed Rates, units of the From Currency are converted to one unit of the To Currency. For example:

From Currency	To Currency	Approximate Rate
USD – US Dollar	GPB—British Pounds	1.50
USD – US Dollar	EUR – Euro	1.36
USD – US Dollar	JPY – Japanese Yen	0.01105

Adding Multiple Exchange Rates

Click on the Add control to add additional blank rows into which you may enter additional Effective Dates and Exchange Rates. When you have finished adding multiple new exchange rates, click on the Save control.

Editing Exchange Rate Data

Clicking on the check box on the left hand side of any row of data enables the Edit control. After clicking on the Edit control, the row becomes active and you may edit Effective Date and/or the Exchange Rate after which you may Save your changes.

Viewing Exchange Rate Data

By default, both the Floating Currency Rates container and the Fixed Currency Rates container display the most recent month of historical exchange rate data. You can control the amount of data displayed by selecting a different value from the Effective Date Range drop-down list box in the Currency Selection container.

Currency Rates			
* Currency Selection			
From Currency *	US Dollar	To Currency *	Euro (European EMU)
Rate Type *	Floating Rate	Effective Date Range	Last 6 Months
From Date	11-Sep-2009	To Date	Last Month
			Last 3 Months
			Last 6 Months
			Last Year
			Last 3 Years
			Last 6 Years
			All
* Floating Currency Rates			
<input type="checkbox"/>	Effective Date	Euro (European EMU)	
<input type="checkbox"/>			
<input type="checkbox"/>	01-Oct-2009	1.385330	
<input type="checkbox"/>	01-Nov-2009	1.384840	
<input type="checkbox"/>	01-Dec-2009	1.356270	
<input type="checkbox"/>	01-Feb-2010	1.362470	
<input type="checkbox"/>	11-Feb-2010	1.365840	
<input type="checkbox"/>	12-Feb-2010	1.363280	
<input type="checkbox"/>	13-Feb-2010	1.360510	
<input type="checkbox"/>	14-Feb-2010	1.359870	
<input type="checkbox"/>	15-Feb-2010	1.354930	
<input type="checkbox"/>	16-Feb-2010	1.360970	

You may also choose to view a specific range of effective dates by modifying the From Date, the To Date, or both dates within the Currency Rates container.

Currency Rates			
* Currency Selection			
From Currency *	US Dollar	To Currency *	Euro (European EMU)
Rate Type *	Floating Rate	Effective Date Range	
From Date	01-Mar-2010	To Date	11-Mar-2010
* Floating Currency Rates			
<input type="checkbox"/>	Effective Date	Euro (European EMU)	
<input type="checkbox"/>			
<input type="checkbox"/>	01-Mar-2010	1.367210	
<input type="checkbox"/>	02-Mar-2010	1.370240	
<input type="checkbox"/>	03-Mar-2010	1.369290	
<input type="checkbox"/>	04-Mar-2010	1.368420	
<input type="checkbox"/>	05-Mar-2010	1.367310	
<input type="checkbox"/>	07-Mar-2010	1.367290	
<input type="checkbox"/>	08-Mar-2010	1.367260	
<input type="checkbox"/>	09-Mar-2010	1.367280	
<input type="checkbox"/>	10-Mar-2010	1.367230	
<input type="checkbox"/>	11-Mar-2010	1.367230	

Calendar - Windows Intern...

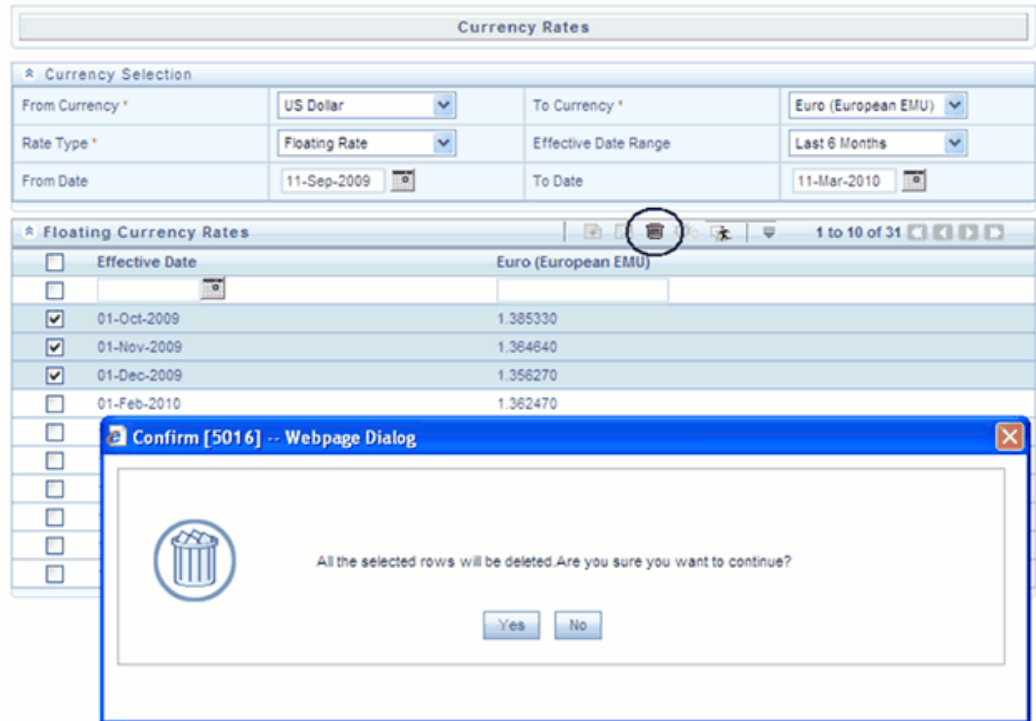
March 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Close

Deleting Exchange Rate Data

Clicking on one or more check boxes on the left hand side of any row of data enables the Delete control. After clicking on the Delete control, you will be asked to confirm that you wish to delete the rows you have selected.



Data Loader

The Data Loader Icon executes a function to import historical Currency rates for all defined Currencies. For more information on setting up the automated process, see *Oracle Financial Services Analytical Applications Data Model Utilities User Guide*.

To execute a data load, click on the Data Loader icon. A warning message will appear "Upload all available Currency Rates?"

Note: Upon clicking on the data loader icon, the loader will execute all currency rates.

Currency Rates			
* Currency Selection			
From Currency *	US Dollar	To Currency *	Euro (European EMI)
Rate Type *	Floating Rate	Effective Date Range	Last Month
From Date	11-Feb-2010	To Date	11-Mar-2010
* Floating Currency Rates			
<input type="checkbox"/>	Effective Date	Euro (European EMU)	
<input type="checkbox"/>			

Currency Exchange Rate Validation

Currency Rate Validation – Overview

Features:

Exchange Rate Validation contains the following features:

- Movement of historical fx rates to the Currency Direct Access table.
- Calculation of inverse fx rates for reporting currencies.
- Calculation of triangulated fx rates where possible.

Note: This feature is equivalent to the Rate Validation capability in OFSA 4.5 Rate Manager.

Exchange Rate Validation – Feature Description

The goal of exchange rate validation is to ensure that exchange rates from all active currencies to all reporting currencies are available for processing in OFSAA applications. Some of these rates may come from the validated direct input, others are calculated based on relationships with other rates. To support triangulation, all fixed exchange rates are available for all currencies that make up a conversion that needs to be triangulated. In addition, a direct exchange rate between each Child currency and each reporting currency is calculated and supplied to support quick access to exchange rates. If a Child currency is a reporting currency, then exchange rates are calculated for all currencies having an exchange relationship with the Parent currency.

Currency Rate Validation – Procedure

1. Load currency rates through the Rate Management UI or by using the Historical Rate Data Loader. Notice the initial status is "Not Yet Validated".
2. Create and Execute the Currency Rate Validation engine as a batch process.

Example

Navigate to: *Operations > Batch Maintenance > Create Batch*

- Component = "Transform Data"

- Rule Name = "Rate_Validation"

- Parameter List (Required) = FROM_DATE and TO_DATE, for example, '2011-01-01', '2011-01-31'

Note: If no dates are entered, then enter ('null','null') as the parameters. Parameter entry for rate validation is case sensitive and values are required. After completion of the batch process, notice the status in the UI changes to "Valid" or in case there is an issue, "Invalid".

3. View both input and calculated results in the FSI_EXCHNG_RATE_DIRECT_ACCESS table.
4. All of the OFSAA processing engines read from this table for sourcing historical exchange rates.

Note: Executing Rate Validation is a **required** step when multi-currency setup is enabled. All of the OFSAA EPM processing engines require exchange rates to be validated through this process in order to convert results from base currency to a selected reporting currency. If exchange rate validation is not run or required exchange rates are not available, the engines will use default exchange rates = 1.

Validating Exchange Rate Relationships

Users should run the exchange rate validation process after adding or modifying exchange rate data. You can run the process immediately or schedule one or more to be run in the future.

Each exchange rate is placed in one of the following statuses:

Status	Description
Not Yet Validated	The exchange rate has been input or loaded but not yet validated
Valid	The exchange rate has been validated.
Invalid	The exchange rate has violated one or more acceptance rules.

Only exchange rates in Valid status are available for processing and they are not subject to future validation unless you edit them.

The rate validation status is displayed in the Rate Management > Currency Rates UI.

Exchange Rate Validation Criteria

In the rate validation process all exchange rate relationships in the database are examined for compliance with the following criteria. Error messages and warnings are displayed if one or more criteria are not met. (See "Viewing the Messages", page 10-32 later in this chapter.)

1. If a currency is defined as a Child in a fixed exchange relationship then it must not be in any floating (standard) exchange rate relationship at the same time. Consequently all floating exchange rates to or from the Child currency must be defined through the Parent currency. If this criterion is not met then the following message is displayed : *Invalid fixed relationship – Child currency exists in a standard exchange rate within the same time period.*
2. A Child currency within a fixed relationship must not be a Child currency in any other fixed relationship during the same time period. If this criterion is not met then the following message is displayed : *Invalid fixed relationship – Child currency already exists in a fixed relationship for same time period.*
3. A circular relationship must not exist. In other words, a Child currency cannot link back to its Parent in any other fixed rate relationship within the same time period. If it does, then the following message is displayed : *Invalid fixed relationship creates circular relationship with other fixed exchange rates.*
4. Regarding new floating (standard) exchange rates, From and To currencies must not exist as Child currencies within any fixed exchange rate relationships. If this criterion is not met then the following message is displayed : *From/To/Both currency(ies) in new exchange rate already exist in a fixed relationship for the same time period.*
5. If any exchange rate is equal to 0, then a warning message is displayed. Generally

speaking, 0 is a valid value. You can use it, for example, to designate an exchange rate with a currency of a country that no longer exists.

If two exchange rate relationships fail to meet these criteria then both of them will be labeled Invalid. (Exception: if one of the relationships is already in Valid status, then the other one will be labeled Invalid.) For example, if a currency is defined as a Child in a fixed rate relationship and is also defined as being in a floating relationship at the same time, then both fixed and floating rates for that currency will be labeled Invalid.

If there are both direct and inverse floating exchange rates defined for any two currencies (in other words, one currency is both a To and a From currency in relation to the other), then both relationships will be marked Valid.

Running an Exchange Rate Validation

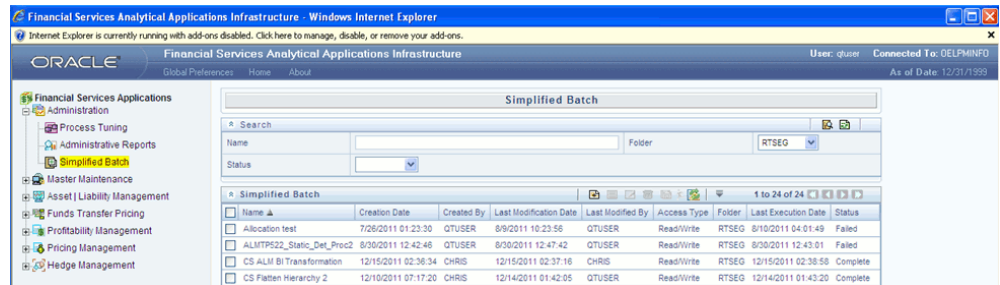
You can run a validation immediately or schedule one or more for later. The validation status shown is as per the user input in the Rate Management > Currency Rates UI.

Running a Validation Immediately

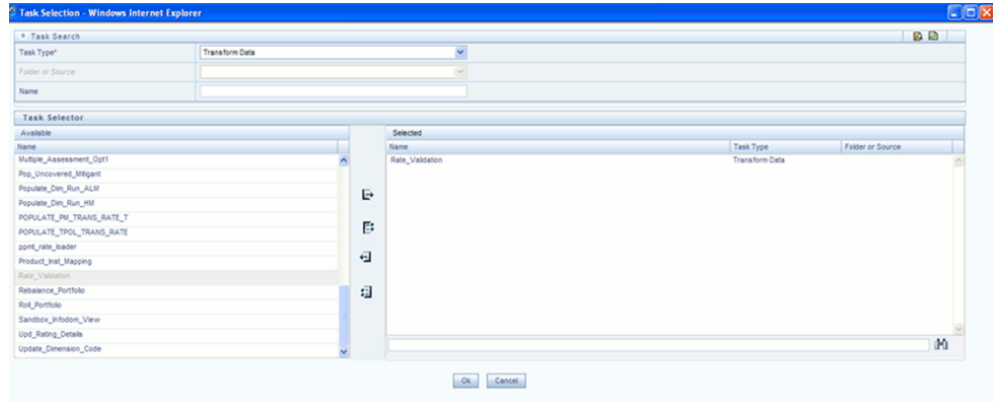
You can execute rate validation using a Simplified Batch process or from the ICC Batch Screen, within the OFSAAI framework.

To run the validation using Simplified Batch, perform the following steps:

1. Click Administration -> Simplified Batch -> Add.



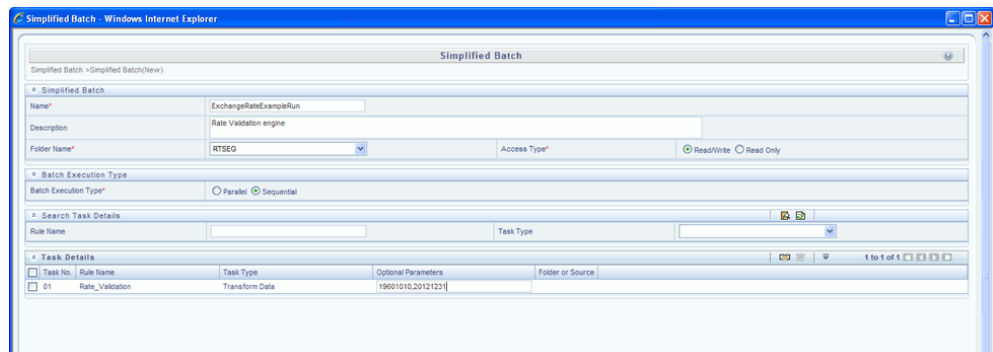
2. From the Task Details block, click Select Task. In the Task Selection window, choose Task Type as Transform Data. Then, click Search. In the Task Selector, Scroll down the left shuttle box (Available tasks) and select Rate_Validation (move to right shuttle box), then click **Ok**.



3. Back in the Simplified Batch definition window, enter the optional parameters to specify the From and To dates, using the format 'YYYYMMDD','YYYYMMDD'.

Note: If no dates are entered, then enter 'null','null' as the parameters. This is case sensitive.

Then click **Save**.



4. In the Simplified Batch summary page, search for and select your batch, then click Run.
5. Click Yes to confirm you want to continue, enter a date and click **Ok** to continue.
6. You will receive a message that it has been successfully launched.
7. Click **Ok**. When the batch is complete, optionally navigate to Operations -> View Log to view the processing log.

Any error messages or warnings are displayed in View Log. (See "Viewing the Messages", page 10-32)

Note: Simplified Batch does not yet provide access to logs for Transform Data tasks.

To run the validation using the ICC Batch Framework, perform the following steps:

1. Navigate to Operations -> Batch Maintenance -> Add, and create a new batch.
2. Search for the above batch, and select it.
3. In the Task Details block (toolbar), click Add. In the Task Selection window, choose Task Type as Transform Data. Then, click Search. In the Task Selector, Scroll down the left shuttle box (Available tasks) and select Rate_Validation (move to right shuttle box), then click **Ok**.
4. Back in the Task definition window, select the Rule Name Rate_Validation and enter the optional parameters to specify the From and To dates, using the format 'YYYYMMDD','YYYYMMDD'.

Note: If no dates are entered, then enter 'null','null' as the parameters. This is case sensitive.

Then click **Save**.

5. Navigate to Operations -> Batch Execution search for and select your batch, enter Information Date, then click **Execute Batch**.
6. Click **Ok** to confirm you want to continue.
7. A message is displayed stating Batch triggered successfully, also displaying the Batch Run ID.
8. Click **Ok**.
9. To view rates, query the database table FSI_EXCHNG_RATE_DIRECT_ACCESS after the run is complete.

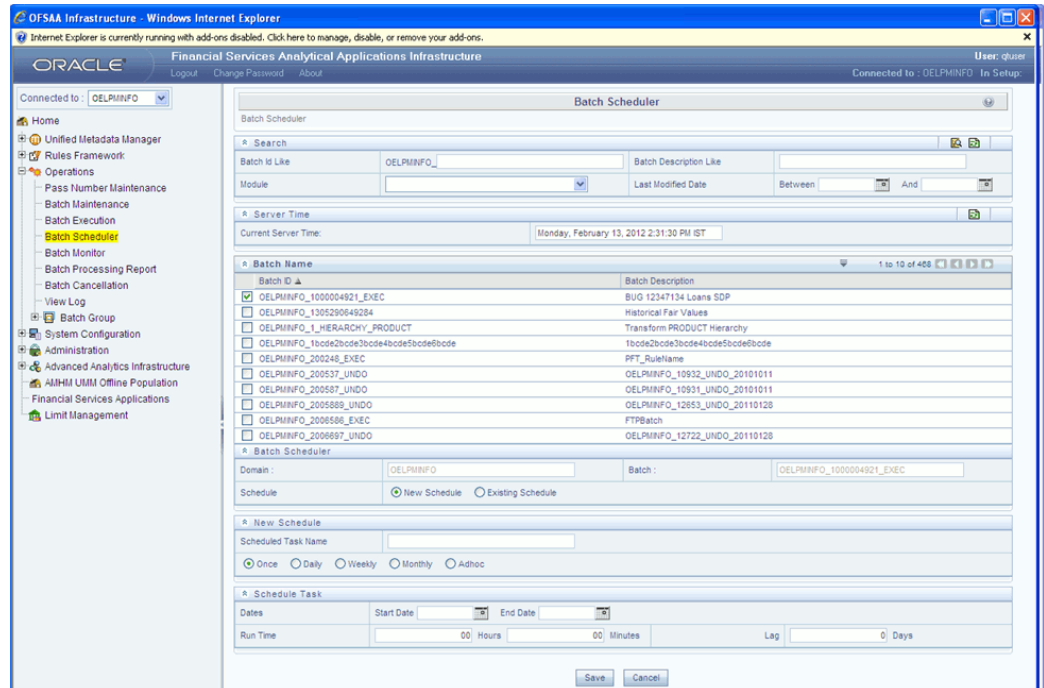
FSI_EXCHNG_RATE_DIRECT_ACCESS: This output table holds the valid currency codes and their exchange rate with respect to the reporting currency for a period of time say "from date" value to optional "to date" value. When Exchange Rate Validation runs, if data already exists for the selected date range, the Rate Validation package will overwrite the existing values. If no dates are given, ('null','null'), the Rate Validation package truncates this table and re-loads data for the entire historical date range. The following describes the structure of the FSI_EXCHNG_RATE_DIRECT_ACCESS table:

Column Name	Nullable	Data Type
FROM_CURRENCY_CD	Not Null	varchar2(15)
TO_CURRENCY_CD	Not Null	varchar2(15)
EFFECTIVE_FROM_DATE	Not Null	Date
EFFECTIVE_TO_DATE	Not Null	Date
EXCHANGE_RATE	Not Null	Number(15,9)
EXCHANGE_RATE_CONV ERT_TYPE_CD	Not Null	Number(5)
EXCHANGE_RATE_CONV _FORMULA	Not Null	Number(15)

- When the batch is complete, optionally navigate to Operations -> View Log to view the processing log.

Any error messages or warnings are displayed in View Log. (See "Viewing the Messages", page 10-32)

Scheduling One or More Validations



To schedule a future validation, or to schedule validations on a recurring basis, do the following:

1. Navigate to Operations -> Batch Scheduler.
The Batch Scheduler window appears.
2. In the Batch Name block, Select the Scheduled Batch ID.
An unchecked box means that no validation is scheduled to run.
3. Select New Schedule or Existing Schedule:
Existing Schedule can be selected only if there are existing schedule batches to view.
If New Schedule is selected, the New Schedule grid appears. Enter the Scheduled task name.
_ To run the validation once, select once. Go to Step 5, page 10-31.
_ To schedule the validation on a recurring basis, select Daily, Weekly, Monthly or Adhoc.
4. In the Schedule Task grid, in the Date field, enter the start date and end date.
5. In the Run Time field, input the time for the next validation to be run.
6. Click **Save** to set the schedule as specified or **Cancel** to drop your changes.

Any error messages or warnings generated during the validation process are displayed in the View Log. (See "Viewing the Messages", page 10-32)

7. To exit the Scheduler, click its exit icon (X).

Viewing the Messages

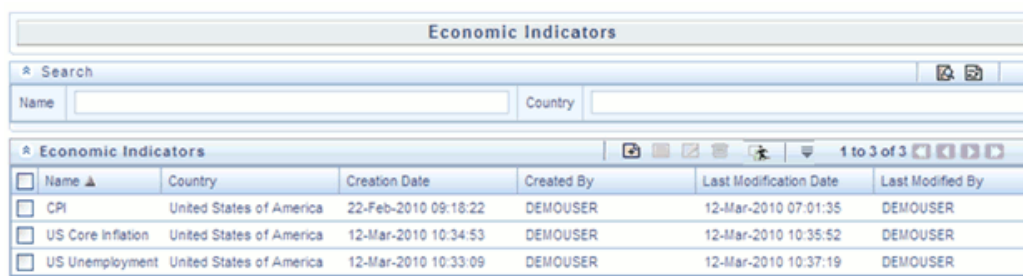
Any error messages or warnings generated during the exchange rate validation process are displayed in the Log Information window. To access this window: Click Operations -> View Log.

To exit the window, click its Exit icon (X).

These exception messages could also be seen in FSI_MESSAGES_LOG table with the help of the batch_id which was used during execution.

Economic Indicators Summary Screen

When you first navigate to Master Maintenance > Rate Management > Economic Indicators, an empty screen will be displayed. After you have constructed one or more Economic Indicators, navigating to Master Maintenance > Rate Management > Economic Indicators will display a summary screen showing each of the Economic Indicators that you have previously built.



Economic Indicators					
* Search					
Name	Country				
* Economic Indicators					
<input type="checkbox"/> Name	Country	Creation Date	Created By	Last Modification Date	Last Modified By
<input type="checkbox"/> CPI	United States of America	22-Feb-2010 09:18:22	DEMOUSER	12-Mar-2010 07:01:35	DEMOUSER
<input type="checkbox"/> US Core Inflation	United States of America	12-Mar-2010 10:34:53	DEMOUSER	12-Mar-2010 10:35:52	DEMOUSER
<input type="checkbox"/> US Unemployment	United States of America	12-Mar-2010 10:33:09	DEMOUSER	12-Mar-2010 10:37:19	DEMOUSER

Search Container

A Search container is provided in which you may search for Economic Indicators by Name or by Country. Each Economic Indicators rule is specific to one country.

Search Control

Enter your desired search criteria and click on the Search control.

Reset Control

Clicking on the Reset control removes any Name or Country constraint you may have specified and refreshes the screen.

Economic Indicators Container

The Economic Indicators container presents a grid containing all of the Economic Indicators that meet your search criteria. The Economic Indicators summary grid offers several controls that allow you to perform different functions when an Economic Indicators is selected.

To select an Economic Indicators, click on a check box in the first column of the grid. More than one Economic Indicators can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the row.

You may select or deselect all of the Economic Indicators in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add

Clicking on the Add control begins the process of building a new Economic Indicator. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of an Economic Indicator on a read-only basis. The View control is only enabled when a row has been selected.

Edit

Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Economic Indicator. The Edit control is only enabled when a single row has been selected.

Delete

Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Economic Indicators you have selected.

Data Loader

The Data Loader Icon executes a function to import historical economic indices for all defined Economic Indicators. For more information on setting up the automated process, see *Oracle Financial Services Analytical Applications Data Model Utilities User Guide*.

To execute a data load, click on the Data Loader icon. A warning message will appear "Upload all available Economic Indicators?" Click ok, and all historical indices will be loaded.

Economic Indicators Summary Grid

The following columns categorize each Economic Indicator in the summary grid:

- Name
- Country
- Creation Date
- Created By
- Last Modification Date
- Last Modified By

Name

Displays the Economic Indicator's short name. Performing a "mouse-over" on a row within the grid displays the Economic Indicator's detailed description.

Country

Displays the Country to which an Economic Indicator applies.

Creation Date

Displays the date and time at which an Economic Indicator was created.

Created By

Displays the name of the user who created an Economic Indicator.

Last Modification Date

Displays the date and time at which an Economic Indicator was last modified.

Modified By

Displays the name of the user who last modified an Economic Indicator.

Economic Indicators Detail Screen

When you Add, Edit, or View an Economic Indicator, the Economic Indicator Detail Screen is displayed. The Economic Indicator detail screen is comprised of an Economic Indicator Details container, an Economic Indicators – Historical Data Container, and an Audit Trail container.

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Economic Indicator Details Container

When creating a new Economic Indicator, you must supply a Name, a Frequency, a Value Type, and a Country. You may optionally provide a Description.



The screenshot shows a web form titled "Economic Indicator" with a sub-section "Economic Indicator Details". The form contains the following fields:

Name *	<input type="text"/>		
Description	<input type="text"/>		
Frequency *	Monthly ▾	Value Type *	Numeric ▾
Country *	United States of America ▾		

Name

The name you give to your Economic Indicator is the means by which you will subsequently refer to your rule within other OFS Analytical Applications. You may not rename existing Economic Indicators.

Frequency

The frequency of your Economic Indicator should match the frequency which with the indicator's data is made public. Unemployment statistics, for example, are generally released on a monthly frequency. Select a frequency from the Frequency drop-down list box. Available frequencies are Weekly, Monthly, Quarterly, Semi-Annually, and Annually.

Value Type

Select a Value Type from the Value Type drop-down list box. Available Value Types are Numeric, Percentage, and Amount.

Country

Select a country to which your Economic Indicator applies from the Country drop-down list box. The value set of Countries is drawn from the seeded Country dimension. OFSAA is seeded with over 70 country values, and you may also add your own user-defined countries (see Chapter 6: OFSAA Dimension Members).

Economic Indicators – Historical Data Container

Once you have made your selections in the Economic Indicator Details container, you may save your new rule. To build out your historical data, you must enter data within

the Economic Indicators – Historical Data container.

	Start Date	End Date	Value
<input type="checkbox"/>			0.000000
<input type="checkbox"/>			

The Economic Indicators – Historical Data container initially displays a single blank row followed by the most recent period's data (if data has previously been stored in the database).

Start Date & End Date

Select the calendar control immediately adjacent to the End Date to choose an ending date for your Economic Indicator data point. The application will automatically populate the Start Date based on your Economic Indicator's frequency. For example, if your Economic Indicator is an unemployment statistic that has a monthly frequency, select an end date that is the last day of the month that the unemployment rate describes. In this example, the application will automatically populate the Start Date with the first day of the month you have chosen.

Value

Enter the value for your Economic Indicator (e.g., the unemployment rate).

Adding Multiple Data Points

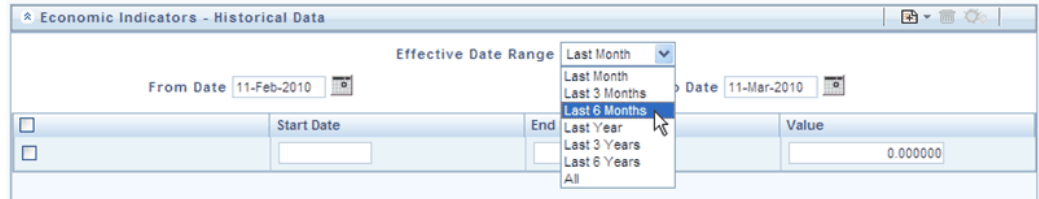
Click on the Add control to add additional blank rows into which you may enter additional Economic Indicator data. When you have finished adding data, click on the Save control.

Editing Economic Indicators – Historical Data

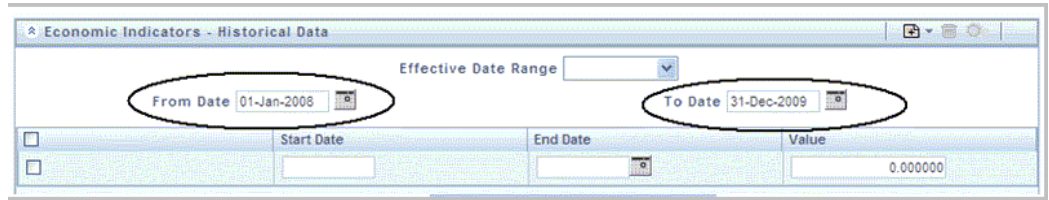
Clicking on a single check box on the left hand side of any row of data enables the Edit control. After clicking on the Edit control, the row you have selected becomes active. You may edit this row and subsequently save your changes.

Viewing Economic Indicators – Historical Data

By default, the Economic Indicators – Historical Data container displays the most recent month of historical data. You can control the amount of data displayed by selecting a different value from the Effective Date Range drop-down list box.



You may also choose to view a specific date range by modifying the From Date, the To Date, or both dates within the Economic Indicators – Historical Data container.



Deleting Economic Indicators – Historical Data

Clicking on one or more check boxes on the left hand side of any row of data enables the Delete control. After clicking on the Delete control, you will be asked to confirm that you wish to delete the rows you have selected.

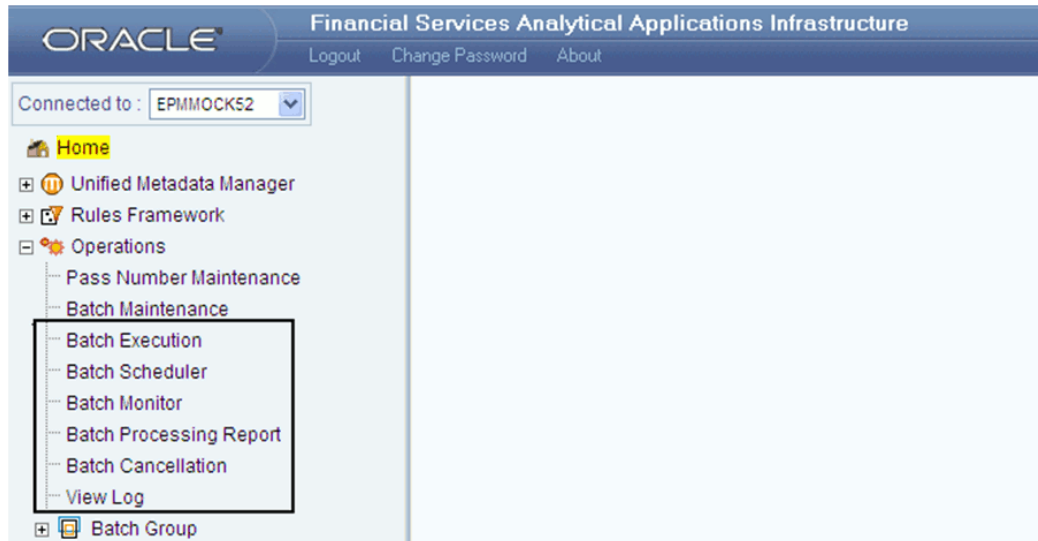
Simplified Batches

Overview of Simplified Batches

New in release 5.5 of the EPM applications, Simplified Batches provide a streamlined version of the functionality available in the broader standard Oracle Financial Services Analytical Applications (OFSAA) Infrastructure batch module (Financial Services Analytical Applications Infrastructure > Operations). The Simplified Batch feature is designed to facilitate creation, maintenance, and execution of batches for the EPM application engines and various other OFSAA components. Users will find its drag-and-drop approach to task selection especially helpful in the management of large batches.

Standard OFSAA Infrastructure Batching Functionality

You may view, execute, schedule, and monitor Simplified Batches within the broader OFSAA Infrastructure Operations batching framework. However, Simplified Batches may be built and maintained only through summary and detail screens with Financial Services Applications > Administration > Simplified Batch user interfaces.



Batch Maintenance

You may view Simplified Batches here, but they will be noneditable. You can create and modify them within the Simplified Batch screens, described later in this chapter.

Batch Execution

Simplified Batches may be executed either from the Simplified Batch summary screen (see details as follows) or from OFSAA Infrastructure > Operations > Batch Execution.

Other Operations Batch Functionality

Other Operations batch functionality including Batch Scheduler, Batch Monitor, Batch Processing Report, Batch Cancellation, and View Log apply equally to Simplified Batches and to batches that have been built under OFSAA Infrastructure > Operations > Batch Maintenance.

The remainder of this chapter describes the creation, maintenance and execution of Simplified Batches. Specifically, this chapter will cover:

- Simplified Batch Summary and Detail Screens
- Navigation within the Simplified Batch Summary Screen
- Navigation within the Simplified Batch Detail Screen
- Task Selection
- Running a Simplified Batch
- Viewing the Task Logs of a Simplified Batch

- Additional Batch Options

Summary and Detail Screens

When you initially navigate to Financial Services Applications > Administration > Simplified Batch, it displays a summary screen listing any existing Simplified Batch rules. Using search criteria, you can control the set of batches that are displayed.

When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

The Simplified Batch summary screen presents two containers: a Search container and Simplified Batch container (the summary grid). When you first navigate to the Simplified Batch summary screen, the batches stored within your preferred Folder are presented in a summary grid. Your **preferred** Folder is determined by the set of Application Preferences that were last saved in which you selected the **Active for Master Maintenance** checkbox.

Search Container

The Search container allows you to restrict the batches visible within the summary grid by any combination of Name, Folder, or Status. Searches by Name are wildcard searches, that is, searching for Name like *pricing* will find all batches that include *pricing* within their names.

Search Control

Enter your desired search criteria and click the **Search** control.

Reset Control

Click the **Reset** control to clear any search criteria you may be using and refresh the Simplified Batch summary grid.

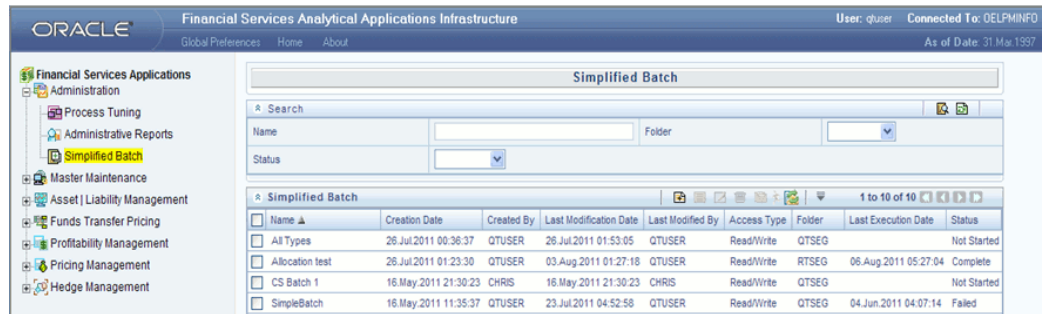
Simplified Batch Container

The Simplified Batch container presents a grid containing all of the batches that meet your search criteria. The Simplified Batch summary grid offers several controls that allow you to create a new batch or perform different functions when a batch is selected.

To select a batch rule, click a checkbox in the first column of the grid. More than one batch can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time deselects the batch. You may select or deselect all of the batches in the summary grid by clicking on the checkbox in the upper left hand corner of the summary grid directly to the left of the Name column header.

You can sort on any column in the summary grid by clicking on the column header (the

column name).



Add

Clicking on the **Add** control begins the process of building a new Simplified Batch. The Add control is disabled if any rows in the grid have been selected.

View

Selecting a single row in the grid enables the **View** control. Clicking on the View control allows you to view the detailed definition of a Simplified Batch on a read-only basis. The View control is only enabled when a single batch has been selected.

Edit

Selecting a single row in the grid enables the Edit control. Clicking on the **Edit** control allows you to modify an existing Simplified Batch. The Edit control is only enabled when a single batch has been selected.

Delete

Selecting one or more rows in the grid enables the Delete control. Clicking on the **Delete** control deletes the batch or batches you have selected.

Copy

Selecting a single row in the grid enables the Copy control. Clicking on the **Copy** control allows you to create a copy of an existing Simplified Batch. The Copy control is only enabled when a single Simplified Batch has been selected. You can also duplicate a batch using the Save As option from the detail page, as described later in this chapter.

Run

Selecting a single row in the grid enables the Run control. Clicking on the **Run** control executes the selected Simplified Batch rule. The Run control is only enabled when a single Simplified Batch rule has been selected. The As-of-Date and other parameters applicable to each task within a Simplified Batch will vary by task type (for details, see the section on As of Dates and Additional Parameters, page 11-9 later in this chapter).

Refresh

Click the **Refresh** control to refresh the Simplified Batch summary grid, including updates to the Last Execution Date and Status.

Simplified Batch Summary Grid

The following columns categorize each Simplified Batch in the summary grid:

- Name
- Creation Date
- Created By
- Last Modification Date
- Last Modified By
- Access Type
- Folder
- Last Execution Date
- Status

Name

Displays the Simplified Batch rule's short name. Performing a **mouse-over** on a batch name displays the rule's system identifier, long name, and description. Note that the rule's long name consists of a concatenation of the Information Domain (InfoDom) and the rule's short name. This long name is the name under which the batch is submitted internally through Oracle Financial Services Analytical Applications (OFSAA) Infrastructure.

Creation Date

Displays the date and time at which a Simplified Batch rule was created.

Created By

Displays the name of the user who created a Simplified Batch rule.

Last Modification Date

Displays the date and time at which a Simplified Batch rule was last modified.

Last Modified By

Displays the name of the user who last modified a Simplified Batch rule.

Access Type

Displays the **Read/Write** or **Read Only** property of a Simplified Batch rule. If a rule is set to Read Only, then only the creator of that rule may modify or delete the rule.

Folder

Displays the name of the Folder in which a Simplified Batch rule is stored.

Last Execution Date

Displays the date and time at which a Simplified Batch was last executed.

Status

Displays the latest status for a batch rule and includes the following possible values:

- Complete
- Failed
- New
- Ongoing

Navigation within the Detail Screen

When you Add, Edit, or View a batch, the Simplified Batch Detail Screen is displayed. The detail screen presents five containers for defining and maintaining your batch:

- Simplified Batch - header level information such as Rule Name, and so on
- Batch Execution Type - Sequential vs. Parallel
- Search Task Details - Search container
- Task Details - Task Details grid
- Audit Trail

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

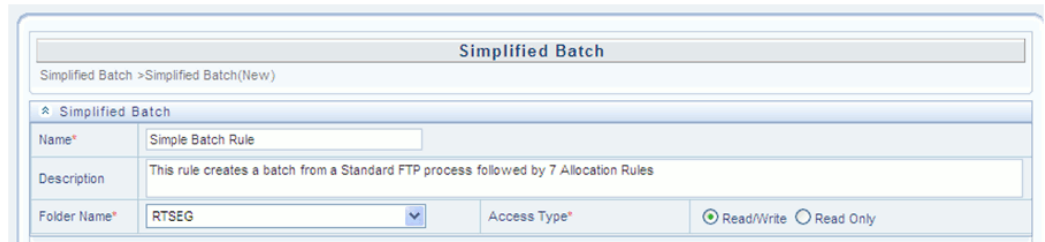
The detail page also provides action buttons specific to the mode you are using (Add, Edit, or View). In View mode, you can duplicate the rule using the Save As button. This will allow you to specify the basic identifiers for the new rule, for example, Name, Description, Folder, and the Access Type selection.

Simplified Batch Container

Specify the Simplified Batch Name and Description, select a Folder in which the batch is to be stored, and specify whether you want the batch rule to be **Read/Write** or **Read Only** (Access Type). Naming your batch is required before it can be saved.

Note:

- Unlike other OFSAA rules, you cannot edit the Name after you have created the rule.
- The maximum length for the Name is based on len (name+infodomain), subject to the total length not exceeding 42 characters.
- The maximum length for the Description is 300 characters.

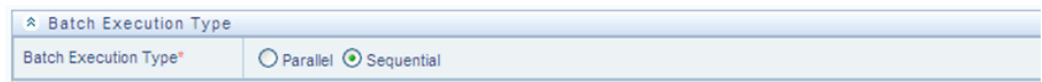


The screenshot shows a web-based configuration form for a 'Simplified Batch'. The form is titled 'Simplified Batch' and has a breadcrumb trail 'Simplified Batch > Simplified Batch(New)'. Below the title, there is a section for 'Simplified Batch' with the following fields:

Name*	Simple Batch Rule		
Description	This rule creates a batch from a Standard FTP process followed by 7 Allocation Rules		
Folder Name*	RTSEG	Access Type*	<input checked="" type="radio"/> Read/Write <input type="radio"/> Read Only

Batch Execution Type Container

Select whether you want the tasks in your batch to run in Parallel or to run Sequentially. Should you wish to run some tasks sequentially and some in parallel, you must utilize the OFSAA Infrastructure Operations batching framework to construct your batch. The Simplified batching framework provides a simpler and faster pathway to specify many of the batches that you will require, but the Infrastructure Operations framework offers you more flexibility.



The screenshot shows a web-based configuration form for 'Batch Execution Type'. The form is titled 'Batch Execution Type' and has a section for 'Batch Execution Type*' with two radio buttons:

Parallel Sequential

Search Container

You may sometimes construct batches containing dozens or even hundreds of tasks. In such cases it may become difficult to isolate a specific task. The Search container allows you to **focus** the Task Details display to a specific task name or task type. The Rule Name search is a wildcard search. Click the **Search** control to execute a search. Click the

Refresh control to remove your search criteria and refresh the Task Details Container to display all tasks within the batch.

Task Details Container

For a new batch rule, the Task Details container will initially be empty. Through the use of the Task Selector described below, you will populate the Task Details container with the processes that you wish to run in your batch. Following is a sample batch that begins with an ALM (Asset Liability Management) Dynamic Deterministic Process that is followed by Profitability Management, FTP, HM, and Data Transformation tasks. For a Sequential batch, the Task Details container presents the tasks in the order in which they will be run. For a Parallel batch, all tasks will be initiated in parallel.

Task No.	Rule Name	Task Type	Optional Parameters	Folder or Source
<input type="checkbox"/>	01	DYNA	ALM Dynamic Deterministic	QTSEG
<input type="checkbox"/>	02	dd	ALM Dynamic Stochastic	QTSEG
<input type="checkbox"/>	03	HM Test2	ALM Static Deterministic	QTSEG
<input type="checkbox"/>	04	pp	ALM Static Stochastic	QTSEG
<input type="checkbox"/>	05	12873610_FIELD_RULE_Testing	Allocation Rule	QTSEG
<input type="checkbox"/>	06	01 Cash Flow Edit	Cash Flow Edits	QTSEG
<input type="checkbox"/>	07	T2T_ANNUNITY_CONTRACTS	Extract Data	STAGING_SOURCE_T2T
<input type="checkbox"/>	08	01 Transfer Price Process	FTP Standard Process	QTSEG
<input type="checkbox"/>	09	ASE	FTP Stochastic Process	QTSEG
<input type="checkbox"/>	10	HM Test3	HM Valuation Process	QTSEG
<input type="checkbox"/>	11	Batch_Hier_Load	Transform Data	

Task Number

Each task is itemized serially by task number.

Rule Name

Displays the task's short name, such as an Allocation rule name. The complete or **long name** under which the task is submitted for execution (becoming the task's Batch Run ID) is a concatenation of several identifiers, as noted below in the View Log section.

Task Type

Using Simplified Batches you may submit different tasks for each of the EPM application engines and various other components. The task types you may submit within a Simplified Batch include:

- ALM Dynamic Deterministic
- ALM Dynamic Stochastic
- ALM Static Deterministic
- ALM Static Stochastic

- Allocation Rule
- Cash Flow Edits
- Extract Data
- FTP Standard Process
- FTP Stochastic Process
- HM Valuation Process
- Transform Data

The screenshot shows a window titled "Search Task Details" with a search bar and a "Task Type" dropdown. Below is a table of tasks with a dropdown menu open over it.

Task No.	Rule Name	Task Type	Optional Parameters	Folder or Source
<input type="checkbox"/>	01	DYNA	ALM Dynamic Deterministic	QTSEG
<input type="checkbox"/>	02	dd	ALM Dynamic Stochastic	QTSEG
<input type="checkbox"/>	03	HM Test2	ALM Static Deterministic	QTSEG
<input type="checkbox"/>	04	pp	ALM Static Stochastic	QTSEG
<input type="checkbox"/>	05	12873610_FIELD_RULE_Testing	Allocation Rule	QTSEG
<input type="checkbox"/>	06	01 Cash Flow Edit	Cash Flow Edits	QTSEG
<input type="checkbox"/>	07	TZT_ANNUITY_CONTRACTS	Extract Data	STAGING_SOURCE_TZT
<input type="checkbox"/>	08	01 Transfer Price Process	FTP Standard Process	QTSEG
<input type="checkbox"/>	09	ASE	FTP Stochastic Process	QTSEG
<input type="checkbox"/>	10	HM Test3	HM Valuation Process	QTSEG
<input type="checkbox"/>	11	Batch_Hier_Load	Transform Data	

The dropdown menu is open, showing a list of task types: ALM Dynamic Deterministic, ALM Dynamic Stochastic, ALM Static Deterministic, ALM Static Stochastic, Allocation Rule, Cash Flow Edits, Extract Data, FTP Standard Process, FTP Stochastic Process, HM Valuation Process, and Transform Data.

As of Dates and Additional Parameters

The As-of-Date applicable to each task within a Simplified Batch will vary by task type. Some task types also accept runtime parameters.

- ALM (Asset | Liability Management) tasks utilize the As-of-Date from the ALM Application Preferences of the user running the batch.
- FTP (Funds Transfer Pricing) tasks utilize the As-of-Date from the FTP Application Preferences of the user running the batch.
- HM (Hedge Management) tasks utilize the As-of-Date from the HM Application Preferences of the user running the batch.
- Allocation rule tasks utilize the As-of-Date from the Profitability Management Application Preferences of the user running the batch. At the individual Allocation rule level, however, you may override the Application Preferences As-of-Date through the use of optional parameters.
- Cash Flow Edits tasks utilize the As-of-Date from the preferences that are applicable to Master Maintenance (that is, the Application Preferences which were last saved after having checked the **Active for Master Maintenance** checkbox).
- Extract tasks do not use additional parameters.

- Transform tasks - Parameter List is the list of parameters defined in Data Transformation or Data Quality check. The parameters must be in the same order as in the definition and must be separated by a comma.

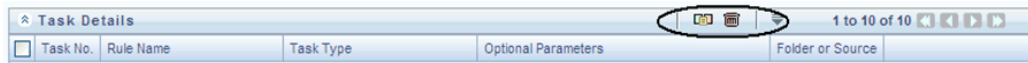
Folder or Source

For Extract Data tasks, values in this column represent Sources. For Transform Data tasks, this column is not applicable and is left blank. For all other task types, values in this column represent the Folder in which a rule is stored.

Task Selection

Controls on the Task Details Container

The Task Details container provides a Task Selector control that invokes a pop-up screen to support the maintenance of tasks in your batch. The Task Details container also provides a Delete control for removing tasks from your batch.



Delete

Selecting one or more rows out of the Task Details grid enables the Delete control. Clicking on the **Delete** control deletes the task or tasks that you have selected. You can also remove tasks through the Task Selection pop-up screen.

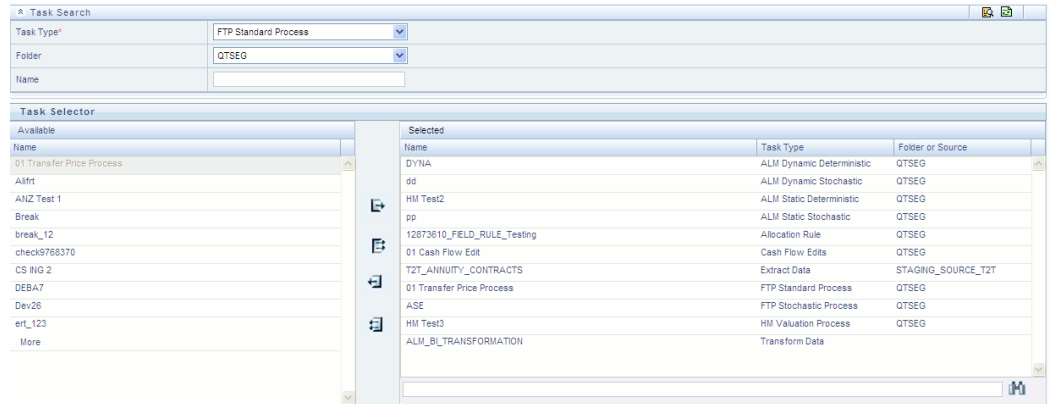
Task Selector

The Task Selector control is always enabled. Clicking on the **Task Selector** invokes the Task Selection pop-up screen.

Navigation within the Task Selection screen

Use the Task Selection screen to:

- Choose tasks to include in your batch
- Remove tasks from your batch
- Re-order tasks within your batch



Task Search Container

When you initially invoke the Task Selection screen, the list of **Available** tasks on the left-hand side of the Task Selector container is blank. To populate the list of available tasks, you must execute a search using the Search control. Prior to clicking on the Search control, you must select a specific type of task from the Task Type list box, and optionally specify search criteria for Folder (or Source) and Name, where applicable to the task type.

Selecting Task Types

The available task types include:

- ALM Dynamic Deterministic
- ALM Dynamic Stochastic
- ALM Static Deterministic
- ALM Static Stochastic
- Allocation Rule
- Cash Flow Edits
- Extract Data
- FTP Standard Process
- FTP Stochastic Process
- HM Valuation Process
- Transform Data

Source or Folder

- Extract Data Task

When you choose the Extract Data task, you must select a data source prior to executing your search.

Task Search	
Task Type*	Extract Data
Source *	PRICING_PRC
Name	
Task Selector	
Available	PRICING_PRC MOCKIFRS_STG PRICING_SRC MOCK_STAGE mock_PRC PRICING_STG

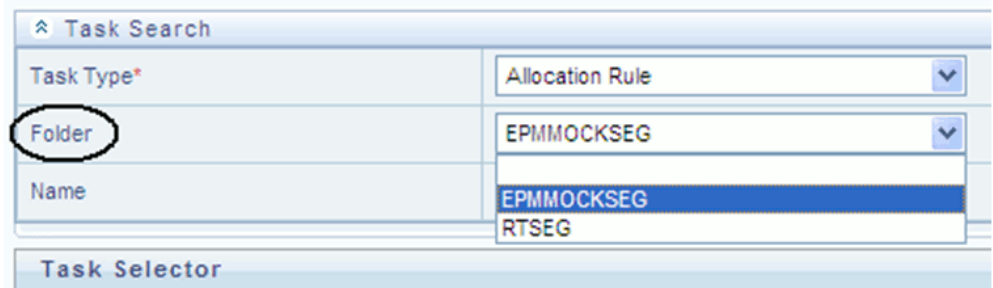
- Transform Data Task

When you choose the Transform Data task, it is not necessary for you to select either a Folder or a Source prior to executing your search.

Task Search	
Task Type*	Transform Data
Folder or Source	
Name	

- All Other Task Types

When you select any other Task Type, you may constrain your search to a particular folder. Alternatively, you may search for your tasks in all Folders by selecting **blank** (all folders).



Executing a search for tasks always refreshes the Available list of tasks, but never has any impact on tasks that you have already selected (tasks on the right-hand side of the screen entitled **Selected**).

Name

You may further refine your search by entering a task Name. Searches by Name are wildcard searches, that is, searching for Name like *rate* will find all tasks that include *rate* within their Name.

Task Selector Container

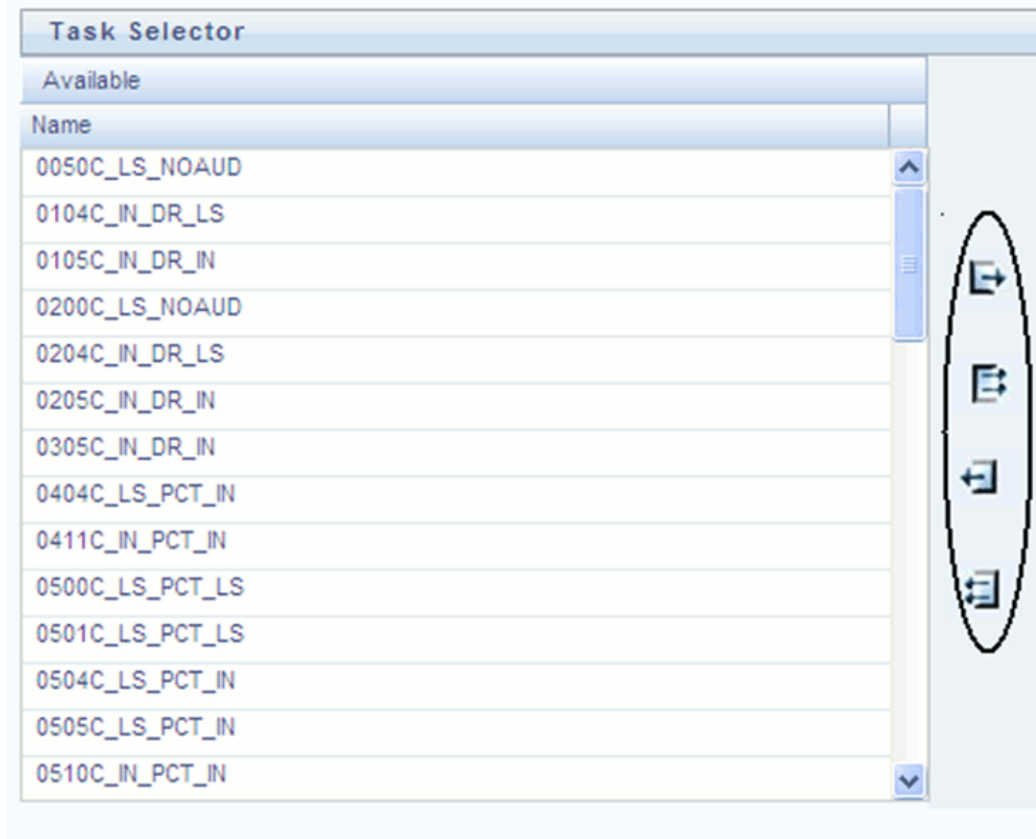
Navigating the list of Available tasks

For task types with potentially large volumes of tasks, the Available list is divided into pages. Use the vertical scrollbar to navigate to the bottom of each page, then click **more** to display the names in the next page. To navigate back a page, scroll to the top of the page and click the hyperlink to return to the Previous page. You can control the number of tasks listed per page by changing the setting in `SIMPLE_BATCH_PAGE_SIZE` parameter in `FusionApps.properties` file in `WEB-INF/props` under context root. The recommended default value is 50 records/page. As you increase the value over a certain amount, you will start to see a slower response in the UI.

Moving tasks between the Available and Selected lists

You may use the Select or Select All shuttle controls to move rules from the displayed page of the Available list to the Selected list or vice versa. The Select control moves rules from the left to the right, adding rules from the Available list to the bottom of the Selected list. Moving rules from the right to the left removes rules from the Selected list. You can also use the drag-and-drop feature (described as follows) to place the rules in a specific position in the Selected list to specify execution order for a Sequential type batch.

On both the Available side and the Selected side, you may highlight multiple tasks. To select a range of tasks, click on the first task, hold down the Shift key, and then click on the last task. To select a non-sequential list of tasks, you may select them individually while holding down the Control key.



Tasks within the Available list of tasks are disabled (greyed-out) once they have been selected (that is, included within the Selected list of tasks).

Drag and Drop Operations

The Task Selector also supports drag and drop operations for choosing Available tasks, removing Selected tasks, or rearranging the sequence of your Selected tasks.

- You may click on an Available task and then drag and drop it anywhere within the Selected list, where the targeted placement is displayed in red line.
- Dragging a task from the Selected list and dropping it into the Available list removes that task from the Selected list.
- To select or deselect a range of tasks, click first task in the range to be selected, hold the Shift key down, click last task in the range to be selected, and then drag and drop your set of tasks.
- To select or deselect a set of tasks which are not in sequence, click each task individually while holding down the Control key; after clicking on the last task you may drag and drop the set of tasks.

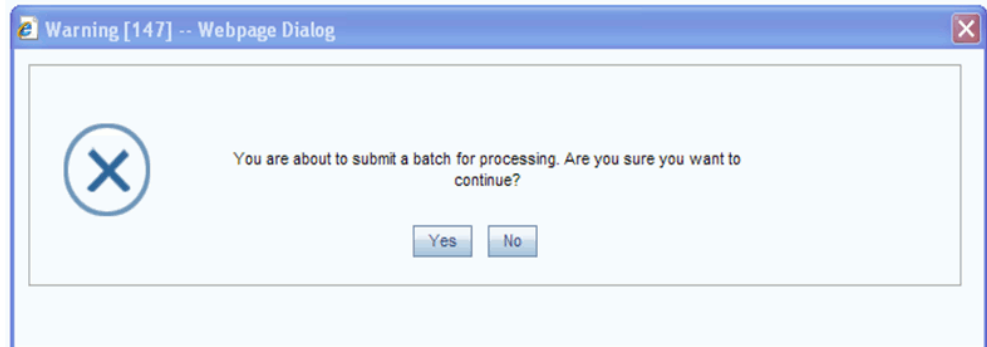
Finding a Selected Task

To search for any of your selected tasks, enter the task name or partial name in the field under the Selected list, then click the **adjacent** button to find each successive match.

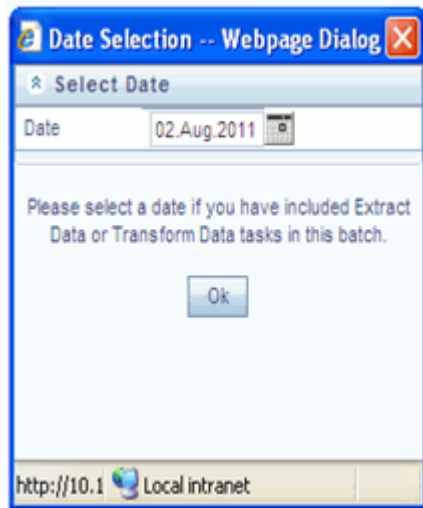
Running a Simplified Batch

To run a Simplified Batch from the Simplified Batch summary page, complete the following steps:

1. Select a Simplified Batch from the summary grid.
2. Click **Run** to execute the batch.
3. A popup window will appear asking for confirmation before proceeding. Click **Yes** to proceed, or **No** to return to the summary page.



4. If you clicked **Yes** to proceed, you will see a Date Selection popup. If you have included any Extract Data or Transformation Data tasks in your batch, select the appropriate date for use in processing (it will ignore this date for all other task types). The date defaults to the system date. If you wish to change the date, you can either directly enter a date in the format displayed, or you can use the Calendar tool to select a date.



5. Click **Ok** to proceed.
6. You will now see a message indicating the batch has been launched. Click **Ok** to proceed.



7. You can monitor the status from the summary grid or detail page.
 1. To monitor from the summary grid, click **Refresh**. The summary grid will update the Last Execution Date with the current date and the Status at completion (for example, **Complete**, or **Failed** if there was a critical problem).
 2. To monitor from the detail page, please refer to the section on Viewing the Task Logs.

Note: This currently applies to all task types except Extract Data and Transform Data.

Viewing the Task Logs

Note: This currently applies to all task types except Extract Data and Transform Data.

To view the processing log for each task in your batch, you can navigate to the log from the Simplified Batch detail page:

1. Select your batch from the summary grid.
2. Click **View** to navigate to the detail page.
3. For a specific task in the Task Details container, navigate to the processing log through View Log.

Simplified Batch

Simplified Batch >Simplified Batch(View)

Simplified Batch

Name: smb alloc2
Description: another quick test
Folder Name: RTSEGO Access Type: Read/Write Read Only

Batch Execution Type

Batch Execution Type: Parallel Sequential

Search Task Details

Rule Name: Task Type:

Task Details

Task No.	Rule Name	Task Type	Optional Parameters	Folder or Source	View Log
01	SMB FTP Charge Credit Cards 1	Allocation Rule		RTSEGO	VIEW LOG

[Save As](#) [Close](#)

Audit Trail **User Comments**

System ID: 40018278

Created By	Creation Date	Last Modified By	Last Modification Date
QTUSER	08/06/2011 05:36:34	QTUSER	08/06/2011 05:36:34

4. In the View Log page, you can drill down to the log details through the Task ID hyperlink.

View Log									
View Log									
Search									
Component Type		Profitability Management			As of date		03/31/1997		
Folder		RTSEG			Task Name				
Task ID Information (Click on the Task ID for More Information)									
As of date	Date	Folder	Component	Task Name	User	Status	Batch Run Id	Task Id	
03/31/1997	08/06/2011 08:08:45	RTSEG	Profitability Management	SMB FTP Charge Credit Cards 1	QTUSER	C [Completed]	OELPMINFO_Task1_ smb alloc2_ 20110805_2	40016276	

The Task ID represents the System ID of the task (for example, in Profitability Management, an Allocation Rule's System ID).

The task's Batch Run ID is a concatenation of several identifiers. For example, Batch Run ID 'OELPMINFO_Task1_smb alloc2_20110805_2' represents the following:

- Information Domain name (for example, OELPMINFO)
- Task sequence within the Simplified Batch (for example, Task1)
- Simplified Batch rule name (for example, smb alloc2)
- The run date in YYYYMMDD format and the sequential run number for that date (for example, 20110805_2, for the second execution on August 5, 2011).

Additional Batch Options

As noted in the Overview for this chapter, you may also view, execute, schedule, monitor, cancel, and view task logs for Simplified Batches within the broader OFSAA Infrastructure Operations batching framework.

Overview of Profitability Management

Introduction

An effective financial services performance management system should include the following key requirements:

- Flexible, efficient access to account level information
- Multiple views of the organization
- Matched rate funds transfer pricing at the account level of detail
- Flexible definition of cost accounting processes with strong accounting controls
- Powerful modeling capabilities

Together with OFSAA Funds Transfer Pricing, OFSAA Profitability Management addresses these requirements by linking general ledger, account-level, and statistical data together in a unique manner.

Multiple Dimensions of Profitability

OFSAA Profitability Management allows you to construct customized solutions for enriching financial data to generate multidimensional Management Accounting profitability views. Without restricting your ability to select any dimension you choose, the following are representative examples of the types of multi-dimensional performance management views you can construct using OFSAA Profitability Management.

Organizational View

An Organizational View facilitates the measurement of profitability at any level in your organizational structure, such as Bank, Region, Company, Legal Entity, or Division

level; or at lower levels such as Branch, Cost Center or Department. While the Organizational Unit Key Processing Dimension is normally designed to match Responsibility Centers (Cost Centers or Profit Centers) that are found both in your source systems and in your General Ledger extract, you may define additional "organizational" Key Processing Dimensions. For example, you might use the seeded Organizational Unit dimension in reconciling your instrument extracts to your Ledger/Stat data (where your Ledger/Stat table is populated with an extract from your General Ledger) and you might use a second user-defined "organizational" Key Processing Dimension for Legal Entity or Company if one of those dimensions is present in your source General Ledger.

Alternatively, if you have more than one kind of Organizational dimension in your source General Ledger (e.g., Cost Center, Company, Legal Entity, Line of Business), you may be able to concatenate one or more such General Ledger dimensions in your ledger and source system extracts (e.g., Cost Center plus Company) to populate a compound Organizational Unit dimension in your OFSAA data model.

Product View

A Product View facilitates the measurement of profitability of specific product lines including

- On balance-sheet customer-facing products such as Checking, Savings, Time Deposits, Credit Cards, Commercial Loans, Consumer Loans, Credit Lines, or Mortgages
- On balance-sheet, internal products (non-customer facing products) such as Wholesale Funding or Investments
- Off-balance sheet customer-facing services such as Merchant Card, insurance policies, or mutual fund positions
- Off-balance sheet products that may be either internal or custom facing such as options, other derivatives, etc

Customer View

A Customer View facilitates the measurement of customer profitability under any definition of customer you choose to implement. Examples of customers or customer segments might include demographic segments, commercial customers, high net worth customers, retail customer segments, etc.

Channel View

A Channel View facilitates the measurement of the profitability of various methods for delivering products or services to your customer base. As with Customer, you may define your channels any way you wish. Examples of channels might include ATM,

Electronic Banking, Telephone, Retail Branch, and Mail. A better understanding of the cost structures of your delivery channels can assist you in steering your customers to lower cost channels or in doing a better job of aligning true costs with revenues through fee structures designed to encourage customers to utilize lower cost channels.

Key Processing Dimensions in the OFSAA Data Model

Key Processing Dimensions are the keys that the OFSAA engines use to access and segment business data. Every Key Processing Dimension is present in nearly all of your business fact tables, and the usage of processing dimensions permeates most OFSAA rule types.

Seeded dimensions include Financial Element (only found in the Management Ledger), Organizational Unit, General Ledger Account, Common Chart of Accounts, and Product. You may add your own user-defined processing dimensions to your data model.

Financial Element

Used only in the Management Ledger, Financial Element classifies your data in a fashion not typically found in most General Ledgers. When you initially load your Financial Accounting data from your General Ledger, Financial Elements are used to distinguish between:

- Ending monthly balances (FE 100)
- Average monthly balances (FE 140)
- Interest Income or Expense (FE 420)
- Non-Interest Income (FE 455)
- Non-Interest Expense (FE 457)

Seeded Financial Elements

The Financial Element dimension is the only seeded Key Processing Dimension that comes with its own seeded dimension member values. Seeded Financial Element values – dimension members from 0 to 10,000 – may not be modified, but they may be used as storage targets for initial load data or as output targets from allocation rules or other processes. In addition to the five Financial Elements discussed above, OFSAA comes seeded with dozens of additional Financial Elements. For the most part, these other seeded Financial Element values are used as output dimensions member values for:

- The result tables produced by OFSAA Asset/Liability Management (see the *Oracle Financial Services Asset Liability Management (OFSALM) User Guide*.) These Financial Elements are only rarely used within the Management Ledger table (Ledger/Stat).

- Aggregated Instrument-level transfer pricing charges and credits. Such aggregations can be accomplished by using allocation rules or by using application functionality contained within the OFSAA Funds Transfer Pricing application (see the *Oracle Financial Services Funds Transfer Pricing User Guide*.) Seeded Financial Elements that are commonly used as targets in aggregations of FTP data are Financial Element 450 – Transfer Pricing Charge/Credit; and Financial Element 170 – Weighted Average Transfer Rate.
- Direct transfer pricing of Ledger/Stat (again, see the *Oracle Financial Services Funds Transfer Pricing User Guide*; the same Financial Elements (170 and 450) are also used as output targets for direct transfer pricing of Ledger/Stat).
- Storing final, ready to report, fully allocated multidimensional results. While user-defined Financial Elements may also be used for this purpose, there are a series of seeded Financial Elements that you may choose to utilize as they are pre-built to function as "reporting lines" within the Oracle Financial Services Profitability Analytics OBI application.

For a complete listing of all seeded Financial Elements, see Appendix: Seeded Financial Elements, page C-1. For examples of the usage of user-defined Financial Elements, see the sections later in this chapter entitled "Initial Loads to the Management Ledger" , page 12-9 and "Usage Examples of User-Defined Financial Elements".

Organizational Unit

Found in your Management Ledger as well as in all of your Instrument and Transaction Summary tables, Organizational Unit is generally mapped to your General Ledger responsibility center (cost center or profit center) or department.

User-Defined Organizational Units

Additional organizational dimensions may be added as user-defined key dimensions. For example:

- In a Management Ledger implementation, you may wish your profitability implementation to record the organizational source of allocated expense balances to facilitate inbound-outbound center-to-center allocation reporting.
- When loading account level data into the OFSAA Data Model, you will normally map your Book-of-Record cost center to the Organizational Unit dimension (the value that reconciles to your General Ledger). You might also, however, wish to define a Relationship Owning Center or a Company, Line of Business, or Legal Entity dimension.

General Ledger Account

General Ledger Accounts are mapped from your source General Ledger systems.

Financial Accounting systems sometimes refer to this dimension as GL Account or Natural Account.

Common Chart of Accounts

The Common Chart of Accounts dimension is a high-order product dimension that is typically used to link budgeting definitions of product with Transfer Pricing, ALM, or Profitability Management definitions of product (see the User Guides for Funds Transfer Pricing, Asset Liability Management, and Balance Sheet Planning; also see Appendix: Debit & Credit Conventions, page D-1).

Product

Nearly every Profitability Management implementation is interested in a Product view of profitability. Additionally, the seeded Product dimension is normally used for modeling purposes in Funds Transfer Pricing and/or in Asset Liability Management.

User-Defined Key Processing Dimensions

You may customize your data model by adding your own user-defined Key Processing Dimensions. See the section entitled "Overview of Dimensionality in OFSAA" , page 2-3 or the Installation & Configuration Guide for details on adding your own user-defined Key Processing dimensions.

You may also add Standard Dimensions or Simple dimensions to your data model, but the OFSAA Profitability Management engine can only actively utilize Key Processing Dimensions within allocations rule sources, drivers, or outputs.

Additional Profitability Dimensions

One reason for adding user-defined Key Processing Dimensions is that your institution's design calls for additional profitability dimensions such as Channel, Customer, Geography, Line of Business, or Relationship Owning Unit, Company, or Legal Entity.

Additional Working Dimensions

Another reason you may wish to add a user-defined Key Processing Dimension is that you need an additional working dimension, i.e., a dimension along which you do not intend to fully develop Management Accounting analytics. For example, you may wish to add a user-defined Key Processing Dimension for Cost Pool, Transaction or Activity. These dimensions may be actively used within your allocation rules but are typically "in process" dimensions, i.e., dimensions used as stepping stones along the path to fully allocated profitability dimensions.

Yet another reason you may wish to add Key Processing Dimensions is that you must map all of the dimensions present in your source General Ledger to OFSAA Key Processing Dimensions. If your source General Ledger has dimensions such as

Company or Legal Entity, you may need to add these dimensions to your model. If a dimension present in your source General Ledger is "organizational" in nature (i.e., Company or Legal Entity), it may be possible to concatenate such dimensions into the single OFSAA Organization Unit dimension as you design and build your ETL for loading source data for your OFSAA data model (ledger data, instrument data, or transaction summary data).

Overview of Profitability Management Methodologies

Financial Accounting vs. Management Accounting

General Ledger systems are designed to yield Financial Accounting results such as Balance Sheets, Income Statements, Sources & Uses Statements, and other regulatory reports that must be compiled according to international or local accounting standards such as International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (US). In addition to these external reporting functions, GL systems serve internal control and management accountability functions. GL systems need to be able to account for and answer questions such as:

- How much is being spent on occupancy expense?
- How much is being spent on salary and benefits expense?
- How well are we managing IT and network costs?
- Are cost center managers under- or over-budget?
- How are we accounting for cash and receivables?
- How are we accounting for depreciation, goodwill, and other intangibles?
- How are we managing cash flow (cash basis accounting vs. accrual basis accounting)?
- Can we demonstrate appropriate segregation of duties and other internal controls?
- Can we track General Ledger balances back to source transactions and documents?
- Can we satisfy our external stakeholders including auditors, regulators, and investors?

Management accounting systems are often derived in whole or in part from Financial Accounting systems, but are designed to answer a different class of questions such as:

- Which products, customers, geographies, lines of business, divisions, and channels are most profitable?

- How can we influence customer behavior to maximize profitability?
- How well are we controlling risks including interest rate risk, foreign currency risk, credit risk, fiduciary risk, legal risk, operating risk, and market risk?
- Can we measure our profitability in all dimensions on a risk-adjusted basis?
- How can we optimize our external fee structures and internal incentives to optimize risk adjusted profitability?
- Are we properly organized to optimize internal incentives?
- How well are we managing capacity?

Management Accounting Models

Profitability Management models can generally be divided into two types: Management Ledger level profitability (an aggregated multi-dimensional view) and Customer Account Level profitability (a very detailed view). Management Ledger level profitability solutions have some advantages over Account Level solutions. They are generally easier to construct and maintain, have shorter processing cycles, and results in smaller, more manageable volumes of data than Account Level profitability solutions

The primary advantages of Account Level profitability solutions over Management Ledger level solutions is their ability to segment profitability results using both dimensional measures and non-dimensional attributes & measures found at the account level. Such account level attributes and measures can be exploited to stratify your results; they can also be assembled into "pseudo" dimensions (low cardinality dimensions) that typically would not support hierarchies in a reporting context. Examples of ways in which you might exploit account level attributes to supplement multidimensional results would include

- New Business vs. Total Book of Business
- Repricing Profiles
- Runoff Profiles
- Ranges of Risk
- Customer Level Balance Ranges
- Age of Customer Relationship

Another important advantage of Account Level solutions is that they allow you to construct highly granular capital allocation methodologies. This is particularly valuable in developing Risk Adjusted Profitability Management (RAPM) metrics (you may, however, aggregate your bottom-up equity allocations to the Management Ledger

level).

Institutions often construct models that yield both kinds of profitability results. When both kinds of models are built, they will sometimes reconcile to one another and they will sometimes not reconcile to one another. Whether or not they reconcile is a function of the methodologies you select and your institution's preferences.

Management Ledger Profitability Models

The starting point for most Management Ledger level profitability solutions is the Financial Accounting data that you import from your General Ledger system. A number of different processes are generally performed to manipulate your initial Financial Accounting data to produce Management Accounting results.

Management Ledger level models often involve both "top-down" and "bottom-up" kinds of processes. In the Management Ledger context, top-down processes are typically composed of series of allocation rules that operate in a cascading or "waterfall" sequence that begin with your Financial Accounting data.

For example, in constructing Organizational profitability within a Management Ledger, your design might begin with an analysis in which you subdivide all of your Organizational Units (or Responsibility Centers) into either Cost Centers or Profit Centers. Cost Center managers are responsible for managing their expenses and meeting their budgets while Profit Center managers have P & L responsibility. While your General Ledger may support independent P & L's for Divisions, Regions, Lines of Business, or Companies, your objective in a top-down Organizational Profitability solution is to push P & L responsibility down to much lower levels: branches, loan origination centers, etc.

You might continue your analysis by organizing your Cost Centers into functional groups such as Overhead, Indirect Support, and Direct Support. You might then devise a series of allocation rules that allocate Indirect Support expenses to Direct Support cost centers which in turn allocate their (burdened) expenses to Profit Centers. You might finish by allocating Overhead expenses directly to Profit Centers. In some cases, you might also need to allocate some non-interest revenues. Since interest income and interest expense are typically booked to Profit Centers within your General Ledger, it is less likely that you will need to allocate these balances.

You also might wish to build some balance sheet allocations to move non-financial assets & liabilities (such as cash, fixed assets, goodwill, and equity) to the Profit Centers that rely upon those non-financial assets & liabilities to support their businesses. The rationale here is that you generally want to transfer price the entire balance sheet, not just instrument-level balances. As with your instrument balances, these non-financial balances will generate transfer pricing charges & credits and these secondary transfer pricing charges & credits need to be assigned to the proper Profit Centers.

Frequently, Management Ledger implementations focus on both Organizational Profitability and Product Profitability. Typically, these kinds of implementation will first complete the Organizational Profitability component and then continue with

additional allocation rules to develop Product Profitability. Product Profitability is normally developed using both top-down and bottom-up methods.

The above narrative is meant to be illustrative; there are an enormous variety of methodologies you might choose from in constructing Management Ledger level models for Organizational Profitability, Product Profitability, or multi-dimensional profitability incorporating additional dimensions.

As mentioned above, Management Ledger level models typically involve both "top-down" and "bottom-up" kinds of processes. One kind of bottom-up process is matched term funds transfer pricing. In matched term funds transfer pricing, every instrument asset record is assigned a "cost of funds used" and every instrument liability record is assigned a "credit for funds provided". These instrument level charges and credits (expenses and revenues) are subsequently aggregated to the Management Ledger. In implementations where activity based costs (and sometimes revenues) are assigned to each instrument level record, these charges and credits may also be aggregated to the Management Ledger level.

Account Level Profitability Models

As with Management Ledger level solutions, Account Level solutions are also frequently constructed using a combination of top-down and bottom-up processes. For example, you might employ top-down allocations to distribute Management Ledger level income and expenses (expenses being more typical) to the instrument level; and you might employ bottom-up processes such as account level funds transfer pricing and/or allocation rules that employ unit costs and volumes to assign income and expenses (again, expenses being more typical) to instrument level records (note that such low-level, bottom-up income and expense assignments may also be aggregated to the Management Ledger).

Initial Loads to the Management Ledger

When you initially load the Management Ledger (the Ledger/Stat table) with data extracted from your General Ledger, you need to map each row of extracted data to a Financial Element. Similarly, if or when you load other externally sourced data into Ledger/Stat (i.e., statistical data not extracted from your General Ledger), you must also map each row of your extracted data to a Financial Element.

The recommended Financial Elements for General Ledger data or for externally sourced statistical data is as follows:

- Ending Balances – Financial Element 100
- Average Balances – Financial Element 140
- Interest Income & Expense Balances – Financial Element 420
- Non-Interest Income Balances – Financial Element 455

- Non-Interest Expense Balances – Financial Element 457
- Statistical data – Financial Element 10,000

Usage Examples of User-Defined Financial Elements

You may, of course, create additional user-defined Financial Elements for use in storing:

- Additional statistics that you source from an external system
- Driver statistics that are built up through allocation rule processes and that you intend to use in subsequent allocation rules
- Allocation rule outputs if, for example, you are building up cost pools or other intermediate balances that represent "in process" balances that are not yet fully allocated to final multidimensional results
- Final, fully allocated balances that you wish to report on (i.e., you may use a range of user-defined Financial Elements to build up a "reporting line" structure for fully allocated multidimensional profitability results)

Using Financial Elements as Income Statement Reporting Lines

You may wish to build up fully allocated, multidimensional profitability balances that represent reporting lines in your final analytical results. For example, if you wish to construct income statements by Organizational Unit and by Product and by Geography, you might choose to construct allocation rules that will drive towards final result balances by Organization Unit, by Product, by Geography, and by Financial Element where Financial Elements are used to store reporting line balances for:

- Interest Income / Interest Expense
- Charge for Funds Used / Credit for Funds Provided
- Fee Income
- Direct Expense
- Indirect Acquisition Expense
- Indirect Servicing Expense
- Direct & Indirect Taxes

Under this approach, Financial Elements that serve as "Reporting Lines" in your Management Accounting income statements take the place of the General Ledger Account dimension that serves the "reporting line" function in pre-allocated Financial Accounting income statement data extracted from your General Ledger. Whereas your

Financial Accounting income statements may be very detailed and may be comprised of hundreds or even thousands of GL Accounts, your Management Accounting income statement reporting line structure will likely have far fewer rows, probably 30-60 lines.

A seeded set of Financial Elements that you may wish to use as reporting lines are included in the standard data model (the complete list of all seeded Financial Elements is documented in Appendix : Financial Elements, page C-1).

A seeded Financial Element hierarchy is also provided that contains rollup points for the seeded "reporting line" Financial Elements. These rollup points, which include values such as Total Interest Income, Total Interest Expense, Net Interest Income, Risk Adjusted Net Interest Income, and Risk Adjusted Net Income, are structured to function as subtotals. The seeded "reporting line" Financial Elements (leaf member values plus rollup point values) are pre-built in to the Oracle Financial Services Performance Analytics (OFSPA) Business Intelligence (BI) application. If you choose to develop a strategy that involves allocating balances to Financial Elements that are intended to support such a "reporting line" structure, you may customize the seeded profitability Financial Element structure by (1), adding your own user-defined Financial Elements and (2), modifying the seeded Financial Element hierarchy. After having customized the seeded profitability Financial Elements and the related subtotaling hierarchy, the changes can be made to flow seamlessly into the analytical dashboards within the OFSPA BI application without any additional customization.

You may, of course, choose not to develop a "reporting line" strategy for developing multidimensional profitability; or you might choose to build out reporting lines under another user-defined Key Processing Dimension.

Regardless of what dimension you choose for storing "reporting line" balances within your Management Ledger (assuming that you do adopt such a strategy), your final "reporting line" balances may be the result of bottom up processes such as:

- Aggregation of Transfer Pricing charges and credits from the instrument level. Such FTP charges and credits may result from charges or credits for principal balances, charges or credits for basis risk or liquidity risk, or charges or credits for secondary balances that you have allocated to instruments (such secondary balances are typically allocated from the Management Ledger to the instrument level; examples would include loan loss reserves, risk equity, central bank reserves; or other allocated debit or credit balances such as plant & equipment, cash & due from banks, goodwill, prepaid expenses, etc.) The charges & credits associated with these allocated balance-sheet balances may be generated using the transfer pricing rates that have already been assigned to each instrument's principal balance; or you may adopt a simple methodology for ascribing transfer rates to these allocated balances (e.g., pre-determined rates that are assigned to each allocated balance as a function of its perceived duration).
- Aggregation of rate times volume results from the Instrument and/or Transaction Summary levels for activity based expenses or revenues
- Aggregation of instrument level revenues or expenses that are derived directly

from your source systems (e.g. Accrued Interest Payable or Receivables, Fee income, etc.)

Or they may be the result of top-down processes such as

- Non-interest expense balances (typically in the form of center-to-center or center-to-product allocations)
- Direct Transfer Pricing of Ledger balances (such direct transfer pricing charges and credits may be generated within the Management Ledger using OFSAA Funds Transfer Pricing; OFSAA FTP posts such results to Financial Element 450). For details on direct transfer pricing of ledger balances, see the OFSAA Funds Transfer Pricing User Guide.

Reporting Lines for Selected Balance-Sheet Balances

You may also wish to build up "reporting line" Financial Elements for selected balance-sheet balances. Although you will not always be able to demonstrate a balanced balance-sheet (for example, it is not meaningful to construct a balanced balance-sheet for a Product line or for a Line of Business), if you build out selected balances, those balances could be used in ratio analysis either within the OFS Profitability Analytics OBI application or within your own reporting tool. The OFS Profitability Analytics OBI application includes predefined cube definitions that generate ratios and formulas that use such balance-sheet balance reporting lines (e.g., for risk adjusted profitability ratios such as return on assets, risk adjusted return on equity, net income after capital charge, etc.)

Allocation Specification

Introduction

This chapter describes Allocation Specification functionality. Specifically, this chapter will cover:

- Allocation Specification Summary & Detail Screens
- Navigation within the Allocation Specification Summary Screen
- Navigation within the Allocation Specification Detail Screen
 - Initial Definition Process Tab
 - Source Process Tab
 - Operator Process Tab
 - Driver Process Tab
 - Outputs Process Tab
 - Review Process Tab
- Allocation Examples

Summary & Detail Screens

Upon initially navigating to Profitability Management > Rule Specification > Allocation Specification, a summary screen is displayed showing a set of Allocation rules. Using search criteria, you can control the set of Allocation rules that are displayed. When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Allocation Specification summary screen, the allocations stored within your current default Folder are presented in a summary grid. The Allocation Specification summary screen has two containers: Search and Allocation Specification.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences for Profitability Management. You may select a different Folder or you may remove the Folder constraint entirely by selecting the "blank" Folder, i.e., no Folder. You may also search by Allocation Name or by Allocation Type.

Allocation Specification									
* Search									
Folder	<input type="text"/>	Name	<input type="text"/>						
Allocation Type	All Allocations								
* Allocation Specification									
<input type="checkbox"/>	Name ▲	Creation Date	Created By	Allocation Type	Last Modified Date	Modified By	Access Type	Folder	Status
<input checked="" type="checkbox"/>	0050C	12/11/09 16:54:46	STUSER2	Constant	12/11/09 16:54:46	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0200	12/10/09 10:37:54	STUSER2	Static Driver	12/14/09 13:30:37	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0500C	12/11/09 12:58:41	STUSER2	Dynamic Driver	12/11/09 12:58:41	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	ALLOC_EXP_ABS	12/11/09 17:09:48	STUSER2	Static Driver	12/11/09 17:09:48	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	LEDG_LEDG	12/11/09 13:24:52	STUSER2	Dynamic Driver	12/11/09 13:24:52	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	Static Table	12/10/09 14:30:49	STUSER2	Static Driver Table	12/10/09 16:45:32	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_CONSTANT	12/18/09 10:44:09	STUSER2	Constant	12/18/09 10:44:09	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	TEST_CONSTANT	12/09/09 10:43:32	STUSER2	Constant	12/09/09 10:43:32	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_DYNAMIC	12/09/09 11:33:36	STUSER2	Dynamic Driver	12/09/09 18:36:18	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_EXP	12/09/09 13:21:40	STUSER2	Static Driver	12/09/09 13:21:40	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_FIELD	12/09/09 11:20:08	STUSER2	Field	12/09/09 11:20:08	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_LEAF	12/09/09 10:52:49	STUSER2	Leaf	12/09/09 10:52:49	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_LOOKUP	12/09/09 14:28:16	STUSER2	Lookup Driver Table	12/09/09 14:28:16	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	TEST_STATIC	12/09/09 10:54:29	STUSER2	Static Driver	12/09/09 10:54:29	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	alloc	12/15/09 15:09:36	STUSER2	Static Driver	12/15/09 15:34:18	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	desc	12/10/09 15:55:48	STUSER2	Dynamic Driver	12/10/09 15:55:48	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	expressions	12/10/09 15:32:22	STUSER2	Dynamic Driver	12/11/09 11:44:51	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	new test rule	12/11/09 11:48:26	STUSER2	Dynamic Driver	12/11/09 11:48:26	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	sanity_check_st2	12/16/09 15:47:30	STUSER2	Dynamic Driver	12/16/09 15:47:30	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	save as test	12/09/09 18:36:59	STUSER2	Lookup Driver Table	12/10/09 11:05:22	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	static_driver_table	12/09/09 18:10:34	STUSER2	Static Driver Table	12/09/09 18:10:34	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	table id	12/11/09 16:29:12	STUSER2	Static Driver Table	12/11/09 16:29:12	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	test	12/11/09 11:57:45	STUSER2	Dynamic Driver	12/11/09 11:57:45	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	test_constant1	12/21/09 13:33:59	STUSER2	Constant	12/21/09 13:33:59	STUSER2	Read / Write	GASEGR2	

Search Control



You may search for Allocation rules by Folder, by Allocation Name, or by Allocation Type. Enter your desired search criteria and click on the Search control.

Reset Control



Restores the default Folder, removes any Allocation Name or Allocation Type constraint you may have specified, and refreshes the screen.

Allocation Specification Container

The Allocation Specification container presents a grid containing all of the Allocation rules that meet your search criteria. The Allocation Specification summary grid offers several controls that allow you to perform different functions when an Allocation rule is selected. To select an Allocation rule, click on a check box in the first column of the grid. More than one Allocation rule can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the Allocation rule.

You may select or deselect all of the Allocation rules in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add



Clicking on the Add control begins the process of building a new Allocation rule. The Add control is disabled if any rows in the grid have been selected.

View



Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of an Allocation rule on a read-only basis. The View control is only enabled when a single allocation rule has been selected.

Edit



Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Allocation rule. The Edit control is only enabled when a single allocation rule has been selected.

Delete



Selecting one or more rows out of the grid enables the Delete control. Clicking on the

Delete control deletes the rules you have selected.

Run



After having chosen a single row out of the grid, clicking on the Run control allows you to execute the selected Allocation rule. The As-of-Date that applies to the rule execution is visible in the upper right corner of the screen; it may be reset in Application Preferences for Profitability Management. The Run control is only enabled when a single allocation rule has been selected.

View Dependencies



Clicking on the View Dependencies control generates a report on any rule objects that depend on the Allocation rule you have selected. The View Dependencies control is only enabled when a single allocation rule has been selected.

Allocation Specification Summary Grid

The following columns categorize each allocation rule in the summary grid:

- Name
- Creation Date
- Created By
- Allocation Type
- Last Modified Date
- Modified By
- Access Type
- Folder
- Status

Allocation Specification									
<input type="checkbox"/>	Name ▲	Creation Date	Created By	Allocation Type	Last Modified Date	Modified By	Access Type	Folder	Status
<input checked="" type="checkbox"/>	0050C	12/11/09 16:54:46	STUSER2	Constant	12/11/09 16:54:46	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0200	12/10/09 10:37:54	STUSER2	Static Driver	12/14/09 13:30:37	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0305	12/14/09 13:04:10	STUSER2	Field	12/16/09 12:48:01	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	0500C	12/11/09 12:58:41	STUSER2	Dynamic Driver	12/11/09 12:58:41	STUSER2	Read / Write	GASEGR2	
<input type="checkbox"/>	ALLOC_EXP_ABS	12/11/09 17:09:48	STUSER2	Static Driver	12/11/09 17:09:48	STUSER2	Read / Write	GASEGR2	VIEW LOG
<input type="checkbox"/>	LEDG_LEDG	12/11/09 13:24:52	STUSER2	Dynamic Driver	12/11/09 13:24:52	STUSER2	Read / Write	GASEGR2	

Name

Displays the Allocation rule's short name. Performing a "mouse-over" on an Allocation Name displays the Allocation rule's long name and system identifier.

Creation Date

Displays the date and time at which an Allocation rule was created.

Created By

Displays the name of the user who created an Allocation rule.

Allocation Type

Displays an Allocation rule's type. Supported rule types are:

- Constant
- Static Driver
- Leaf
- Field
- Dynamic Driver
- Static Driver Table
- Lookup Driver Table

Last Modified Date

Displays the date and time at which an Allocation rule was last modified.

Modified By

Displays the name of the user who last modified an Allocation rule.

Access Type

Displays the "Read/Write" or "Read Only" property of an Allocation rule. Only the creator of a rule may change its Access Type.

Folder

Displays the name of the Folder in which an Allocation rule is stored.

Status

Prior to having executed an Allocation rule for the first time, Status is blank. After having executed an Allocation rule, the words "View Log" are displayed as a hyperlink. Clicking on the View Log hyperlink opens a log viewer enabling you to view the execution log for the Allocation rule's last run.

Navigation within the Detail Screen

When you Add, Edit, or View an Allocation rule, the Allocation Specification Detail Screen is displayed. The detail screen is composed of 6 process tabs that are described below. The appearance of the detail screen depends on which tab is active. Regardless of which of tab is currently active, the Process Tabs container and the Allocation Rule Definition container are always the first two containers displayed. Other containers shown depend on which tab is currently active. The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Process Tabs Container

Each of the 6 process tabs is designed create, edit, or view different components of an allocation's specification. You may navigate from any tab to any other tab at any time. The 6 process tabs are:

- Initial Definition
- Source
- Operator
- Driver
- Outputs
- Review

Allocation Rule Definition Container

Like the Process tabs container, the Allocation Rule Definition container is always displayed regardless of which process tab is active. The Allocation Rule Definition container, however, is an active container only on the Initial Definition tab; it is displayed in a "read only" format in every other process tab. Its usage on the Initial Definition tab is described below.

The screenshot shows a software interface with two main sections. The top section, titled "Process Tabs", contains a horizontal flow of six tabs: "Initial Definition", "Source", "Operator", "Driver", "Outputs", and "Review". The "Initial Definition" tab is highlighted with a yellow border. The bottom section, titled "Allocation Rule Definition", is a form with the following fields:

Rule Name *	Sample Allocation Rule
Rule Description	Allocation of risk equity for mortgages
Folder	GASEGR2
Access Type	<input type="radio"/> Read <input checked="" type="radio"/> Read/Write

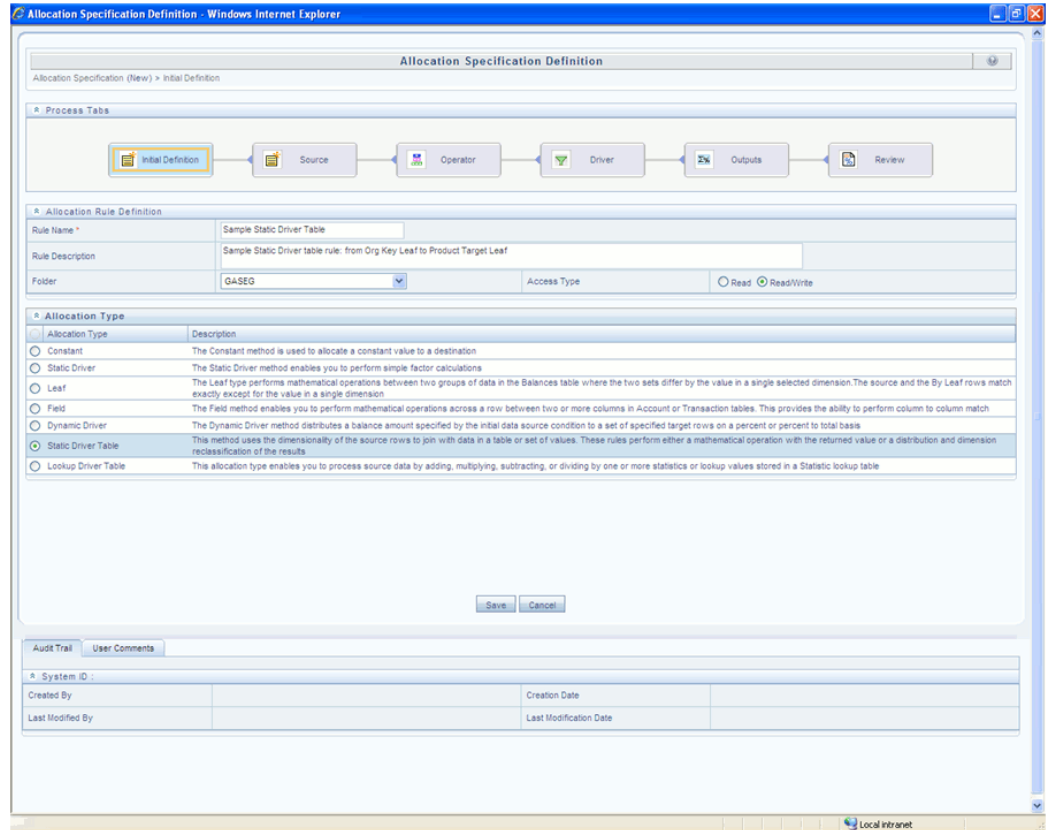
Regardless of which tab is active, you may always return to the Initial Definition table to rename a rule, change its description, its Folder, or its Access Type.

Initial Definition Process Tab

The Initial Definition process tab allows you to specify Rule Name, Rule Description, Folder, Access Type, and Allocation Type.

Allocation Rule Definition Container

Specify the Allocation Rule Name and Description, select a Folder in which the Allocation rule is to be stored, and specify whether you want the Allocation rule to be "Read/Write" or "Read Only" (Access Type). Naming your Allocation rule is required before it can be saved. Default values for Folder and Access Type are stored in Application Preferences for Profitability Management.



Allocation Type Container

When you initially build an Allocation rule, you must select its Allocation Type. Once an Allocation rule has been saved, you may no longer change its type. After you have chosen an Allocation Type on the Initial Definition process tab, the appearance of subsequent process tabs will depend upon the Allocation type you have chosen. The available rule types are Constant, Static Driver, Leaf, Field, Dynamic Driver, Static Driver Table, and Lookup Driver Table.

Definitions of Static & Dynamic Drivers

Most Allocation rules distribute or aggregate balances using driver data. Examples include:

- Expense allocations as a function of square footage occupied or headcount
- Aggregation of instrument balances to the Management Ledger
- Reclassification of Management Ledger balances to dimensions not found in the original General Ledger data.

Drivers can be stored as components of your overall allocation model or they can be

stored as facts within your business data. Headcount and square footage statistics, for example, are frequently stored as memo accounts within your General Ledger. When you load the OFSAA Management Ledger table with your General Ledger data, those headcount and square footage statistics may be utilized as drivers within your allocation rules. These kinds of business-data resident driver are referred to as Dynamic Drivers.

In other cases, you will embed your driver data into an Allocation rule or into a driver table that the allocation engine supports. These kinds of drivers are referred to as Static Drivers. Profitability Management supports three kinds of rules that use static drivers: Static Driver, Static Driver Table, and Lookup Driver Table.

Dynamic Drivers often have many advantages over Static Drivers. An Allocation rule that uses a static driver will take the same value or values every time you use it in a rule, but an Allocation rule that uses a dynamic driver may have different driver sets from day-to-day or from month-to-month. Additionally, whereas you must normally pre-compute your static drivers, dynamic drivers are generated at run time. Dynamic drivers, frequently used in full cost-absorption allocation models, are often generated by other allocation rules.

Static drivers sometimes have advantages over dynamic drivers. For example, you may have pre-computed unit costs that you wish to use to drive your allocations in order to generate partial absorption costing.

Allocation Types

The allocation types are mentioned in detail below.

Constant

A Constant Allocation rule creates a simple balanced transaction consisting of one debit and one credit. You may optionally specify either one debit or one credit (at a minimum, you must supply at least one debit or one credit). The Constant rule type only operates against the Management Ledger. For Constant allocation rules, the Operator and Driver process tabs are disabled; you need only specify a fixed amount in the Source tab and a debit and/or credit in the Outputs process tab.

Static Driver

The Static Driver method enables you to perform simple factor calculations against a set of source balances. Source balances may be drawn from the Management Ledger table, Instrument tables, or Transaction Summary tables. For Static Driver rules, the Driver process tab is disabled. For this kind of rule, you define where to get your source data on the Source process tab, a static driver amount on the Operator process tab, and the resulting debits and/or credits on the Outputs process tab. See the last section of this chapter for examples of Static Driver allocations.

Leaf

Leaf type allocations are used only against the Management Ledger table. They are

typically used to perform an operation between two sets of rows that differ in a single dimension. See the last section of this chapter for examples of Leaf allocations.

Field

A Field type allocation is typically used to multiply two columns within a single row in an instrument table update Allocation rule. See the last section of this chapter for examples of Field allocations.

Dynamic Driver

Typically, Dynamic Driver allocation rules aggregate or distribute balances using dynamic data (business resident driver data) such as headcount, square footage, or instrument-level balances. Dynamic Driver data, however, need not be limited to statistics you may have sourced as part of your ETL load to the OFSAA data model. Dynamic Driver data can be "captured" or developed within an Allocation rule. For example, balances by product within each cost center can normally be obtained from your instrument data. You can build allocation rules to aggregate these statistics from your instrument level data and post them to your Management Ledger for use in subsequent rules; or you can write an allocation that develops this set of driver data by querying your instrument data at runtime. Driver data obtained from your instruments need not be limited to balances. Examples of instrument level dynamic drivers you might use in allocation rules include:

- Number of accounts by product by cost center by year of origination
- Number of loan payments processed by loan processing center by month
- ATM transaction counts by region by month

The most common distribution method for the Dynamic Driver type of allocation is the "Percent-to-Total" or "Force to 100%" method. In addition to the Force to 100% method, Profitability Management also supports a Simple method and a Uniform method. Dynamic Driver allocation rules and methods are described in more detail in the sections entitled Driver Process Tab and Output Process Tab. Also see the last section of this chapter for examples of Dynamic Driver allocations.

Static Driver Table

Static Driver Table allocation rules offer functionality similar to Dynamic Driver allocation rules but use driver data that is stored in a Profitability Management rule type called Static Table Driver. See the Chapter entitled Static Table Drivers for a guide to building Static Table Driver rules and for additional explanation of their use. Also see the last section of this chapter for additional examples of Static Driver Table allocations.

Lookup Driver Table

Lookup Driver Table allocation rules support multi-factor allocations at the Instrument level. In addition to supporting dimension based allocation methods, the Lookup Driver Table rule type also supports allocations based on instrument-level balances,

rates, codes, or other instrument level measures. Typical use cases include allocation of loan loss reserve, economic provision, or risk equity first as a function of product, a dimension, but also as a function of instrument level measures such as loan-to-value ratio, credit score, loss in event of default, probability of default, remaining term to maturity, etc.

The driver data used in a Lookup Driver Table allocation rule is stored in user-defined lookup tables that are registered into the OFSAA data model. The data from your user-defined lookup table is matched to Instruments tables. The logic governing how your lookup data is matched to Instrument tables is stored in a Lookup Table Driver rule. Lookup Driver Table Allocation rules incorporate Lookup Table Driver rules in the Allocation Specification > Driver process tab.

See the Chapter entitled Lookup Table Drivers for a guide to building Lookup Table Driver rules and additional explanation of their use. Also see the last section of this chapter for examples of Lookup Driver Table allocations.

Source Process Tab

Use the Source process tab to specify an Allocation rule's data source. For an Allocation of the Constant type, you simply specify an amount. For any other type of rule, you must either specify a source table & column and, optionally, a set of constraints. Alternatively, you may specify an Expression to specify a more complex Source than a simple source table and column.

For Container

Choose a source table and then choose either a column from that table or choose an Expression rule.

Expression Container

When choosing an Expression to act as the source for your Allocation rule, the expressions available to you are limited to those built upon the table you selected in the For container.

The screenshot shows a configuration interface with two main sections: 'For' and 'Expression'.
The 'For' section has a 'Table Name' dropdown set to 'Mortgages' and a 'Column/Expression' field with radio buttons for 'Column Name' (unselected) and 'Expression' (selected).
The 'Expression' section has a 'Folder' dropdown set to 'GASEGR2' and an 'Expression' dropdown set to 'Mortgages Matched Spread ABS'. There is a small icon to the right of the 'Expression' dropdown.

Note: You may open a view-only version of the Expression you have chosen by clicking on the View control

Management Ledger Source

When your Source is the Management Ledger, you will typically use the <Current Amount> macro as your column name. The Ledger/Stat table is the default table for new allocation rules (except for the Constant type), and <Current Amount> is the default column. The <Current Amount> macro selects the current month from your Management Ledger on the basis of the As-of-Date set in your Application Preferences and on the basis of your Fiscal Year definition. If your As-of-Date is set to March 31, 2010, <Current Amount> will be always be interpreted as March. If, however, your fiscal year begins in April, your March data is actually stored in Ledger/Stat under the MONTH_12 column since March is the last month in your fiscal year. For details on fiscal year, see Appendix : Fiscal Year Information, page B-1.

^ For	
Table Name *	Ledger Stat
Column Name	[Current_Amount]

In addition to <Current Amount> , Profitability Management also offers macros for:

- <YTD Amount>
- <Last Month Amount>
- <Last Month YTD Amount>

You may also select explicit column names from Ledger/Stat for month end values and YTD values (MONTH_01 to MONTH_12 and YTD_01 to YTD_12).

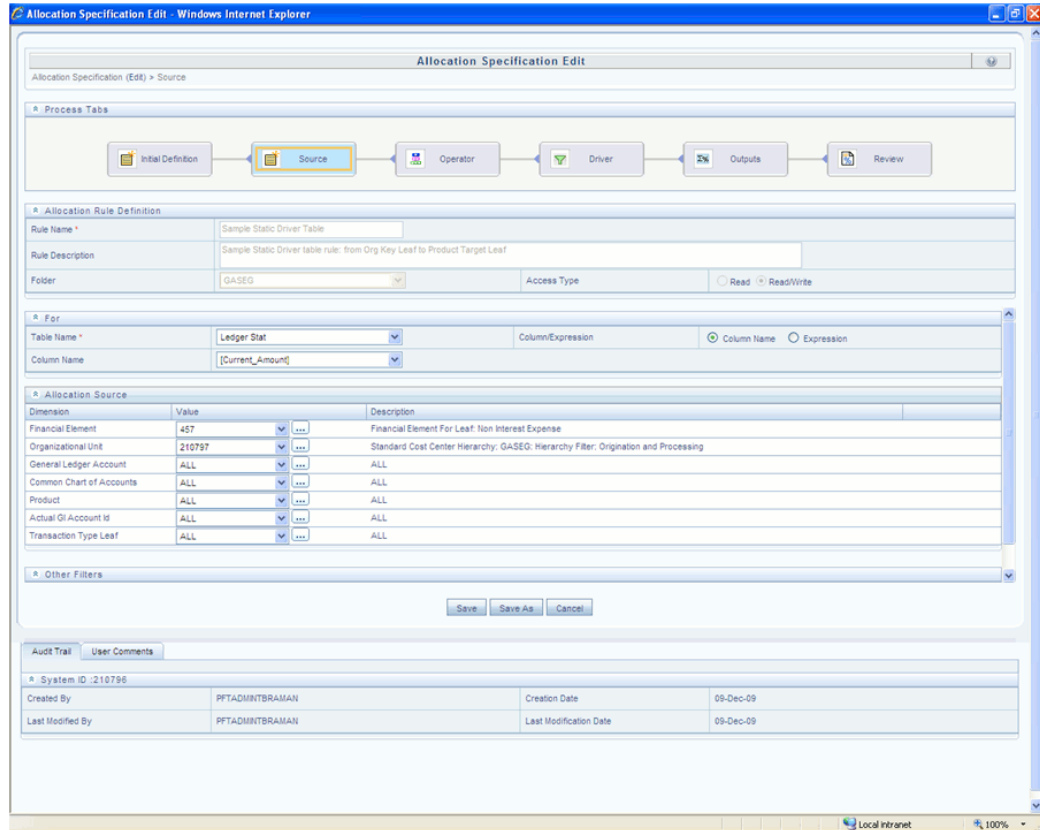
Instrument or Transaction Summary Source

When your Source is an Instrument or Transaction Summary table, you may choose any valid measure in the table. Valid measures include only rates, balances, and numeric statistics such as activity counts.

^ For	
Table Name *	Mortgages
Column Name	Current Net Par Balance

Allocation Source Container

The Allocation Source Container is used to provide dimensional constraints on your Source data. For any dimension, you may constrain your source data by selecting a leaf member, a rollup member within a Hierarchy, or a Hierarchy Filter.



Some examples of how the Source tab is used to provide input data to an allocation rule include:

Desired Data

Constraint

Get all expenses for all GL Accounts within a specific cost center

Single leaf constraint on Organizational Unit plus single leaf constraint on Financial Element 457 – Non Interest Expense

Get all current mortgage balances for adjustable rate products originated in the past year

Hierarchy member constraint on the Product dimension plus a Data Filter constraint

Get all initial General Ledger balances plus all allocated balances for a specified set of cost centers for one GL Account

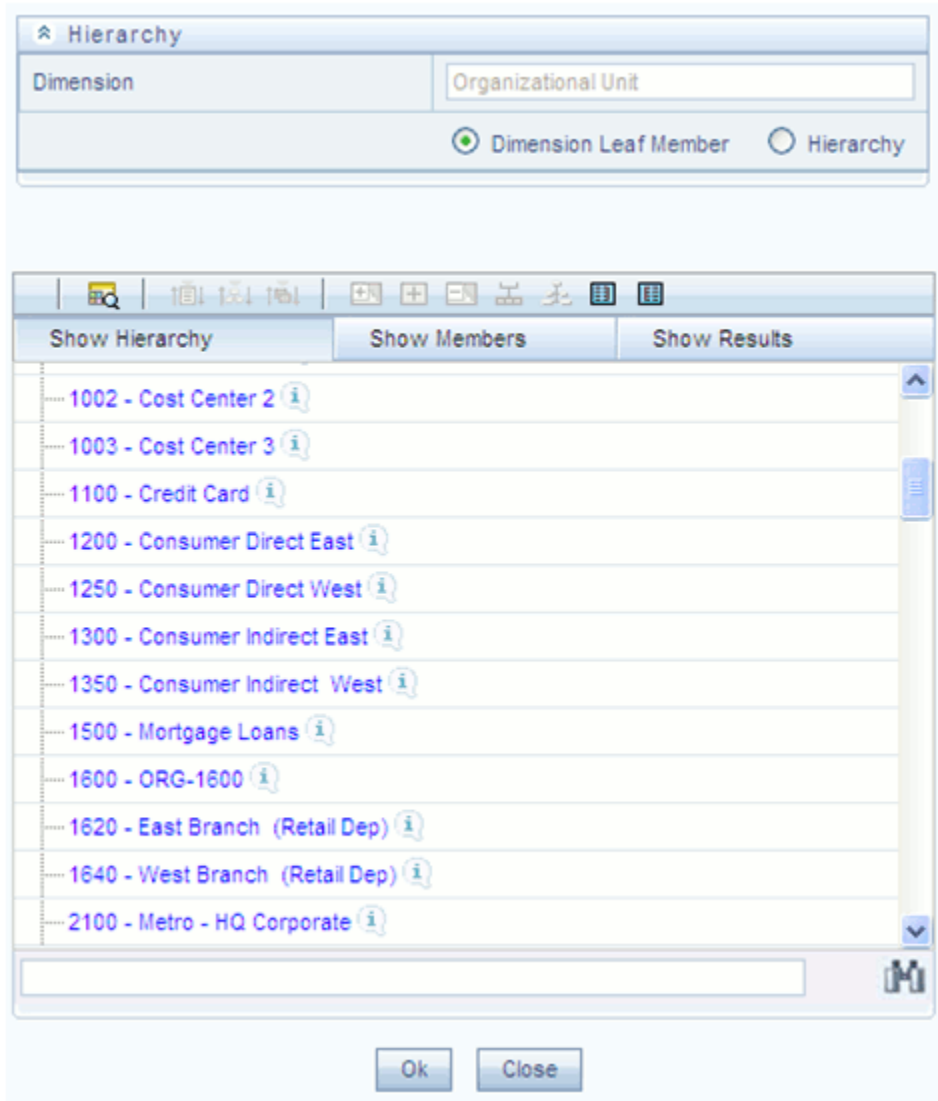
Single leaf constraint on General Ledger Account plus a Hierarchy member constraint on Organizational Unit

Desired Data	Constraint
Get ending balances for all balance sheet assets for the North, South, and East divisions (but not the West division except for the South-West sub-region)	Single leaf constraint on Financial Element plus Hierarchy member constraint on the GL Account dimension plus a Organizational Hierarchy Filter

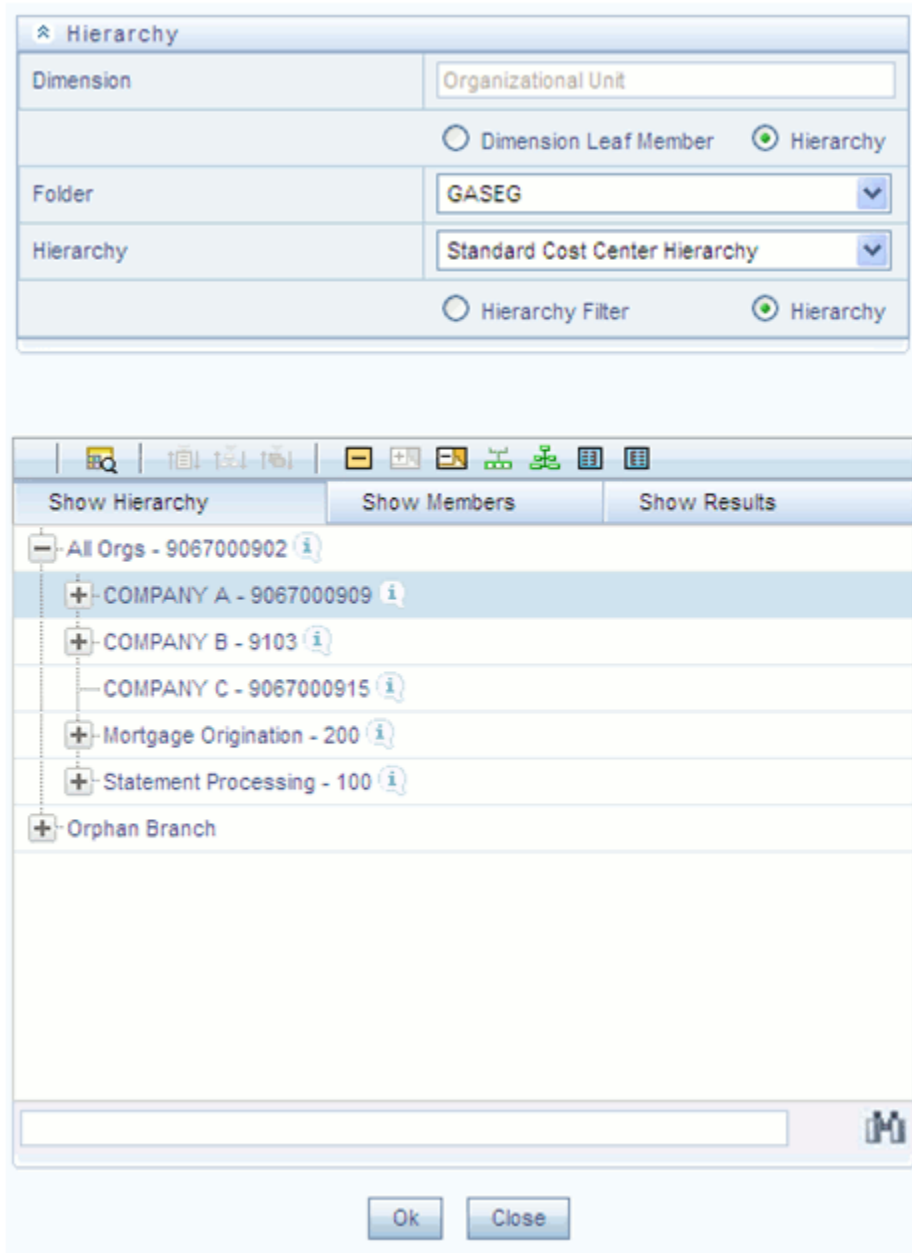
The dimensions listed in the Allocation Source container are limited to your Key Processing Dimensions. Financial Element, Organizational Unit, General Ledger Account, Common Chart of Accounts, and Product are seeded Key Processing Dimensions for all OFS Analytical Applications. You may add your own Key Processing Dimensions (see Installation & Configuration Guide for guidance on adding your own processing dimensions). If you have enabled multicurrency, the Currency dimension will also be displayed. For details on multicurrency calculations within Profitability Management, see the Appendix : Multicurrency.

Hierarchy Browser on the Source Tab

The default for each dimension is <All> (meaning no constraint). To select a constraint, click on the Hierarchy Browser ellipses (...) next to the dimension you wish to constrain.



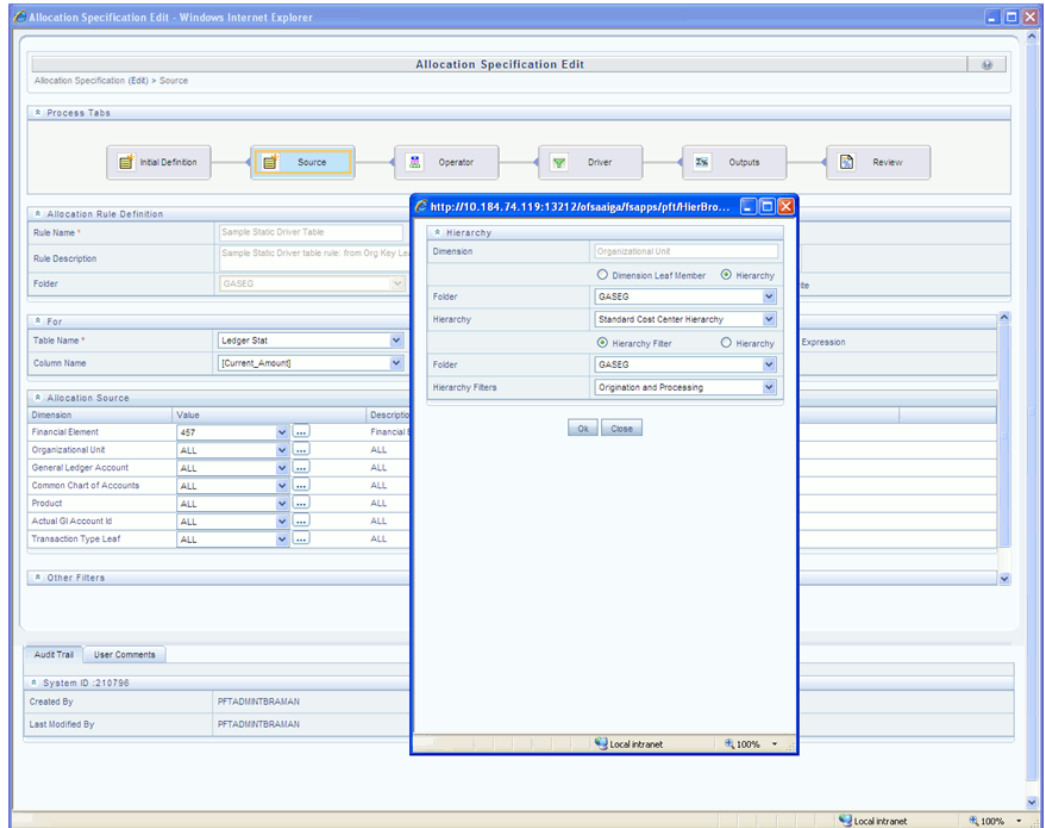
The Hierarchy Browser defaults to a list of leaves for the dimension you have chosen (the radio button selector near the top of the browser window defaults to Dimension Leaf Member). You may scroll up and down to find the leaf member you want or you may search for the member's name (short description) using the binoculars at the bottom of the browser window. Additional search functionality is provided by the Search control within the browser. This additional functionality allows you to search by Dimension Member Dimension member, Name, or Code.



To constrain your source using a hierarchy rollup point, click the Hierarchy radio button near the top of the browser window and then search for the hierarchy you wish to use. Once your chosen hierarchy is displayed within the browser window, navigate into the hierarchy until you have found the rollup point or leaf value you want. Click on your selected value and then click OK.

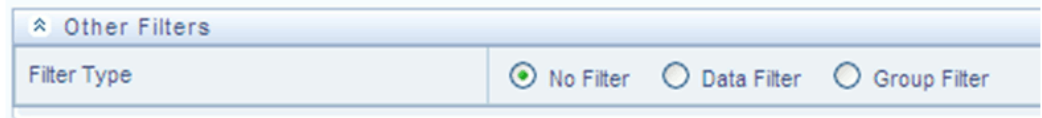
Hierarchy	
Dimension	Organizational Unit
<input type="radio"/> Dimension Leaf Member <input checked="" type="radio"/> Hierarchy	
Folder	GASEG
Hierarchy	Standard Cost Center Hierarchy
<input checked="" type="radio"/> Hierarchy Filter <input type="radio"/> Hierarchy	
Folder	GASEG
Hierarchy Filters	Origination and Processing

To constrain your source using a Hierarchy Filter, first select the Hierarchy radio button near the top of the browser window and then search for the hierarchy that supports the Hierarchy Filter you wish to use. Next, click on the Hierarchy Filter radio button near the top of the browser window, search for the Hierarchy Filter you wish to use, and then click OK.



Other Filters Container

You may optionally select a Data Filter or a Group Filter rule to further constrain your Source data.



Operator Process Tab

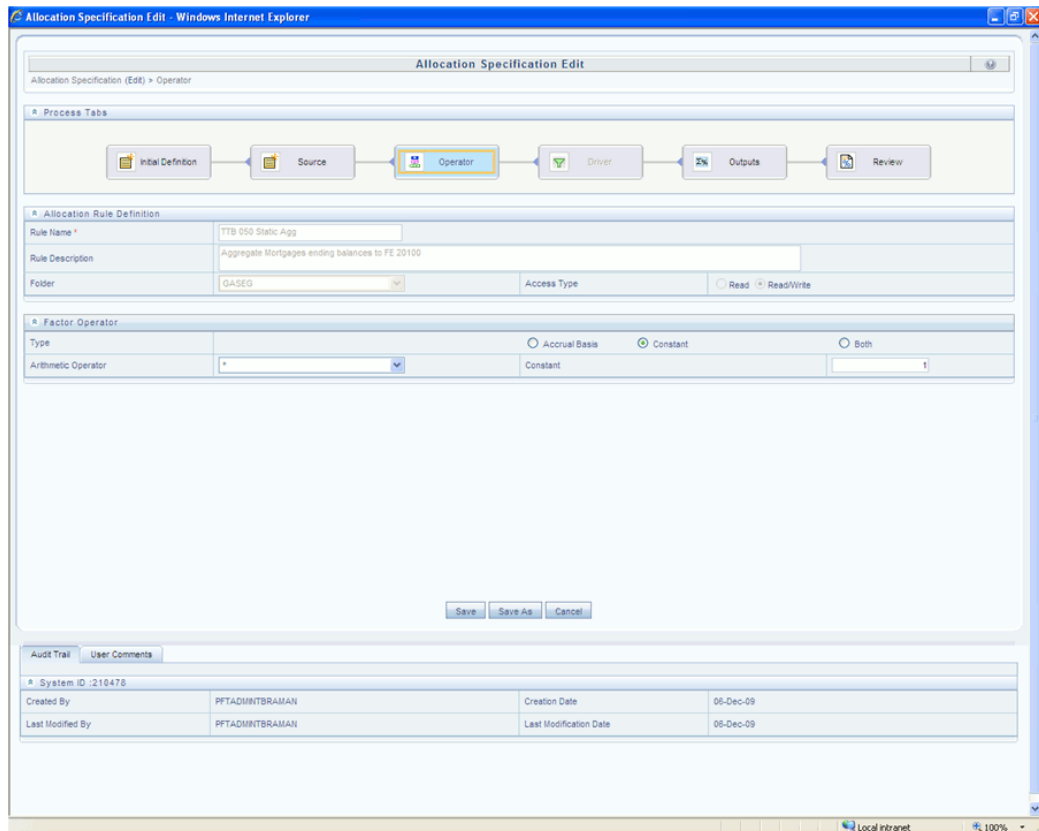
Generally, the Operator process tab allows you to specify how Source data and Driver data will interact to create results.

Operator Process Tab for Constant Rules

No Driver is necessary in the specification of a Constant rule. Both the Operator process tab and the Driver process tab are disabled for the Constant rule type.

Operator Process Tab for Static Driver Rules

For Static Driver rules, the Driver process tab is disabled, but the Operator process tab is enabled in order to allow you to specify a static driver balance. Static amounts are entered into the Factor Operator container.



Operator Process Tab for All Other Rule Types

For all other rule types, the Operator process tab offers both a Factor Operator and an Allocation Operator. The Allocation Operator links the Allocation rule's Source Data with its Driver data. The Factor Operators may be interposed between the Source and Driver.

Factor Operator Container

Factor Operators may be used to either

- Store static driver amounts and/or accrual basis macros for Static Driver rule types
- Interject constant values and/or accrual basis macros between allocation Sources and Drivers for Leaf, Field, Dynamic Driver, Static Driver Table, or Lookup Driver

Table rule types

The Factor Operator allows you to modify Source data by adding, subtracting, multiplying, or dividing Source data by a constant amount, an accrual basis macro, or both.

The screenshot shows the 'Allocation Specification Definition' web application interface. At the top, there is a breadcrumb trail: 'Allocation Specification (New) > Operator'. Below this is a 'Process Tabs' section with a flow diagram: 'Initial Definition' -> 'Source' -> 'Operator' (highlighted) -> 'Driver' -> 'Outputs' -> 'Review'. The main form area is divided into several sections:

- Allocation Rule Definition:** Includes fields for 'Rule Name' (Mortgages Example), 'Rule Description' (Update Interest Income column as current balance times 30/360 accrual basis fact divided by 100), 'Folder' (GASEG), and 'Access Type' (Read/Write).
- Factor Operator:** Contains radio buttons for 'None', 'Accrual Basis', 'Constant', and 'Both' (selected). It has two rows of 'Arithmetic Operator' dropdowns. The first row has '*' and '30/360'. The second row has '/' and '100.0000'.
- Allocation Operator:** Contains one 'Arithmetic Operator' dropdown with '*' selected.

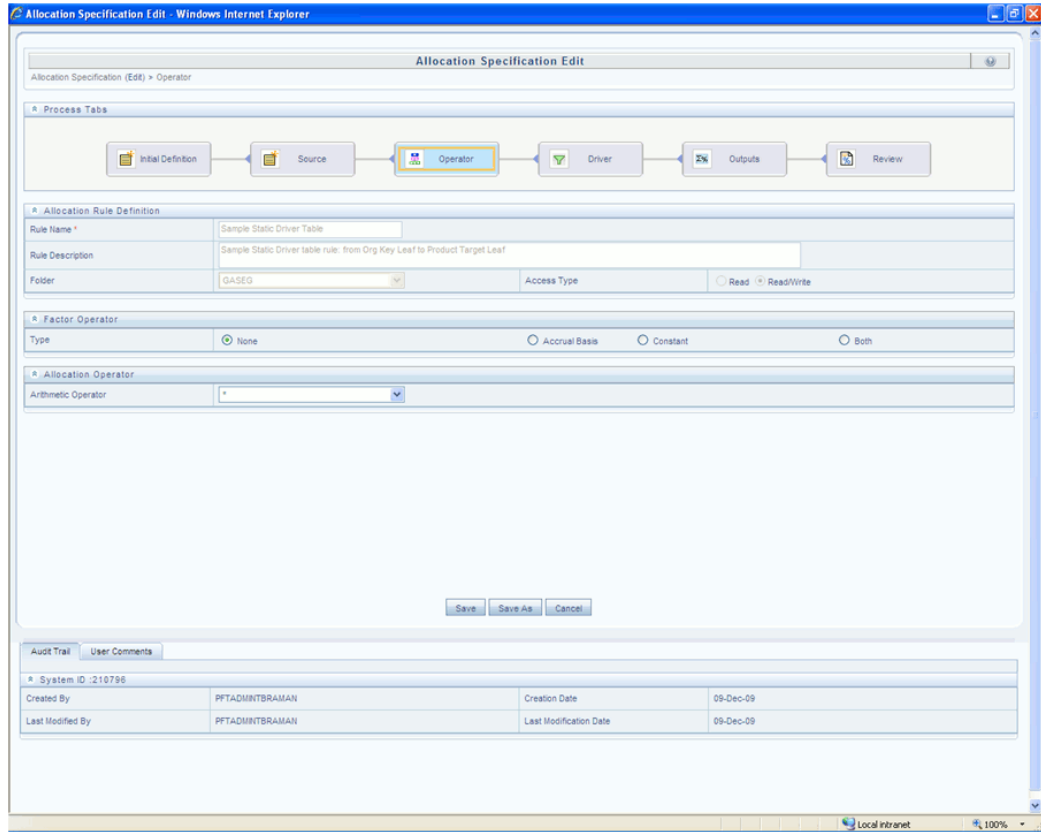
At the bottom of the form are 'Save' and 'Cancel' buttons. Below the form is an 'Audit Trail' section with 'System ID', 'Created By', 'Creation Date', 'Last Modified By', and 'Last Modification Date' fields.

Examples of Usage of the Factor Operator

- Instrument level rate times balance allocations commonly use the "Both" type factor operator in which the first factor operator is "times <accrual-basis> macro" and the second factor operator is "divided by 100" when posting to a monthly income or expense balance.
- In the above example, if you were to choose a 30/360 accrual basis factor, you could equally well specify your factor operator as "divide by 1200".
- In a typical percent distribution allocation such as "distribute all Human Resource expense to all cost centers as a function of headcount", you may sometimes want to distribute less than 100% of total expense. In this example, your Source data would be "all Human Resource expense", your Driver data would be "head count by cost center" on a percent-to-total basis, and your Factor Operator would be whatever percentage of total expense you are choosing to allocate.

Allocation Operator Container

For all allocation types except Constant and Static Driver, the Allocation Operator links the Allocation rule's Source Data with its Driver data. The most common form of linkage is multiplication, but both multiplication and division are supported. For some allocation types, addition and subtraction are also supported.



Driver Process Tab

The Driver process tab allows you to specify a set of driver data that is combined with Source data to create allocation outputs. The way in which Source data and Driver data interact is a function of the type of Allocation rule you are using and the nature of the Operator you have specified.

The Driver process tab is enabled for Leaf, Field, Dynamic Driver, Static Driver Table, and Lookup Driver Table allocation types. The containers displayed on the Driver process tab vary from rule type to rule type.

For Container

For the Leaf, Field, and Dynamic Driver allocation types, a For container is displayed in

which you can choose either a driver table & column or an Expression to serve as the source of your Driver data.

Leaf Driver Container

The Leaf Driver container is only displayed for the Leaf allocation type. Use this container to specify the dimension and leaf value you wish to use. See the last section of this chapter for examples of Leaf allocations.

Distribution Type Container

The Distribution Type container is only displayed for the Dynamic Driver allocation type. Use this container to select the Simple, Percent Distribution, or Uniform distribution method.

Percent Distribution Method

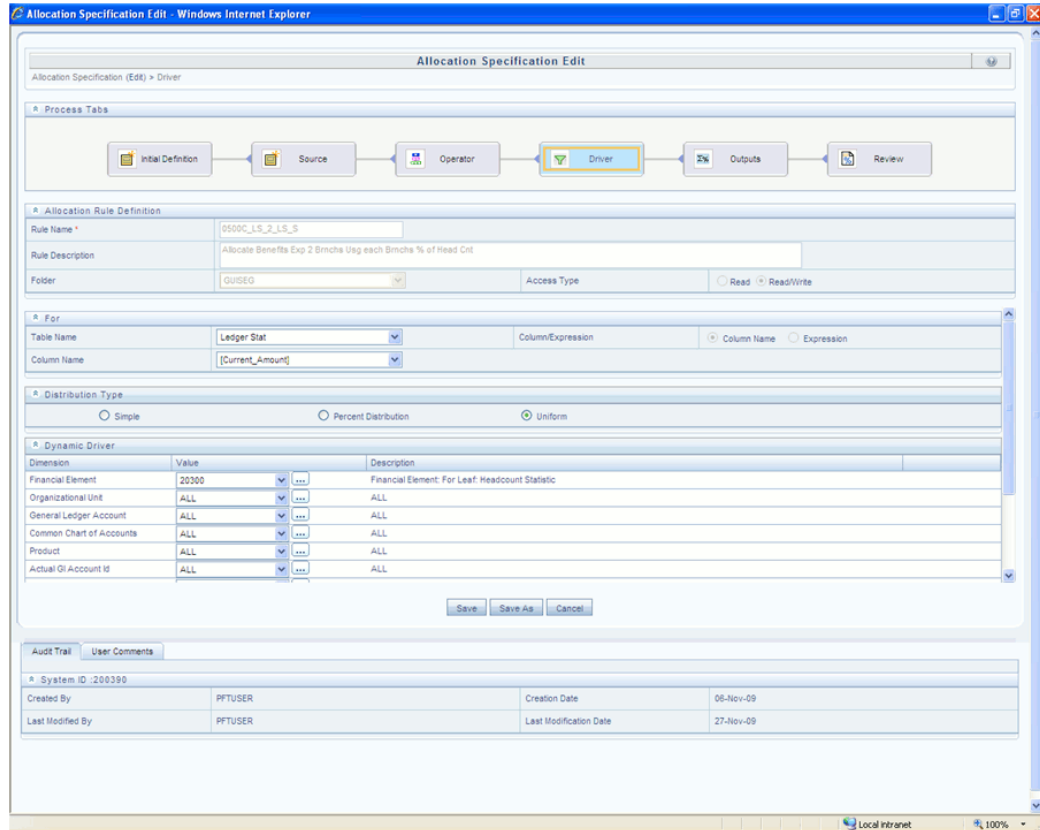
The most common distribution method is Percent Distribution (sometimes referred to as Force to 100%). Typical use cases include expense allocations as a function of a driver set that has not been normalized, i.e., converted to percentages of the total driver set. For example, if you wanted to distribute some expense balance to Departments 1, 2, and 3, and if Departments 1, 2, and 3 had headcounts of 100, 200, and 700, you would choose the Percent Distribution method to allocate 10% (100/1,000) to Department 1, 20% (200/1,000) to Department 2, and 70% (700/1,000) to Department 3.

Simple Method

Use the Simple distribution method in cases where your dynamic drivers are stored as percentages. You might also use the Simple distribution method if your allocation source data were activity counts and your driver data represented unit costs.

Uniform Method

Use the Uniform distribution method in cases where you want to allocate equal shares of your source data for each destination in your driver set regardless of driver amount. Continuing with the above headcount example, you may wish to allocate equal shares of 10% of total Human Resource department expense to any Department having non-zero headcount. In this case, you would use Human Resource department expenses as your allocation Source, you would specify a Factor Operator of 10%, you would specify your "Headcount by Cost Center" statistic set as Driver, and you would select the Uniform distribution method. Statistical driver sets are frequently stored in the Management Ledger under user-defined Financial Elements

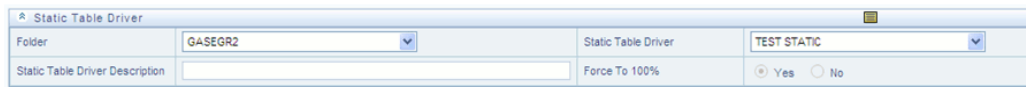


Dynamic Driver Container

For the Dynamic Driver allocation type, use this container to supply dimensional constraints for your driver data. You supply dimensional constraints using the hierarchy browser. From the Dynamic Driver container, the behavior of the hierarchy browser is identical to the hierarchy browser described above under "Allocation Source Container". See the last section of this chapter for examples of Dynamic Driver allocations.

Static Table Driver Container

For the Static Driver Table allocation type, specify a Folder and select a Static Table Driver rule. For a discussion of their use including examples, see Using Static Table Drivers in Chapter 13: Static Table Driver.

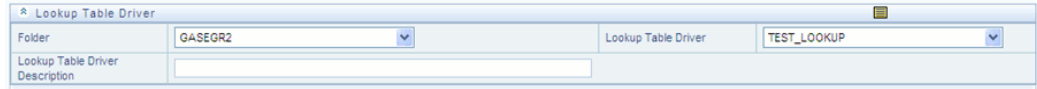


Note that once you have chosen a Static Table Driver rule, a View control is added to the Static Table Driver title bar. Click on this View control to view a read-only version

of the Static Table Driver rule you have chosen.

Lookup Driver Table Container

For the Lookup Driver Table allocation type, specify a Folder and select a Lookup Driver Table rule. Note that the drop down list box for Lookup Table Drivers is limited to Lookup Table Drivers whose source tables match the table specified in the current Allocation rule's Source definition. For a discussion of their use including examples, see Chapter 14: Lookup Table Driver.



Note that once you have chosen a Lookup Table Driver rule, a View control is added to the Lookup Table Driver title bar. Click on this View control to view a read-only version of the Lookup Table Driver rule you have chosen.

Other Filters Container

For the Field and Dynamic Driver allocation types, you may optionally select a Data Filter or a Group Filter rule to further constrain your driver data.

Outputs Process Tab

The Outputs process tab allows you to specify where the outputs of an Allocation rule are written. When outputting to the Ledger/Stat table, the allocation engine creates Management Ledger debits and/or credits. When outputting to Instrument or Transaction Summary tables, the allocation engine updates target columns.

Debit/Credit Tab

Both Debit definitions and Credit definitions are built and maintained on the Outputs process tab. Within the Outputs process tab, the Debit/Credit tabs allow you to navigate back and forth between a rule's Debit definition and its Credit definition. You may also use the Debit/Credit tabs to suppress the output of either Debits or Credits, but you may not suppress the output of both Debits and Credits.

When the Output Table is the Management Ledger

When posting allocation results to the Management Ledger, the Profitability Management allocation engine generates a balanced accounting transaction consisting of multiple debits and credits. As few as one debit or credit may be generated, or you might generate thousands of debits and credits.

When the Output Table is Instrument Level

When using an allocation rule to update an Instrument or Transaction Summary table, the Profitability Management allocation engine updates your chosen output column for each instrument level account that is found in your Source and for which a matching Driver is found.

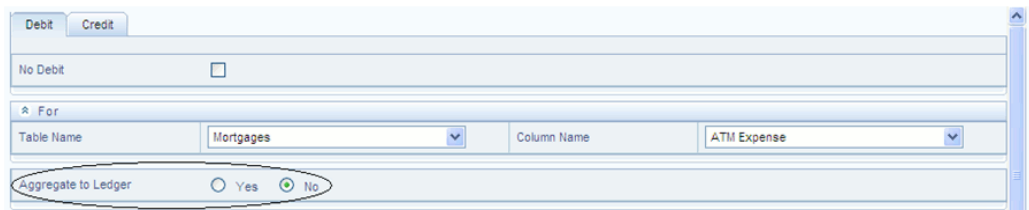
For Container

Specify the output table and column for the Allocation rule.

- When posting results to Management Ledger, the <Current Amount>macro is the only available target column.
- For Constant and Leaf type rules, you may only output to the Management Ledger
- For Lookup Driver Table type rules, you may only output to an Instrument or Transaction Summary table.

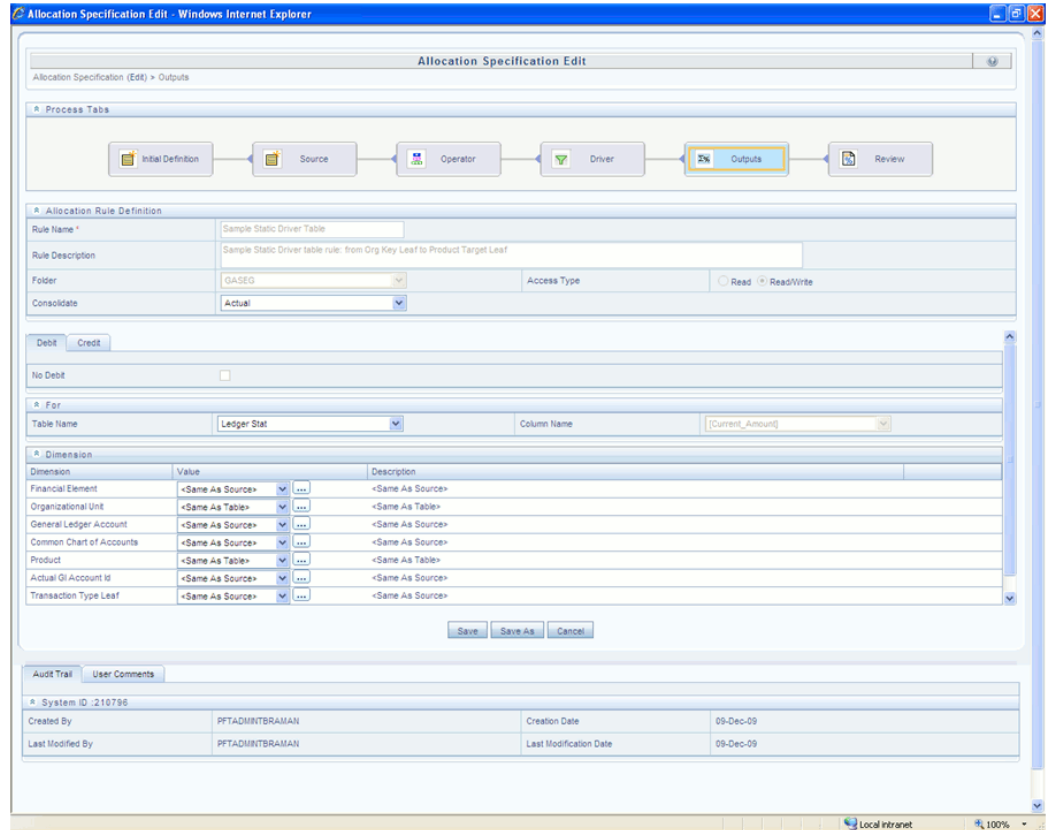
Aggregate to Ledger

For Allocation rules that update an Instrument or Transaction Summary tables, you have the option of aggregating your results and posting them to the Management Ledger.



The screenshot shows a configuration window with the following elements:

- Buttons for "Debit" and "Credit" at the top left.
- A "No Debit" checkbox.
- A section labeled "For" containing:
 - "Table Name" dropdown menu set to "Mortgages".
 - "Column Name" dropdown menu set to "ATM Expense".
- A section labeled "Aggregate to Ledger" with two radio buttons: "Yes" and "No". The "No" radio button is selected and circled in red.



Dimension Container

The Dimension container is displayed for every allocation type. The default value for each dimension is generally <Same as Source>. You may choose a specific dimension member value for any dimension for both debits and credits for any allocation type.

Specific Leaf Value vs. <Same as Source> Macro

For allocation rules posting to the Management Ledger, <Same as Source> for a particular dimension means that for that dimension, the values found in Source records are passed directly to Output records. For example, you might want to allocate 100% of the expenses from one department to a second department. In your original General Ledger data, expenses for the Source cost center might be posted under hundreds of different General Ledger accounts. In this example, you might specify your Credit Output (expense allocation offset) as:

- <Same as Source> for the Organizational Unit dimension
- <Same as Source> for the General Ledger Account dimension

Written in this fashion, your allocation rule will generate a credit to the original department for every original expense balance. If the source department contained

balances under 81 different General Ledger accounts, the allocation rule would generate 81 credit records.

Continuing, you might specify your Debit Output as:

- Target Department (leaf value) for the Organizational Unit dimension
- "Allocated Expense" (leaf value) for the General Ledger Account dimension

In this example, Allocated Expense is a user-defined General Ledger account. You would typically define this dimension member in a reserved range of accounts for use in your Profitability Management model. Note that only one debit row is created in this scenario. Also note: When you choose to output to a specific leaf value, you may not output to a node value. Outputting to node values is not supported.

Other Output Macros

Other output macros include

- <Same as Driver>
- <Match Source & Driver>
- <Same as Table>

The usage of these macros is discussed in the sections below entitled Dynamic Driver Allocation Type, Static Driver Table Allocation Type and Lookup Driver Table Allocation Type.

Constant Allocation Type

For Constant type allocations, you must specify a target leaf value for each of your processing dimensions for both your debit and your credit. You may optionally suppress either the Debit or the Credit.

Static Driver Allocation Type

For Static Driver allocations, you may choose either a specific dimension member value or the <Same as Source> macro for each of your processing dimensions.

Leaf Allocation Type

For Leaf allocations, you may choose either a specific dimension member value or the <Same as Source> macro for each of your processing dimensions.

Field Allocation Type

For Field allocations, you may choose either a specific dimension member value or the <Same as Source> macro for each of your processing dimensions.

Dynamic Driver Allocation Type

For Dynamic Driver allocations, for each of your processing dimensions you may choose either a specific dimension member value or

- <Same as Source>
- <Same as Driver>
- <Match Source & Driver>

At least one dimension in either your Debit or Credit specification must be either <Same as Driver> or <Match Source & Driver>.

Same as Driver Macro

The <Same as Driver> macro is used when you want your outputs to inherit values from your driver data. For example, you might want to build an allocation rule to distribute some kind of processing expense to branches using "Number of Checks Processed per Branch" as your driver statistic set. In this example, your statistics "drive" your processing expense to branches so you would want specify <Same as Driver> in the Organizational Unit dimension of your Debit definition. Since our example is an expense allocation, you might want to construct a Credit definition using <Same as Source> in every dimension.

Match Source & Driver Macro

The <Match Source & Driver> macro is used when you want to distribute data to one dimension while holding another dimension constant. For example, you might want to build an allocation rule that allocates a Human Resource expense cost pool as a function of headcount but that also allocates an Occupancy Expense cost pool as a function of square footage occupied. If your destinations are cost centers, you can store your statistic sets – one for headcount and one for square footage – on a per Cost Center per Cost Pool basis. In this example, you would use <Match Source & Driver> on the Cost Pool dimension and <Same as Driver> on the Organizational Unit dimension. This causes the rule engine to create two sets of Debits to Cost Centers:

- One set of Debits from the Human Resource expense Cost Pool using the headcount statistics
- One set of Debits from the Occupancy expense Cost Pool using the square footage occupied statistics

Static Driver Table Allocation Type

For Static Driver Table allocations, for each of your processing dimensions you may choose either a specific leaf value or you may choose

- <Same as Source>

- <Same as Table>

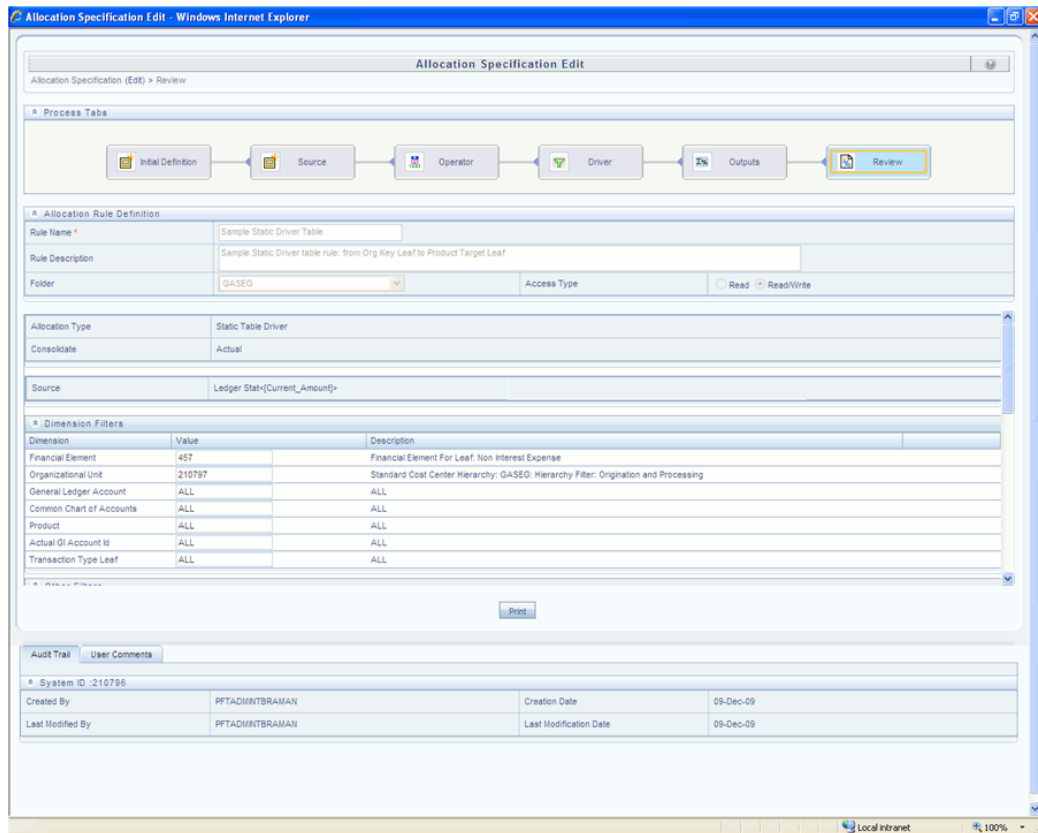
When you choose <Same as Table> for a dimension, you are telling the allocation engine that you want your rule to inherit its destination dimension member values from the Static Table Driver.

Lookup Driver Table Allocation Type

For Lookup Driver Table allocations, you may choose either a specific leaf value or the <Same as Source> macro for each of your processing dimensions.

Review Process Tab

The Review process tab displays a single page, printable report of an Allocation rule's specification.



Allocation Examples

Examples of Static Driver Allocation Rules

The examples are explained in detail below:

From Management Ledger to Management Ledger

For Static Driver allocation rules, Management Ledger-to-Management Ledger is a common use case.

- Allocate 15% of the occupancy expense from one cost center to another cost center. In this example, the static driver is 15%.
- Create a cost pool by aggregating 25% of the expense found under a select group of General Ledger accounts for a region or a division or a department, or a single cost center. In this kind of aggregation, the static driver is 25%.
- Transfer 100% of loan assets from all of the loan origination centers within a region to a regional holding center. In this example, the static driver is 1.

Note: While such allocations are relatively common, it is more likely when you have a series of such allocations to utilize Static Driver Table rules. Using a Static Driver Table rule, you can accomplish with a single rule what might otherwise require dozens or even hundreds of Static Driver allocation rules.

From Instrument to Management Ledger

Instrument-to-Management Ledger is a very common use case. Such allocations are inherently aggregative, i.e., multiple rows from the instrument source map to each row posted to the Management Ledger.

You may wish to aggregate your instrument level principal balances (current book balances) to the Management Ledger in order to either enrich your ledger with dimensionality that is present in your instrument data but not present in your initial Financial Accounting data. For example, General Ledgers normally have more constrained dimensionality than is available in your instrument data. Each row of your instrument data may designate an owning Cost Center, a General Ledger corresponding to the instrument's principal balance, its Product, its Customer Segment, etc. Your General Ledger, however, may only have dimensions corresponding to Cost Center and GL Account. In this case, even though your Management Ledger table includes columns for Product and Customer Segment, every row from your initial load from your source General Ledger system will populate a single value for these dimensions the meaning of which is "Not Applicable" or "N/A".

The following example demonstrates how you can use a Static Driver allocation rule to "reclassify" your Management Ledger data using data from the Checking and Savings (CASA) Instrument table. Build a Static Driver allocation rule as follows:

- Set the Source to Current Book Balance for the CASA Instrument table
- Set the Allocation Operator to "multiply by 1"
- Credit Ledger/Stat for Financial Element 100 (Ending Balance) using <Same as Source> for every dimension
- Debit Ledger/Stat for Financial Element 100 (Ending Balance) using <Same as Source> for the GL Account and Organizational Unit dimensions; set every other Key Processing Dimension to "N/A"

Note: When allocating debit balances, you must post them using the Debit Output tab; offsets to these debits should be posted using the Credit Output tab. Conversely, when allocating credit balances, you must post them using the Credit Output tab; offsets to these credits should be posted using the Debit Output tab.

This allocation effectively eliminates your original balances and replaces them with "enriched" data, i.e., data that is aligned to Product and Customer Segment as well as to Organizational Unit and General Ledger Account. For a further discussion of this kind of aggregation rule, especially in a context in which there are any variances between the sum of your instrument level balances and your initial General Ledger balances, see the section below entitled Management Ledger Reclassification Using Instrument Level Driver Data.

Another very typical use case for aggregating instrument level data to the Management Ledger concerns summarizing Funds Transfer Pricing results. An example for the CASA table might be:

- Set the Source to Transfer Pricing Charge/Credit for the CASA Instrument table
- Set the Allocation Operator to "multiply by 1"
- Credit Ledger/Stat for Financial Element 450 (Transfer Pricing Charge/Credit) using <Same as Source> for every dimension
- Debit Ledger/Stat for Financial Element 450 (Transfer Pricing Charge/Credit) using <Same as Source> for every dimension except for Organizational Unit; for the Organizational Unit dimension, post to your Funding Center

Here, the Funding Center is a shadow cost center that you have established to house all of your transfer pricing offsets. Your Funding Center acts as an interest rate risk management center. For a typical bank whose weighted asset duration exceeds its weighted liability duration, the Funding Center will normally be a profit center (at least

in a normal upward sloping yield curve environment). For a more detailed discussion of the Funding Center and of interest rate risk management in general, see the *Oracle Financial Services Funds Transfer Pricing User Guide*.

Note: If you use OFSAA Funds Transfer Pricing, you may perform these kinds of aggregation to the Management Ledger within the Funds Transfer Pricing application.

From Instrument to Instrument

Instrument-to-Instrument is a common use case.

- For each instrument, calculate and update a target column as a fixed relationship to some other column. For example, calculate a loan loss reserve as a fixed percentage of the current balance of each mortgage loan.
- For each instrument, calculate a rate times a balance and multiply it by an accrual basis factor and divide it by 100 in order to update a revenue or expense column. This kind of allocation would use as Expression as a Source where the expression contained a rate times balance calculation. The Static Driver would consist of (1) an accrual basis macro and (2) and factor of 0.01.

From Transaction Summary to Management Ledger

Transaction Summary-to-Management Ledger is a common use case.

- Aggregate Transaction Summary level costs to the Management Ledger; post results to a user defined Financial Element

From Transaction Summary to Instrument

Transaction Summary-to-Instrument is a common use case.

- Aggregate Transaction Summary level costs to an associated Instrument table column. For example, you may record activity level volumes & costs in your CASA (Checking and Savings) Transaction Summary table. You may wish to aggregate a group of ATM related activities such as ATM Withdrawal Expense, ATM Inquiry Expense, ATM Transfer Expense, ATM Deposit Expense, and Other ATM Expense to an instrument column in the CASA table called ATM Expense.

From Transaction Summary to Transaction Summary

Transaction Summary-to-Transaction Summary is an infrequent use case.

- Multiply CASA Transaction Summary volumes by a fixed unit cost and post the result to CASA Transaction Summary costs

- Because Transaction Summary tables commonly store activity volumes, you are more likely to build this kind of rule using Static Table Driver rules that contain unit costs for many activities. To complete your Volume * Unit Cost □ Cost process, one Static Driver Table allocation rule could take the place of dozens or hundreds of Static Driver allocation rules.

Examples of Leaf Allocations

Leaf allocations only support the Management Ledger-to-Management Ledger use case. Leaf allocations are used to compare a Source set of Management Ledger balances to a Driver set of Management Ledger balances in order to create an Output set of Management Ledger balances.

In this kind of rule, the allocation engine attempts to match each Source row to a Driver row where the two rows share the same values for every Key Processing Dimension but one. For example, in an implementation in which there are 7 Key Processing Dimensions, for each Source row the engine will attempt to find a Driver row which matches the Source row in 6 dimensions but which differs in one dimension. The one dimension in which Source and Driver rows must differ is the dimension chosen in the Driver as the "Leaf" dimension.

- Example 1: You may wish to divide a set of Management Ledger Transfer Pricing Charge/Credit balances (stored under Financial Element 450) by a set of Management Ledger Average Balances (stored under Financial Element 140) in order to generate a third set of Management Ledger Weighted Average Transfer Rates (stored under Financial Element 170). In this case, you would constrain your Source data to Financial Element 450; for your Driver, you would specify Financial Element as your Leaf dimension and you would pick Financial Element 140. Finally, for your output you would choose a Financial Element of 170.
- Example 2: You may wish to subtract a set of "Aggregated Instrument Level Ending Balances" (stored under a user-defined Financial Element such as 10100) from a set of "original General Ledger ending balances" (stored under Financial Element 100) in order to generate a set of variances between your General Ledger data and your instrument data. These variance records might be stored under a second user-defined Financial Element such as 20100.

Examples of Field Allocations

In the Instrument table context, Field allocations perform arithmetic operations on different columns within the same row of data. For example, you might use a Field allocation rule to multiply an instrument level balance times a rate times an accrual basis factor in order to update a rate-related income or expense column. Such an allocation could update a single row or millions of rows depending on your filtering criteria.

In the Management Ledger context, Field allocations are rarely used. When they are

used, Field allocations generally perform arithmetic operations on different columns within the same "logical" row of data. For example, you might wish to generate a result set of rows in the Management Ledger that represent changes in asset values from month to month. In this case you build a Field allocation that used the < Current Amount > macro for all Management Ledger asset balances as your Source and that subtracted the < Last Month Amount > in the Driver. In this example, you would suppress the Credit output and write the Debit output to a user-defined Financial Element. If your Source Financial Element were 100 (Ending Balance), you might elect to post your results to a user-defined Financial Element whose name was Month-Over-Month Change.

In this current example, the engine will generally perform its arithmetic calculation (in this case, subtraction) on two different columns within the same physical row within the Management Ledger (the Ledger/Stat table). In the event that you were calculating a Month-over-Month change from December to January, however, the engine would obtain its January value (its Source value) from one row and its December value (the < Last Month Amount > specified in the Driver) from a second row. These two rows would be identical in every respect except for their Year Summary (YEAR_S) values. Similarly, if you were to build a Field Allocation rule to generate Year-over-Year changes, the engine would always be comparing sets of Source rows that were identical in every respect except for their Year Summary values.

Examples of Dynamic Allocations

Management Ledger Reclassification Using Instrument Level Driver Data

Example #1

Most commonly, your General Ledger constitutes a starting point for building up your Management Ledger. One way of enriching your Management Ledger is to exploit your instrument level data to distribute balances to additional dimensions that are not present in your book-of-record General Ledger.

For this example, assume that your General Ledger data is aligned in the Organizational Unit and GL Account dimensions but is not aligned to the Product dimension. For purposes of illustration, imagine a very simple case in which:

1. Your General Ledger records principal balances for Commercial Loans and Consumer Loans under 2 GL accounts for Branch 1 and Branch 2
2. Your Loan Instrument table contains thousands of loan records for the same 2 GL Accounts (Commercial Loans and Consumer Loans) for Branch 1 and Branch 2 for two different products

The following table summarizes the balances for this example.

Table	GL Account	Branch	Product	Balance	# of Loans
Ledger/Stat	Commercial Loan	1	—	\$1,000	—
Ledger/Stat	Commercial Loan	2	—	\$2,000	—
Ledger/Stat	Consumer Loan	1	—	\$3,000	—
Ledger/Stat	Consumer Loan	2	—	\$4,000	—
Loans	Commercial Loan	1	Land	\$600	214
Loans	Commercial Loan	1	Construction	\$400	659
Loans	Commercial Loan	2	Land	\$1,400	814
Loans	Commercial Loan	2	Construction	\$600	907
Loans	Consumer Loan	1	Auto	\$2,100	273
Loans	Consumer Loan	1	Personal	\$900	622
Loans	Consumer Loan	2	Auto	\$2,600	861
Loans	Consumer Loan	2	Personal	\$1,400	590

Note that the instrument balances and General Ledger balances reconcile perfectly, e.g., the 214 Land loans and 659 Construction Loans under Branch 1 have balances totaling \$1,000 which reconcile with the General Ledger balance of \$1,000 for Commercial Loans under Branch 1.

In order to "product align" the Management Ledger:

1. Build a Dynamic Driver allocation rule where the Source filters on the Management Ledger for the < Current Amount > macro for the Asset branch of your GL Hierarchy for Financial Element 100 (Ending Balance). Instead of utilizing a rollup node to filter on assets, you could construct a Data Element Filter for the Commercial Loans and Consumer Loans GL accounts. For reasons discussed below, only the Financial Element constraint is truly required.
2. Set the Allocation Operator to Multiply.
3. Set the Dynamic Driver to utilize Ending Balance from your Loan instrument table. Set the Driver's Distribution Type to Percent Distribution. No dimensional

constraints or other filters are necessary.

4. Set the Credit Output to Ledger/Stat (note: when posting outputs to Ledger/Stat, you MUST output to the < Current Amount > macro). Set < Same as Source > for each Key Processing Dimension.
5. Set the Debit Output to Ledger/Stat; use < Match Source & Driver > for the GL Account and Organizational Unit dimensions, < Match Driver > for the Product dimension, and < Same as Source > for all other Key Processing Dimensions.

Written in this fashion, the allocation rule will (1) generate credit records that exactly offset the original ledger (debit) balances and (2) aggregate the instrument ending balances on a per GL Account, per Organization Unit, per Product basis and post the results to Management Ledger. The following table summarizes the Management Ledger rows before and after the allocation has been run.

Row Type	GL Account	Branch	Product	Balance
Initial Load	Commercial Loan	1	—	\$1,000
Initial Load	Commercial Loan	2	—	\$2,000
Initial Load	Consumer Loan	1	—	\$3,000
Initial Load	Consumer Loan	2	—	\$4,000
Credit	Commercial Loan	1	—	(\$1,000)
Credit	Commercial Loan	2	—	(\$2,000)
Credit	Consumer Loan	1	—	(\$3,000)
Credit	Consumer Loan	2	—	(\$4,000)
Debit	Commercial Loan	1	Land	\$600
Debit	Commercial Loan	1	Construct ion	\$400
Debit	Commercial Loan	2	Land	\$1,400
Debit	Commercial Loan	2	Construct ion	\$600

Row Type	GL Account	Branch	Product	Balance
Debit	Consumer Loan	1	Auto	\$2,100
Debit	Consumer Loan	1	Personal	\$900
Debit	Consumer Loan	2	Auto	\$2,600
Debit	Consumer Loan	2	Personal	\$1,400

Note that:

1. The original Ledger balances are exactly offset by the allocation's Credit records
2. The allocation rule produces a balanced accounting transaction, i.e., a set of Debit and Credit records that sum to zero
3. The allocation rule's Debit records effectively "product align" the Management Ledger

Also note that it was not strictly necessary to supply any kind of GL Account or Organizational Unit filter in your allocation's Source specification. The reason that doing so is not strictly speaking required is that your rule is written to < Match Source & Driver > in the GL Account and Organizational Unit dimensions. Since only 2 GL Accounts (Commercial Loans and Consumer Loans) and 2 Organizational Units (Branch 1 and Branch 2) are found in the driver data (the instrument records), the Source is effectively constrained to these values even if you do not explicitly filter on them in the Source specification.

Example #2

Note that the exact same results from Example #1 above could have been obtained from a Static Driver rule:

- Source = Instrument ending loan balances
- Allocation Operator = "times 1.00"
- Debit = < Same as Source > for all dimensions
- Credit = < Same as Source > for Organization Unit and GL Account and N/A for Product

Since the exact same results could be obtained more simply, why use the Dynamic Driver rule type to perform Management Ledger "reclassifications"? The answer is that your instruments will not always reconcile to your General Ledger due to timing differences or other reasons. Your institution will have a threshold tolerance level for

such outages and tolerance levels will vary from institution to institution. Moreover, you may wish to product align expenses, fees, or other Management Ledger balances using instrument balances (or other measures) as proxies that would never reconcile to the Management Ledger balances.

The following initial data illustrates this second example where the instrument data does not reconcile to the General Ledger data:

Table	GL Account	Branch	Product	Balance	# of Loans
Ledger/Stat	Commercial Loan	1	—	\$1,000	—
Ledger/Stat	Commercial Loan	2	—	\$2,000	—
Ledger/Stat	Consumer Loan	1	—	\$3,000	—
Ledger/Stat	Consumer Loan	2	—	\$4,000	—
Loans	Commercial Loan	1	Land	\$603	214
Loans	Commercial Loan	1	Construction	\$399	659
Loans	Commercial Loan	2	Land	\$1,401	814
Loans	Commercial Loan	2	Construction	\$604	907
Loans	Consumer Loan	1	Auto	\$2,106	273
Loans	Consumer Loan	1	Personal	\$903	622
Loans	Consumer Loan	2	Auto	\$2,597	861
Loans	Consumer Loan	2	Personal	\$1,399	590

Note that total Commercial Loans under Branch #1 is now \$1,002 whereas the ledger balance is only 1,000. A simple Static Driver allocation that aggregated these balances to the Management Ledger would create one credit record for \$1,002 and two debit records totaling \$1,002. This would leave a net "unaligned" balance of \$2. The Dynamic Driver allocation, however, would still create a single credit record for Commercial Loans under Branch 1 in the Management Ledger in the amount of \$1,000; and it would still create a two debit records for Commercial Loans under Branch 1 totaling \$1,000.

The following table summarizes the data that the Dynamic Driver allocation would create given the original (Example #2) balances shown above:

Row Type	GL Account	Branch	Product	Balance
Initial Load	Commercial Loan	1	—	\$1,000
Initial Load	Commercial Loan	2	—	\$2,000
Initial Load	Consumer Loan	1	—	\$3,000
Initial Load	Consumer Loan	2	—	\$4,000
Credit	Commercial Loan	1	—	(\$1,000)
Credit	Commercial Loan	2	—	(\$2,000)
Credit	Consumer Loan	1	—	(\$3,000)
Credit	Consumer Loan	2	—	(\$4,000)
Debit	Commercial Loan	1	Land	\$601.80
Debit	Commercial Loan	1	Construction	\$398.20
Debit	Commercial Loan	2	Land	\$1,397.51
Debit	Commercial Loan	2	Construction	\$602.49
Debit	Consumer Loan	1	Auto	\$2,099.70
Debit	Consumer Loan	1	Personal	\$900.30
Debit	Consumer Loan	2	Auto	\$2,599.60
Debit	Consumer Loan	2	Personal	\$1,400.40

Management Ledger Allocations Using Statistics

Percent Distribution

Examples #1 and #2 above utilize instrument-level statistics as Driver data for rules whose Source is the Management Ledger (Ledger/Stat) and which Output to the Management Ledger. It is, of course, also possible to use the Management Ledger as Source, the Management Ledger as the source of Driver data, and the Management Ledger as your output target. Multiple examples of such rules can be found in this User

Guide. Two classic examples would be distributing Human Resource expenses to Cost Centers as a function of (Management Ledger resident) headcount statistics and distributing Occupancy expenses to Cost Centers as a function of (Management Ledger resident) square footage statistics (i.e., space occupied by the target cost centers).

Uniform

See Uniform Method under Driver Process Tab in Chapter 12: Allocation Specification for an example of the Uniform allocation method.

Simple

Your institution might obtain volumetric statistics for different kinds of activities either from your source systems or as memo accounts within your General Ledger. In either case, if you have such activity counts stored within your Management Ledger, you could build allocation rules to develop cost pools in order to subsequently build other rules to develop unit costs for each of your activities. For example, beyond general marketing expense, your institution might track advertising expense for Time Deposits under a single General Ledger account and record "Number of CD's Sold" for each Time Deposit product under a General Ledger memo account (likely stored in Ledger/Stat under Financial Element 10,000: Statistic). In this case, you could build a Dynamic Driver allocation rule that used the "Time Deposit Advertising Expense" GL Account as its Source, that divided by the "Number of CD's Sold" on a Percent to Total basis, and that debited a new, user-defined Financial Element 10,100: CD Acquisition Unit Costs (for this allocation, you would want to set your debit GL Account and Org Unit and all other Key Processing Dimension values to a dummy value the meaning of which was "N/A" or "Not Applicable"). In creating these unit costs, you might also have used instrument level data to dynamically obtain your "Number of CD's Sold" statistic. To accomplish this, your driver would look to the Record Count column (the Record Count column contains the number "1") of the Time Deposit table (FSI-D-TERM-DEPOSITS); would include a Data Element Filter that isolated new accounts; and would include a Hierarchy Filter on the Product dimension that included only the relevant Time Deposits products.

Under either approach, your result set would be a series of unit costs by Product for acquiring new CD's. Note that in this example, we assumed that the only costs included in acquiring new Time Deposits were the advertising costs directly related to Time Deposit products. In a more realistic example, you might first build a series of allocation rules that created a cost pool for this expense category; or you might have build a more complex Source expression to capture all of the relevant costs dynamically. Moreover, your institution might capture these unit costs within your General Ledger or might develop these costs in an external model. Regardless of how you acquired the unit costs, the following example demonstrates how you might utilize unit costs using a Dynamic Driver allocation rule under the "Simple" method.

Having acquired (or developed) your unit cost statistics, you could build a Dynamic Driver allocation rule as follows:

- Source: Record Count (1) from the Time Deposits table
- Allocation Operator: Multiplication
- Driver: CD Acquisition Unit Costs under Financial Element 10,100 using the Simple method
- Debit Outputs: A user-defined Acquisition Costs column within the Time Deposits table; set the Product dimension to < Match Source & Driver >; set all other Key Processing Dimensions to < Same as Source >
- Credit Outputs: None

Written in this fashion, the allocation engine will read each record, match it to the appropriate unit cost for the record's Product, and update the record with that appropriate unit cost.

Note: You might also set the Credit Output to aggregate total allocated costs in order to offset the Management Ledger GL Account or Cost Pool containing the original costs.

Note that in achieving the objective of distributing activity based costs, it is not strictly necessary to either build cost pools or unit costs. You might be able to simply define your cost pool dynamically within an allocation rule and allocate those costs directly to your instruments on a Percent to Total basis using appropriate instrument-level drivers (in this example, number of new accounts).

One reason you might want to take the more complicated path of actually developing unit costs is to be able to more readily report directly on those unit costs. Another reason you may prefer to deal directly with unit costs for your activities is that you have obtained those unit costs from an independent cost study or from an external Activity Based Costing application.

Finally, you might also decide that burdening new Time Deposits with their entire Acquisition Cost (1) in the month in which there were originated and (2) based on the current month's advertising costs was not economically "fair" or realistic. Instead, you might choose to develop unit costs reflecting the average of your YTD or "rolling 12" advertising expense; and you might choose to allocate not simply to new accounts but to all Time Deposit accounts. Choosing either of these methods would complicate the task of reconciling your total account level profitability back to your General Ledger, but choosing "economic" allocation methods for allocating expenses to the account level is common.

From Management Ledger to Instrument

As seen from some of the examples above, Dynamic Driver allocation rules can also update balance or rate columns at the instrument-level. The following example uses the Management Ledger as a Source while using an Instrument column as Driver in order

to post to the instrument level.

In this example, your objective is to distribute Item Processing expense from your Management Ledger to individual customer account records. If each of your individual customer account records for every demand deposit account carried a statistic called Number of Items Processed, that statistic would make an excellent Percent Distribution driver for Item Processing expense; your target column for such a rule would be a user-defined instrument column called Item Processing Expense. For this rule, you would likely utilize < Match Driver > for each Key Processing Dimension in your Outputs. Note that instrument level allocations can only alter the target balance or rate column. Instrument level allocations cannot alter Key Processing Dimension values; the instrument-level Key Processing Dimensions can only be used as lookup keys. If you were to use either < Same as Source > or < Match Source & Driver > on one dimension, your rule would be forced to exclude any instrument rows that did not match your Management Ledger for the dimension in which you chose < Match Source & Driver >.

Transaction Summary Tables

Each row within an Instrument table describes a unique customer account or position at a point in time. Instrument rows are "wide" or "horizontal", i.e., they contain potentially hundreds of columns containing attributes or measures. By contrast, Transaction Summary tables (each Instrument table has a corresponding Transaction Summary table) also describe unique customer accounts or positions at a point in time, but they include one or more (meaningful) dimension in their primary keys that are not populated in the corresponding Instrument table. In this sense, Instrument tables and Transaction Summary tables have a parent-child relationship; each row in an Instrument table may have one or more child rows in its corresponding Transaction Summary table; parent and child records share the same business date and "account identifier" (ID-NUMBER), but the "child" records vary in the "differentiating" dimension or dimensions. Each child row in a Transaction Summary table typically contains only two fact columns: Volume & Cost (you may, however, customize your Transaction Summary tables). Unlike Instrument tables, Transaction Summary tables are "tall" or "vertical".

One way of conceptualizing Transaction Summary tables is as vertical expressions of Instrument tables. Each numeric measure within an Instrument row could be expressed as a single row within a Transaction Summary table. Used in this fashion, you might define a Transaction Summary table to have the same primary key as its parent Instrument table with the addition of one additional Key Processing Dimension called "Measure Name". In this case, each member in the Measure Name dimension would correspond to a column in the parent instrument table. Note that Key Processing Dimensions are present in all of your business fact tables (Instrument tables, Transaction Summary tables, and the Management Ledger). When you actively utilize a Key Processing Dimension within a Transaction Summary table, you typically do not "actively" use that dimension at the instrument level (i.e., the value in the Instrument table would typically be "N/A"). Although this is not how Transaction Summary tables are intended to be used, it may help in understanding their structure.

Another way of conceptualizing Transaction Summary tables is as follows. At the instrument-level, the value of General Ledger account for a given row is meant to express the principal balance General Ledger account for that row. When you aggregate all instrument-level current book balances, the resulting total balance should reconcile to your General Ledger principal balance. You may, however, want to reconcile balances other than simply principal balances. You might wish to reconcile average book balances, par balances, deferred balances, interest income or expense balances, accrued interest receivable or payable balances, or fee balances. To accomplish this, you might store all of your balances in instrument records, but store selected balances in child Transaction Summary tables under their respective General Ledger accounts that will reconcile back to your General Ledger.

Mortgage Instrument Record (hundreds of additional columns not depicted)

Loan #	As-of-Date	GL Account	Book Balance	Par Balance	Interest Income	Fee Income
1	Jan, 2011	Mortgages, Book Balance	100,000	99,734	713	14

Associated Transaction Summary Child Records for Selected Balances

Loan #	As-of-Date	GL Account	Balance
1	Jan, 2011	Mortgages, Book Balance	100,000
1	Jan, 2011	Mortgages, Par Balance	99,734
1	Jan, 2011	Mortgages, Interest Income	713
1	Jan, 2011	Mortgages, Fee Income	14

The examples above are meant to help you understand the basic structure of Transaction Summary tables. The primary purpose of Transaction Summary tables, however, is to support bottom-up profitability models. For example, the "differentiator" between an Instrument table and its child Transaction Summary table might be a user-defined Key Processing Dimension called Transaction or Activity. If your source systems can provide account level volume statistics for different kinds of activities, you might develop unit costs for each activity in order to calculate account level costs for each activity. For example, imagine that you are able to collect the following account level statistics (counts over time, typically over a month) from your source systems:

- ATM Inquiries

- ATM Withdrawals
- ATM Deposits
- ATM Transfers, In Network
- ATM Transfers, Out of Network
- Other ATM Transactions
- Direct Deposits (Electronic)
- E-Banking Auto-transfers
- E-Banking Bill Pay
- E-Banking Transfers, In Network
- E-Banking Transfers, Out of Network
- Teller Inquiries
- Teller Withdrawals
- Teller Deposits
- Teller Transfers
- Checks Processed
- Overdrafts Processed
- Paper Statements Processed

You could store these volume statistics as user-defined columns within the CASA (Checking & Savings) instrument table. The listing of such activities (transaction summary counts) might number in the dozens or even in the hundreds, and each activity would require its own extended cost column (typically populated in "rate times volume allocations"). Moreover, when you have a large number of such activities, many activities might have a count of zero resulting in wasted storage in your instrument columns. Finally, if your list of activities changes over time, you would have to modify your CASA table to remove columns corresponding to activities you no longer use and you would have to modify your CASA table to add new columns whenever you introduced new activities.

Alternatively, you could store these volume statistics in the CASA Transaction Summary table utilizing a user-defined Key Processing Dimension called Activity to differentiate child records from parent records. The dimension members within the Activity dimension would correspond to your list of activities.

There are many other advantages to this Transaction Summary approach. First, since your Activity dimension would be a Key Processing Dimension, you could construct an Activity hierarchy. The Activity hierarchy might be useful in a reporting context, but more importantly, higher level rollup points within your Activity hierarchy are likely to be much more stable than individual activities (leaf members within the Activity dimension). For example, you may wish to construct an account level profitability model for demand deposits in which you want to calculate and report on higher level cost elements that have a channel orientation such as ATM Expense, Branch Expense, and E-Banking Expense. You might choose to store your volumes and compute your costs for each (leaf level) activity at the Transaction Summary level and then construct Instrument level columns for ATM Expense, Branch Expense, and E-Banking Expense. Using unit costs, you can construct allocation rules to compute your Transaction Summary levels costs. Subsequently, you can use other allocation rules to roll up your Transaction Summary levels costs to target columns within your Instrument table that correspond to rollup points in your Activity hierarchy. The sections that follow continue with the above example to describe such allocation rules.

Note that using this approach you will not pay any storage penalty if many activities frequently have a zero count for any given account (you will not have wasted instrument columns that have zero counts and zero costs; and Transaction Summary rows will only exist for non-zero counts). Also note that if you add new activities you need only construct a new Activity member and update your Activity hierarchy to indicate its rollup point. No further maintenance would be required either in terms of your data model or your allocation rules.

Updating Transaction Summary Tables

To update a Transaction Summary table with unit costs held in your Management Ledger, construct an allocation rule that uses the Volume column of your Transaction Summary table as its Source, that uses your Ledger/Stat statistics as your driver (using the Simple method), and that debits the Cost column in your Transaction Summary table. In your debit specification, use < Match Source & Driver > for the Activity dimension and < Same as Source > for every other Key Processing Dimension. Your (Ledger/Stat resident) unit cost drivers would likely be stored under a user-defined Financial Element (one unit cost for each Activity). Note, however, that for each Activity you might potentially have different unit costs for different products. If your statistics were stored under a single Financial Element but varied by Activity and by Product, you could construct your rule to < Match Source & Driver > for both Activity and Product.

Note that the sample list of Activities used in this discussion has a "Channel" orientation. You might wish to construct a smaller list of more fundamental Activities that vary by channel. For example, the list of activities presented above could be re-expressed as follows:

- Inquiries
- Debits Processed

- Credits Processed
- Other Transactions
- Reversals Processed
- Statements Processed

Under this smaller set of Activities, you could choose to store your unit costs in Ledger/Stat by Activity and by Channel (another user-defined Key Processing Dimension). In this scenario, you would define your Transaction Summary table to utilize both Activity and Channel to differentiate it from its parent Instrument table.

Note that this example uses a Dynamic Driver allocation rule to update the Transaction Summary table. In this example and in examples of updates to Instrument tables, you could also use Static Driver Table allocation rules. One advantage to the Static Driver Table kind of rule is that its drivers are static. Even if your unit costs are the same from month-to-month, they generally need to be stored for every month in Ledger/Stat (although you can store your unit costs under a fixed month, say, January and then hard code your allocation rules to always use the January balance). For additional examples of using Static Driver Table allocation rules, see Using Static Table Drivers in Chapter 13: Static Table Driver.

Updating Instrument Tables from Transaction Summary Tables

Once you have run your allocation rule to update the Cost column in your Transaction Summary table, run other allocation rules to aggregate costs to the instrument level. You will need one allocation rule for each instrument-level target column, but each of these aggregation allocations would be structurally very similar. For example, to aggregate the costs associated with each of the ATM-related activity based cost in your Transaction Summary table, build a Static Driver allocation rule that uses the Transaction Summary table's Cost column as your Source, that multiplies by 1.00 in the Allocation Operator, and that debits the ATM Expense column in your target instrument table. The Source specification would also utilize the ATM Expense rollup point within your Activity hierarchy. Each subsequent allocation would have the same structure, but would vary its hierarchy rollup point filter in its Source specification and its Instrument target column in its debit specification.

Examples of Static Driver Table Allocations

See Using Static Table Drivers in Chapter 13: Static Table Driver.

Examples of Lookup Driver Table Allocations

See Chapter 14: Lookup Table Driver for examples of using Lookup Driver Table allocation rules.

Static Table Driver

Overview

This chapter describes Static Table Driver functionality. Specifically, this chapter will cover:

- Static Table Driver Summary & Detail Screens
- Navigation within the Summary Screen
- Navigation within the Detail Screen
- Using Static Table Drivers

Summary & Detail Screens

Upon initially navigating to Profitability Management > Rule Specification > Static Table Driver, a summary screen is displayed showing a set of Static Table Driver rules. Using search criteria, you can control the set of rules that are displayed. When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Static Table Driver summary screen, the rules stored within your current default Folder are presented in a summary grid. The Static Table Driver summary screen has two containers: Search and Static Table Driver.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences for Profitability Management. You may select a different Folder or you may remove the Folder constraint entirely by selecting the "blank" Folder,

i.e., no Folder. You may also search by a rule's Name or Description.

Search Control



You may search for Static Table Driver rules by Folder, Name, or Description. Enter your desired search criteria and click on the Search control.

Reset Control



Restores the default Folder, removes any Name or Description constraint you may have specified, and refreshes the screen.

Static Table Driver Container

The Static Table Driver container presents a grid containing all of the Static Table Driver rules that meet your search criteria. The Static Table Driver summary grid offers several controls that allow you to perform different functions when a rule is selected.

To select a rule, click on a check box in the first column of the grid. More than one rule can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the rule.

You may select or deselect all of the Static Table Driver rules in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add



Clicking on the Add control begins the process of building a new Static Table Driver rule. The Add control is disabled if any rows in the grid have been selected.

View



Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of a Static Table Driver rule on a read-only basis. The View control is only enabled when a single rule has been selected.

Edit



Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Static Table Driver rule. The Edit control is only enabled when a single rule has been selected.

Delete



Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Static Table Driver(s) you have selected. OFSAAI will not allow you to delete Static Table Driver rules which have any dependencies (see View Dependencies below).

View Dependencies



Clicking on the View Dependencies control generates a report on any Allocation rule that depend on the Static Table Driver rule you have selected. The View Dependencies control is only enabled when a single rule has been selected.

Static Table Driver Summary Grid

The following columns categorize each allocation rule in the summary grid:

- Name
- Creation Date
- Created By
- Description
- Last Modified Date
- Modified By
- Access Type
- Folder

Name	Creation Date	Created By	Description	Last Modified Date	Modified By	Access Type	Folder
2.Static	25-Nov-09 15:33:01	PFTUSER		25-Nov-09 15:33:01	PFTUSER	Read / Write	GUISEG
BIG TABLE FOR TRANS	09-Nov-09 17:39:51	PFTUSER	Table defined on Org COA Product	09-Nov-09 18:30:44	PFTUSER	Read / Write	GUISEG
Demo_ST_Testing	25-Nov-09 14:41:09	PFTUSER	Demo for ST testing	26-Nov-09 12:43:11	PFTUSER	Read / Write	GUISEG
Pftreat	10-Dec-09 11:44:25	PFTUSER		10-Dec-09 11:44:25	PFTUSER	Read / Write	GUISEG
Sample Center to Center	10-Dec-09 11:21:08	PFTADMINBRAMAN	Distribute from Company A to Cost Centers 1 and 2[...]	10-Dec-09 11:44:47	PFTADMINBRAMAN	Read / Write	GASEG
Sample Static Table Driver	09-Dec-09 11:43:43	PFTADMINBRAMAN	Typical static table driver with Organizational Un[...]	10-Dec-09 11:49:04	PFTADMINBRAMAN	Read / Write	GASEG
TBB Post to TRXNS	10-Dec-09 01:46:16	PFTADMINBRAMAN	Update Transactions Summary Table costs using a st[...]	10-Dec-09 02:07:09	PFTADMINBRAMAN	Read / Write	GASEG
TEST STATIC	01-Dec-09 10:55:48	PFTUSER		01-Dec-09 10:55:48	PFTUSER	Read / Write	GUISEG
TEST STATIC 1	01-Dec-09 11:40:32	PFTUSER		01-Dec-09 11:40:32	PFTUSER	Read / Write	GUISEG
TESTvalidation	07-Dec-09 09:50:45	PFTUSER		07-Dec-09 09:50:45	PFTUSER	Read / Write	GUISEG
TTB Org to Prod	21-Nov-09 13:59:22	PFTADMINBRAMAN	Allocate from 10 Orgs to 2 Products	21-Nov-09 14:29:26	PFTADMINBRAMAN	Read / Write	GASEG
TTB OrgProd to Common	21-Nov-09 14:51:43	PFTADMINBRAMAN		21-Nov-09 15:01:23	PFTADMINBRAMAN	Read / Write	GASEG
TTB Single Key	20-Nov-09 13:22:39	PFTUSER	16 Org Units as single key leaves	21-Nov-09 02:25:58	PFTUSER	Read / Write	GASEG
TTB Single Target	20-Nov-09 13:25:51	PFTUSER	10 Org Units summing to 100%	04-Dec-09 14:34:08	PFTADMINBRAMAN	Read / Write	GASEG
abc123	06-Nov-09 15:00:07	PFTUSER		23-Nov-09 14:43:33	PFTUSER	Read / Write	GUISEG
check1	03-Dec-09 10:47:50	PFTUSER		03-Dec-09 10:48:26	PFTUSER	Read / Write	GUISEG
chk1	04-Dec-09 14:46:26	PFTUSER		04-Dec-09 14:46:26	PFTUSER	Read / Write	GUISEG
chihierarchy	04-Dec-09 10:12:59	PFTUSER		04-Dec-09 10:26:14	PFTUSER	Read / Write	GUISEG
hierarchy_tab	24-Nov-09 22:49:38	PFTUSER		24-Nov-09 22:49:38	PFTUSER	Read / Write	GUISEG
sfrad	07-Dec-09 12:04:52	PFTUSER	sdfad'9	07-Dec-09 12:04:52	PFTUSER	Read / Write	GUISEG
single_tar_force_100	24-Nov-09 22:33:00	PFTUSER		24-Nov-09 22:33:00	PFTUSER	Read / Write	GUISEG
test122	04-Nov-09 17:51:19	PFTUSER	u	27-Nov-09 14:56:09	PFTUSER	Read / Write	GUISEG
testformull	25-Nov-09 09:41:36	PFTUSER		25-Nov-09 09:43:28	PFTUSER	Read / Write	GUISEG

Name

Displays the rule's short name. Performing a "mouse-over" on a Name displays the Static Table Driver rule's description and system identifier.

Creation Date

Displays the date and time at which a rule was created.

Created By

Displays the name of the user who created a rule.

Description

Displays the rule's Description.

Last Modified Date

Displays the date and time at which a rule was last modified.

Modified By

Displays the name of the user who last modified a rule.

Access Type

Displays the "Read/Write" or "Read Only" property of a Static Table Driver rule. Only the creator of a rule may change its Access Type.

Folder

Displays the name of the Folder in which a Static Table Driver rule is stored.

Navigation within the Detail Screen

When you Add, Edit, or View a Static Table Driver rule, the Static Table Driver Detail screen is displayed.

In addition to Name, Description, Folder, and Access Type, the definition of a Static Table Driver includes Key Leaves, a Target Leaf, and coefficients values. Once a Static Table Driver has been defined and saved, you will generally only edit an existing rule to update your driver coefficients. You may, however, redefine all aspects of a Static Table Driver rule when you enter the detail screen in Edit mode.

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Static Table Driver Functionality

Static Table Drivers are used in conjunction with Allocation rules for two purposes:

- To distribute balances in the Management Ledger table
- To perform a lookup table function against instrument tables

Distribution with the Management Ledger

Static Driver Table Allocation rules that distribute balances in the Management Ledger table function in a way that is similar to Dynamic Driver allocation rules. In your Debit or Credit outputs

- Key Leaves function similarly to Dynamic Driver allocation rules that utilize < Match Source & Driver >
- Target Leaves function similarly to Dynamic Driver allocation rules that utilize < Match Driver >

Instrument Level Update

Static Driver Table Allocation rules perform a lookup table function against an instrument table to match dimension values for each instrument row against the Key Leaf values you define in your Static Table Driver rule. Where matching rows are found, the allocation performs an arithmetic operation combining source balance columns and a coefficient value you specify in order to update a result column.

Static Table Driver Container

Specify the Static Table Driver rule's Name and Description, select a Folder in which the Static Table Driver rule is to be stored, and specify whether you want the Static Table Driver rule to be "Read/Write" or "Read Only" (Access Type). Naming your Static Table Driver rule is required before it can be saved. Default values for Folder and Access Type are stored in Application Preferences for Profitability Management.

Static Table Driver Definition Container

The first thing you must do when creating a new Static Table Driver is to define its structure. Once a Static Table Driver has been defined, typical maintenance is usually limited to updating driver coefficients. The most critical aspects of a Static Table Driver's structural definition are its:

- Key Leaf dimensions
- Key Leaf values for each Key Leaf
- Target Leaf dimension
- Mapping of Key Leaf values and Target Leaf values
- Static Table Driver Coefficients

You need not specify both a Key Leaf and a Target Leaf, but you must specify at least one or the other.

Key Leaves

For both Management Ledger and Instrument allocations, Key Leaves perform a lookup function. Rows from the Source of the Allocation rule are joined with the Key Leaf values from the Static Table Driver. If an input row leaf value matches a Key Leaf value for the first Key Leaf dimension specified in the Static Table Driver, the row is then checked against the second Key Leaf values, and so on. If a match is found for every Key Leaf dimension, the row is processed by the Allocation rule. Profitability Management supports a maximum of 3 Key Leaf dimensions.

Target Leaf

Target leaves are used only in allocations that distribute to the Management Ledger. Distribution allocations can be viewed as first performing a lookup on one or more Key Leaves. When a match is found for each Key Leaf dimension, the matching input row's amount is distributed to all dimension values specified as Target Leaves. This means that data is added to the Management Ledger for each dimension member value specified as a Target Leaf. The leaf values specified in the Allocation rule's Debit typically use the < Same As Source > macro for all Key leaf dimensions and use the < Same As Table > macro for the Target Leaf dimension (very similar to the < Same as Driver > macro used in Dynamic Driver allocation rules).

Coefficients

You must specify coefficient values for every Static Table Driver rule. A part of the coefficient specification process is to label each distinct combination of each of your Key Leaf values and your Target Leaf values as either "enabled" (has a coefficient) or "disabled" (does not have a coefficient). Where only Key Leaves are used, you must label each distinct combination of each of your Key Leaf values as either "enabled" (has a coefficient) or "disabled" (does not have a coefficient).

For Static Table Drivers with a Target Leaf Dimension

For a Static Table Driver that uses a Target Leaf dimension, you must supply one coefficient value for each distinct "enabled" combination of each of your Key Leaf values and your Target Leaf values. Again, Static Table Drivers that use a Target Leaf dimension are only supported for Management Ledger allocation rules.

Target Leaf coefficient values represent distribution statistics. You would typically use these statistics on a Percent-to-Total basis. Static Table Drivers support both the Percent-to-Total method and the Simple method.

The definition of the Target Leaf dimension may be preceded by the definition of one or more Key Leaf dimensions. Key Leaves are never required unless there is no Target Leaf defined. Where Key Leaves are present, they operate as lookup keys as described above. For a Static Table Driver that uses a Target Leaf dimension, the Key leaves function analogously to the Dynamic Driver allocation function of < Match Source & Driver > and the Target Leaf functions analogously to the Dynamic Driver allocation function of < Match Driver >.

For Static Table Drivers with Key Leaf Dimensions But No Target Leaf

For Static Table Drivers that do not use a Target Leaf dimension, you must supply one coefficient value for each distinct "enabled" combination of each of your Key Leaf values. Static Table Drivers that use Key Leaves but do not use a Target Leaf can support both distributive Management Ledger allocation rules and Instrument level update rules.

For an Instrument level update rule using a Static Table Driver, the Key Leaves function as lookup keys and the coefficients are used as arithmetic factors in updating a target column in an instrument table. For Management Ledger allocation rules, the Key Leaves function analogously to the Dynamic Driver allocation function of < Match Source & Driver >.

Creating a New Static Table Driver – Sample Workflow

This section describes a typical workflow for defining a Static Table Driver rule.

Create a New Key Leaf

Start the setup process by defining a Key Leaf dimension.

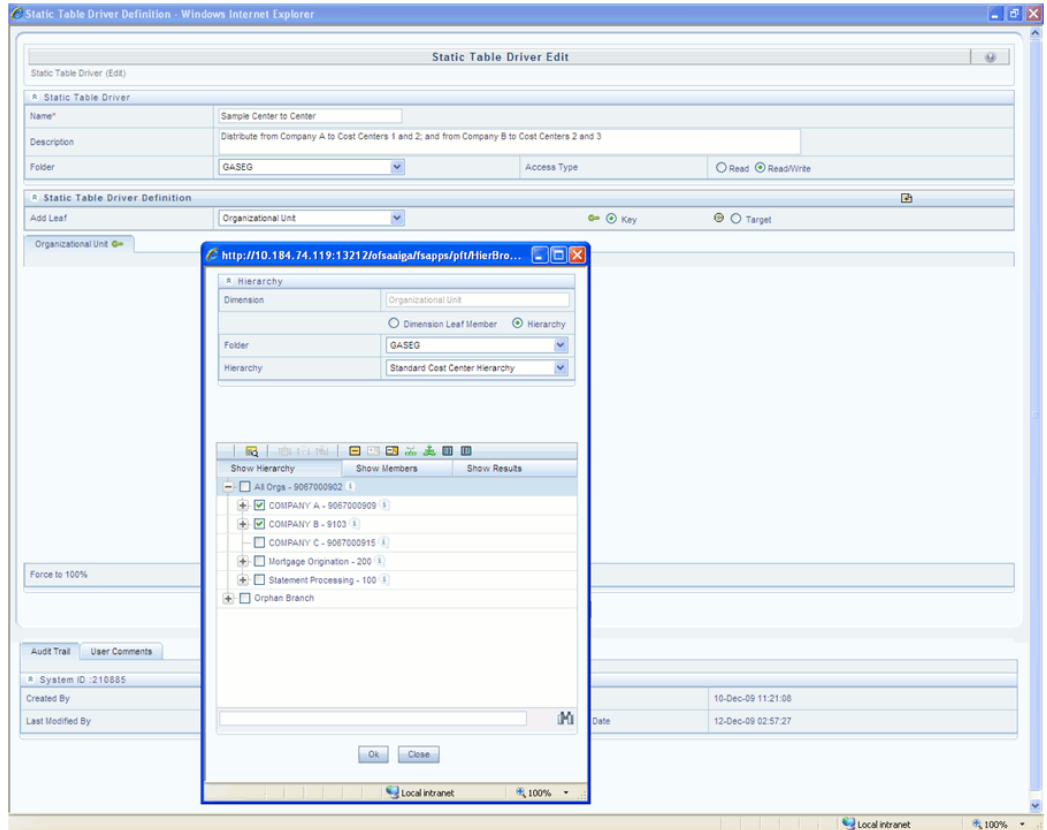
- Choose the dimension you want to define as a Key Leaf from the drop down list box

- Click on the Key radio button
- Click on the Add control (+)

A tab with your first Key Leaf dimension appears. Click on the Hierarchy Browser ellipses (...) that appear on your first Key Leaf tab. The Hierarchy Browser defaults to a list of leaves for the Key Leaf dimension you have chosen (the radio button selector near the top of the browser window defaults to Dimension Leaf Member). You may scroll up and down to find the leaf member or leaf members you want. You may also search for a dimension member's name (short description) using the binoculars at the bottom of the browser window. Additional search functionality is provided by the Search control within the browser. This additional functionality allows you to search by Dimension Member Dimension member, Name, or Code. Once you have selected the Key Leaf values you want, click OK.

You may also define Key Leaf values to be rollup members within a hierarchy. To select hierarchy rollup point members, click the Hierarchy radio button near the top of the browser window and then search for the hierarchy you wish to use. Once your chosen hierarchy is displayed within the browser window, navigate into the hierarchy until you have found the rollup points you want. Select the value or values you want and then click OK.

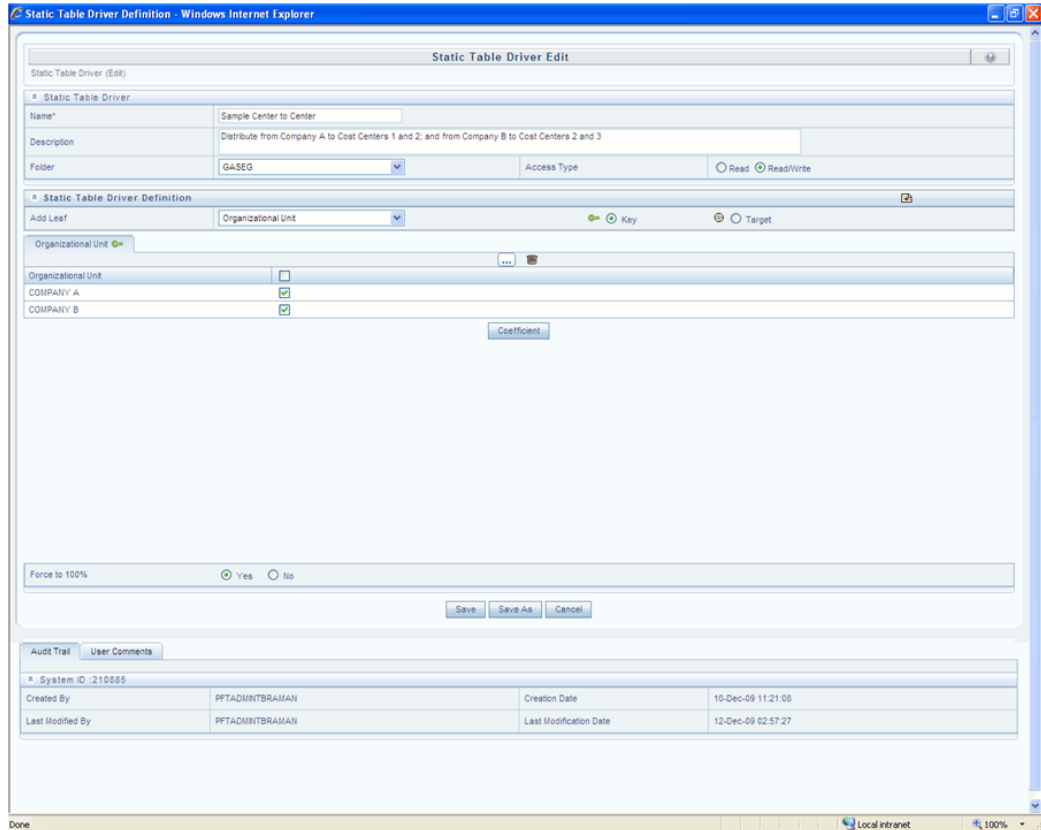
Once you have clicked on OK within the Hierarchy Browser window, that window closes and your Static Table Driver detail screen is refreshed to display your chosen Key Leaf values. At this point, you must indicate which of your Key Leaf values you want to include in your specification. Typically, for your first Key Leaf, you will want to include every member you selected from the Hierarchy Browser. You may click the Select checkbox next to each value or you may click on the "column header level" checkbox to select all values.



Note: When you select hierarchy rollup points, all of the members you select must come from the same level within the underlying hierarchy. Hierarchy Filters, which may include leaves and rollup nodes from different levels within a hierarchy, are not supported in Static Table Driver rules.

You may now repeat this process to add a second or third Key Leaf if desired. If no additional Key Leaves are needed, you may proceed to either (1) adding a Target Leaf dimension or (2) providing coefficients for your chosen Key Leaf value(s).

Note: Target leaves are used only in allocations that distribute to the Management Ledger.

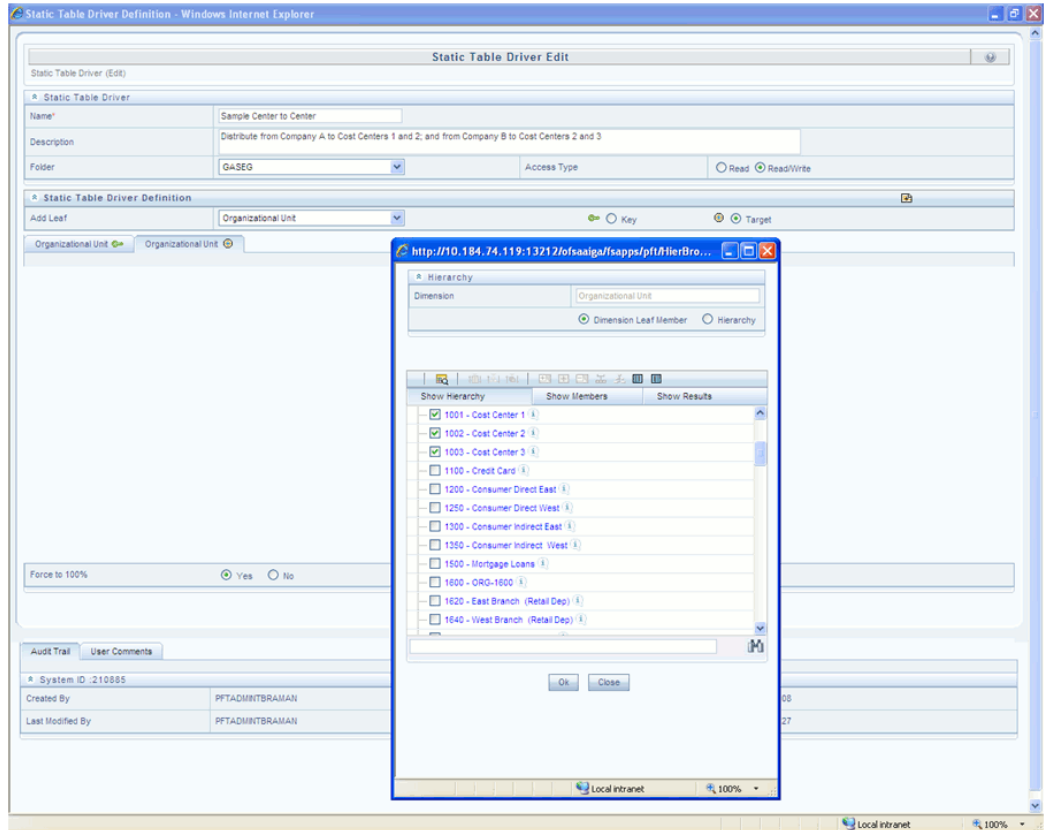


Creating a New Target Leaf

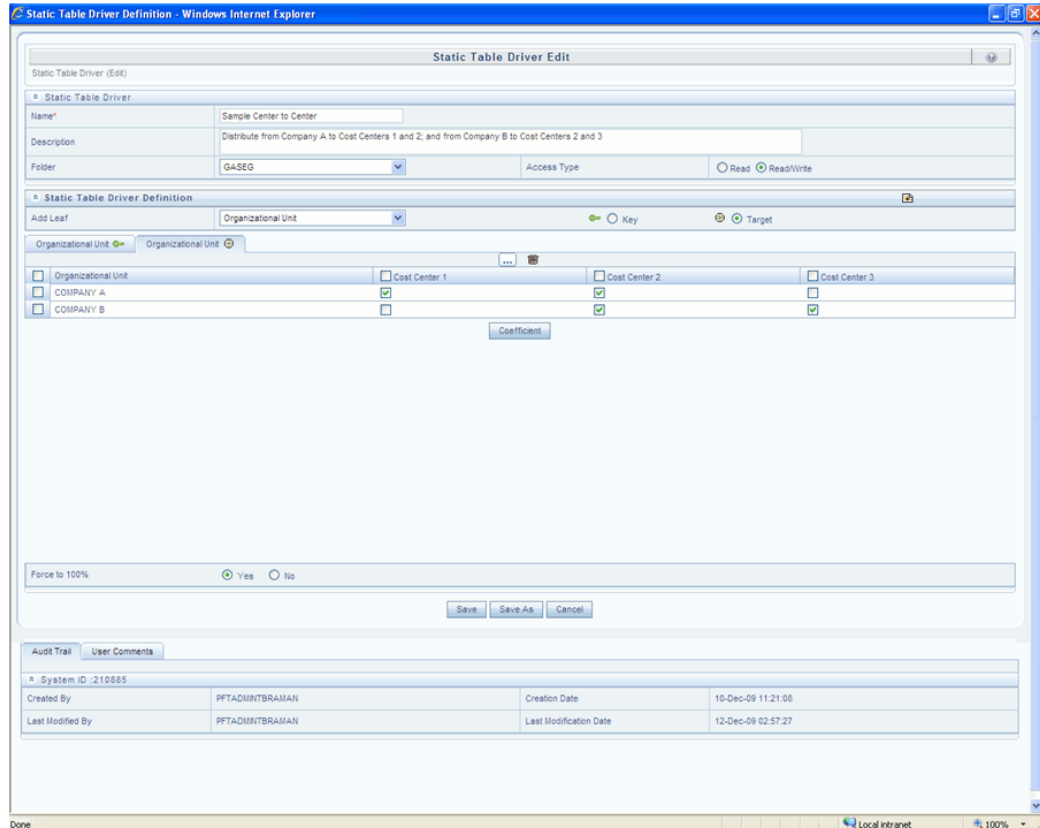
Continuing with the typical setup workflow, the following narrative assumes that you have added only one Key Leaf dimension.

- Choose the dimension you want to define as a Target Leaf from the drop down list box
- Click on the Target radio button
- Click on the Add control (+)

A tab displaying your Target Leaf dimension appears. Click on the Hierarchy Browser ellipses (...) that appear on your Target Leaf tab. Select the Target Leaf values you want (the selection process is identical to the process of selecting Key Leaf values described above) and click OK.



Once you have clicked on OK within the Hierarchy Browser window, that window closes and your Static Table Driver detail screen is refreshed to display your chosen Target Leaf values. However, while the screen still displays your Key Leaf values as rows, it now displays your Target Leaf values as columns so that you can see a checkbox for each combination of Key Leaf value and Target Leaf value. At this point, you must indicate which combinations of Key Leaf value and Target Leaf values you want to include in your Static Table Driver definition. You may frequently want to include every combination of Key Leaf value and Target Leaf value. In this case, you may select every combination individually by clicking on the selection checkbox next to each combination in the matrix; or you may select an entire column of values; or you may select an entire row of values; or you may select the entire grid. Clicking any checkbox a second time toggles between "selected" and "de-selected".



For other uses, you may want only a subset of all possible combinations of Key Leaf values and Target Leaf values. For example, you may wish to allocate a series of Management Ledger balances from cost center to cost center. If you wanted to allocate balances from Company A to Cost Centers 1 and 2; and if you wanted to allocate balances from Company B to Cost Centers 2 and 3, then your

- Key Leaf dimension would be Organizational Unit
- Key Leaf values would be Company A and Company B
- Target Leaf dimension would also be Organizational Unit
- Target Leaf values would be Cost Centers 1, 2, & 3
- Enabled combinations would be A-1, A-2, B-2, and B-3

Defining Coefficient Values

Continuing with the typical setup workflow, the following narrative assumes that you have now added one Key Leaf dimension and one Target Leaf dimension, have chosen your Key leaf dimension values and your Target Leaf dimension values, and have enabled your desired combinations of Key Leaf and Target Leaf values. These steps are the normal setup steps required when building a new rule. The last remaining step,

defining coefficient values, is the point at which a typical maintenance cycle begins. You will normally not modify the basic setup of a Static Table Driver once it is in production.

Click on the Coefficient control. The detail screen now displays a data entry grid. The cells within this grid that are enabled are those you chose as valid Key Leaf value and Target Leaf value combinations. Any combinations you have not included are disabled for coefficient data entry.

The screenshot shows the 'Static Table Driver Edit' interface. The 'Static Table Driver' section includes:

- Name: Sample Center to Center
- Description: Distribute from Company A to Cost Centers 1 and 2; and from Company B to Cost Centers 2 and 3
- Folder: GASEG
- Access Type: Read (selected), Read/Write

 The 'Static Table Driver Definition' section includes:

- Add Leaf: Organizational Unit
- Radio buttons: Key (selected), Target

 The data grid below shows:

Organizational Unit	Cost Center 1	Cost Center 2	Cost Center 3
COMPANY A	20	100	
COMPANY B		80	120

 At the bottom, the 'Force to 100%' section has the 'Yes' radio button selected. The 'Audit Trail' section shows:

System ID	Created By	Creation Date
210885	PFTADMINBRAMAN	10-Dec-09 11:21:08
Last Modified By	Last Modification Date	
PFTADMINBRAMAN	10-Dec-09 11:31:25	

You may toggle back and forth between specification of valid combinations and entry of coefficient values (Coefficient / Map). You may also return to your Key Leaf dimension tab and modify its definition by adding or removing values. More generally, you are free to navigate at any time between any of your Key Leaf definitions, your Target Leaf definition, your "enabled combinations" definitions, and your coefficient values.

Deleting Key Leaf or Target Leaf Dimensions

Select the Delete control to remove any Key Leaf or Target Leaf dimension.

Force to 100%

Select either "Yes" or "No" for the value of the "Force to 100%" allocation method (see radio buttons near the bottom of the detail screen). The default value for "Force to 100%" is "Yes".

Static Driver Table rules are similar in many ways to Dynamic Driver rules. Select "Yes" for the value of Force to 100% when you want to perform a distribution using non-normalized statistics such as headcount, square footage of occupancy, etc. If you are using a normalized set of driver statistics (statistics that sum to 1.00 or 100%) or if you are combining activity counts with activity rates, you need not use Force to 100%.

When you use Force to 100% in a Static Table Driver rule, balances will be distributed on a percent-to-total basis within each row visible on your Coefficient data entry grid.

For example, for the above coefficient values, balances would be distributed from Company A to Cost Center 1 and Cost Center 2 in proportions of 10% and 90%; and balances would be distributed from Company B to Cost Center 2 and Cost Center 3 in proportions of 40% and 60%.

Save

Click on Save to validate and save your rule.

Save As

Click on Save As to make a copy of the rule you are working on.

Cancel

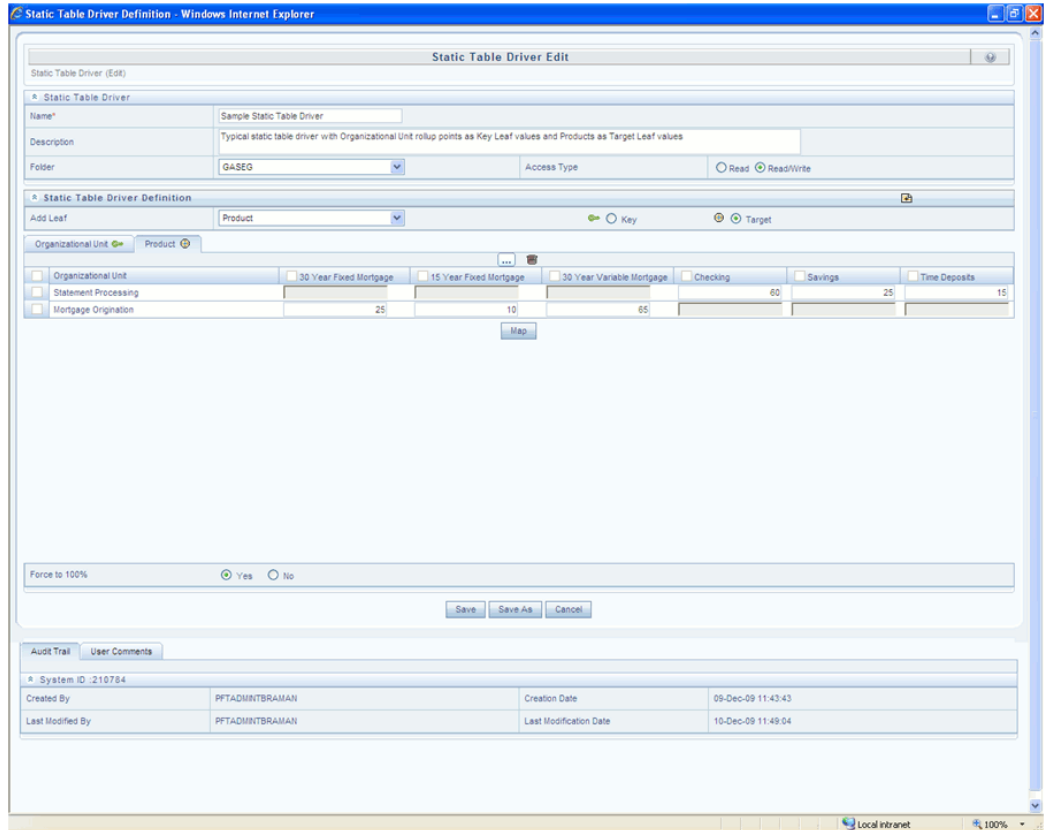
Click on Cancel to close the rule without saving any changes you may have made. This control is only active when you are in Edit mode.

Using Static Table Drivers

Static Table Drivers are declared as drivers in the Driver process tab for allocation rules of the type Static Driver Table (see Chapter 12: Allocation Specification).

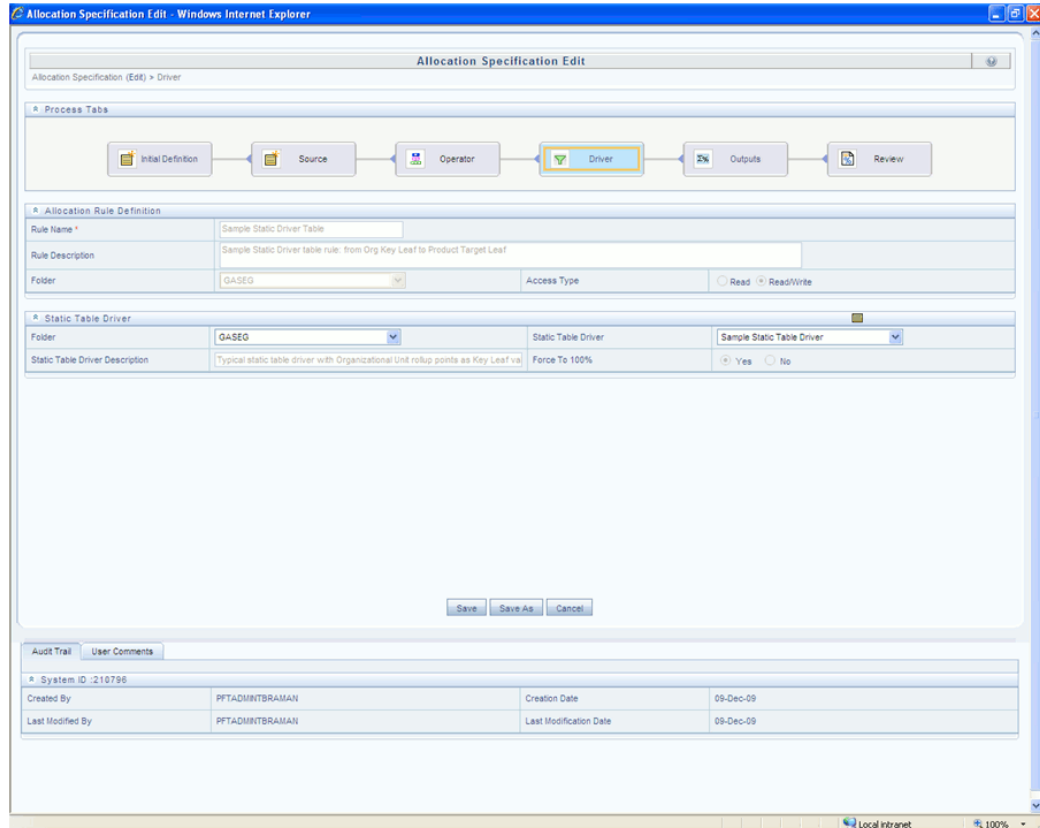
Static Drivers Table allocation rules are similar in many ways to Dynamic Driver allocation rules. Both are used to distribute balances, but while Dynamic Driver allocation rules obtain their driver data directly from your business data, Static Driver Table allocation rules obtain their driver data from a Static Table Driver rule.

In the example that follows, your goal is to "product align" your Management Ledger data (your initial General Ledger data is aligned to Organizational Unit and to General Ledger Account, but not to Product). You need to write an allocation rules that distributes expenses within each cost center to Product. In this example, you are focusing on expenses incurred in two rollup points within your Organizational Unit hierarchy: Mortgage Origination (a rollup point of multiple regional origination centers) and Statement Processing (a rollup point of multiple statement processing centers).



Your cost studies have told you that 25% of mortgage origination expense is attributable to your 30 Year Fixed Mortgage product, 10% to your 15 Year Fixed product, and 65% to your 30 Year Variable product. At the same time, historical balance reports tell you that 60% of your retail deposits are Checking, 25% are Savings, and 15% are Time Deposits. On the assumption that balance ratios are a good way to distribute Statement Processing expense, you decide to use a 60-25-15 split.

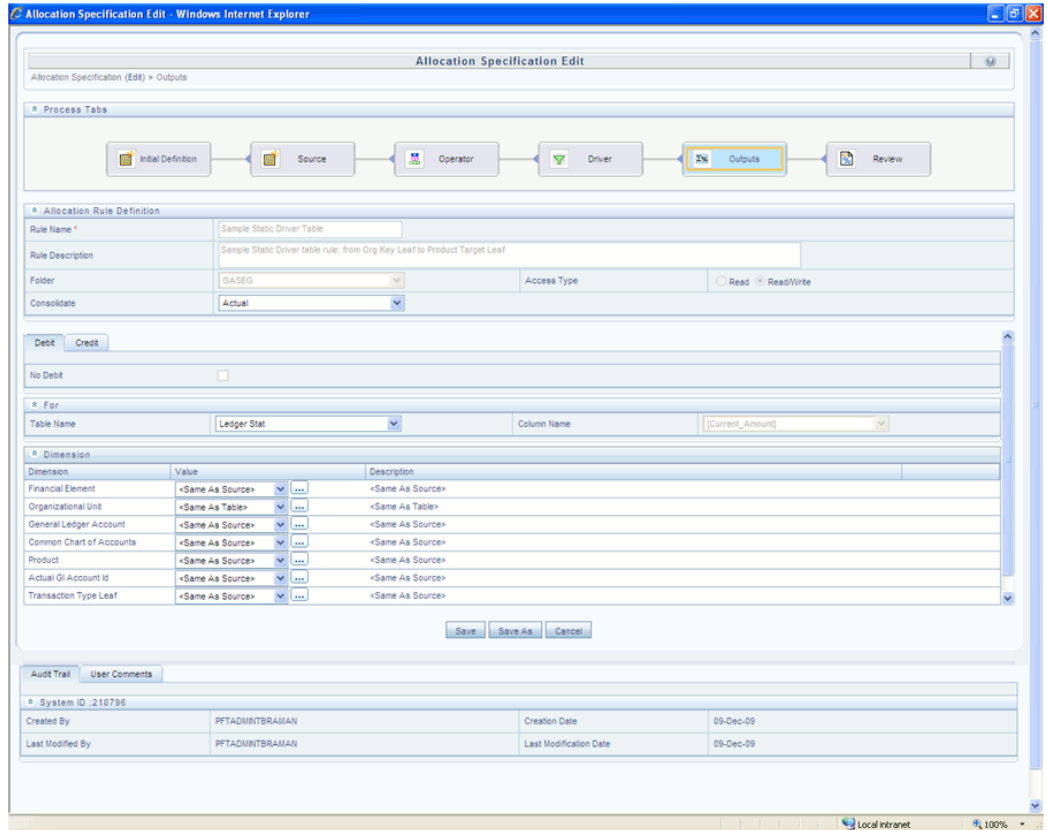
To build this allocation, start by constructing a Static Table Driver rule that uses an Organizational Unit Key Leaf and a Product Target Leaf. Select the Mortgage Origination and Statement Processing rollup points from your organizational hierarchy for your Key Leaf values. Select the 3 mortgage products plus the Checking, Savings, and Time Deposits products as your Target Leaf values. Finally, enable the appropriate combinations of Key Leaf and Target Leaf and enter your coefficient values.



Next, build a new Static Driver Table allocation rule. In the Driver tab, select the Static Table Driver you just built. In the Source tab, constrain the General Ledger Account dimension with a rollup point whose meaning is Total Non Interest Expense; alternatively, you might specify Financial Element leaf value 457 – Non Interest Expense.

Note that you could specify an Organizational Unit constraint in your Source specification narrowing the source data down to just the Mortgage Origination and Statement Processing rollup points. Doing so is not strictly necessary as the allocation rule will insist on matching of Source cost centers and Driver cost centers and you have already constrained the Driver cost centers in your Static Table Driver rule.

In your allocation Output Debit, specify < Same as Table > for the Organizational Unit dimension and specify < Same as Source > for every other dimension.



Note the similarity between the Static Driver Table allocation rule defined above and a very similar allocation built using dynamic drivers. If the statistics we used in the Static Table Driver were available from an external source that we could load every month to the data model, we could achieve the same results with a Dynamic Driver allocation rule. The Output Debits in the table below show the values you would use for the two rule types.

Dimension	Dynamic Driver Allocation Debit Definition	Static Table Driver Leaf Type	Static Driver Table Allocation Debit Definition
Organizational Unit	< Match Source & Driver >	Key Leaf	< Same as Source >
General Ledger Account	< Same as Source >	Not defined	< Same as Source >
Product	< Match Driver >	Target Leaf	< Same as Table >

Lookup Table Driver

Overview

This chapter describes Lookup Table Driver functionality. Specifically, this chapter will cover:

- Lookup Table Driver Summary & Detail Screens
- Navigation within the Summary Screen
- Navigation within the Detail Screen
- Using Lookup Table Drivers

Summary & Detail Screens

Upon initially navigating to Profitability Management > Rule Specification > Lookup Table Driver, a summary screen is displayed showing a set of Lookup Table Driver rules. Using search criteria, you can control the set of rules that are displayed. When you Add, Edit, or View a rule, a detail screen is displayed.

Navigation within the Summary Screen

When you first navigate to the Lookup Table Driver summary screen, the rules stored within your current default Folder are presented in a summary grid. The Lookup Table Driver summary screen has two containers: Search and Lookup Table Driver.

Search Container

Your default Folder functions as a search constraint. The value of your default Folder is set in Application Preferences for Profitability Management. You may select a different Folder or you may remove the Folder constraint entirely by selecting the "blank" Folder,

i.e., no Folder. You may also search by a rule's Name or Description.

Search Control



You may search for Lookup Table Driver rules by Folder, Name, or Description. Enter your desired search criteria and click on the Search control.

Reset Control



Restores the default Folder, removes any Name or Description constraint you may have specified, and refreshes the screen.

Lookup Table Driver Container

The Lookup Table Driver container presents a grid containing all of the Lookup Table Driver rules that meet your search criteria. The Lookup Table Driver summary grid offers several controls that allow you to perform different functions when a rule is selected.

To select a rule, click on a check box in the first column of the grid. More than one rule can be selected at a time but this will cause some of the controls to become disabled. Clicking on a checkbox a second time de-selects the rule.

You may select or deselect all of the Lookup Table Driver rules in the summary grid by clicking on the check box in the upper left hand corner of the summary grid directly to the left of the Name column header.

Add



Clicking on the Add control begins the process of building a new Lookup Table Driver rule. The Add control is disabled if any rows in the grid have been selected.

View



Selecting a single row out of the grid enables the View control. Clicking on the View control allows you to view the contents of a Lookup Table Driver rule on a read-only basis. The View control is only enabled when a single Lookup Table Driver rule has

been selected.

Edit



Selecting a single row out of the grid enables the Edit control. Clicking on the Edit control allows you to modify a previously saved Lookup Table Driver rule. The Edit control is only enabled when a single Lookup Table Driver rule has been selected.

Delete



Selecting one or more rows out of the grid enables the Delete control. Clicking on the Delete control deletes the Lookup Table Driver(s) you have selected. OFSAAI will not allow you to delete Lookup Table Driver rules which have any dependencies (see View Dependencies below).

View Dependencies



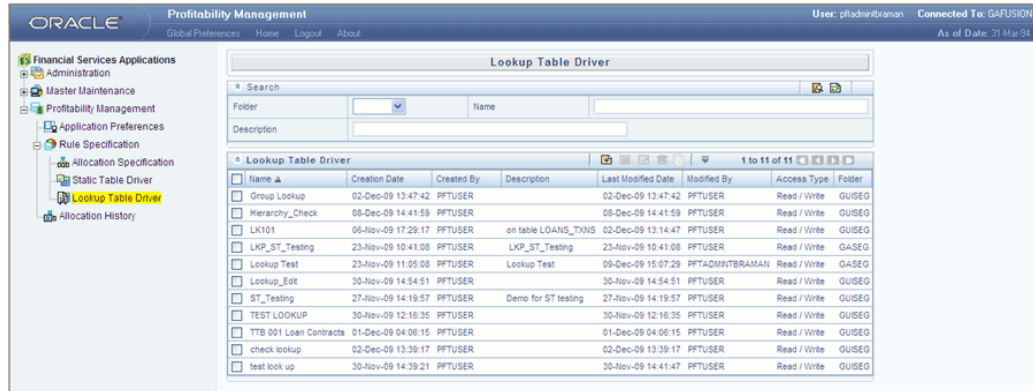
Clicking on the View Dependencies control generates a report on any Allocation rules that depend on the Lookup Table Driver rule you have selected. The View Dependencies control is only enabled when a single rule has been selected.

Lookup Table Driver Summary Grid

The following columns categorize each allocation rule in the summary grid:

- Name
- Creation Date
- Created By
- Description
- Last Modified Date
- Modified By
- Access Type
- Folder

Lookup Table Driver Summary Screen



Name	Creation Date	Created By	Description	Last Modified Date	Modified By	Access Type	Folder
Group Lookup	02-Dec-09 13:47:42	PFTUSER		02-Dec-09 13:47:42	PFTUSER	Read / Write	GUSEG
Hierarchy_Check	08-Dec-09 14:41:59	PFTUSER		08-Dec-09 14:41:59	PFTUSER	Read / Write	GUSEG
LK101	06-Nov-09 17:29:17	PFTUSER	on table LOANS_TXNS	02-Dec-09 13:14:47	PFTUSER	Read / Write	GUSEG
LKP_ST_Testing	23-Nov-09 10:41:08	PFTUSER	LKP_ST_Testing	23-Nov-09 10:41:08	PFTUSER	Read / Write	GASEG
Lookup_Test	23-Nov-09 11:05:08	PFTUSER	Lookup Test	09-Dec-09 15:07:29	PFTADMINBRAMAN	Read / Write	GASEG
Lookup_Edit	30-Nov-09 14:54:51	PFTUSER		30-Nov-09 14:54:51	PFTUSER	Read / Write	GUSEG
ST_Testing	27-Nov-09 14:19:57	PFTUSER	Demo for ST testing	27-Nov-09 14:19:57	PFTUSER	Read / Write	GUSEG
TEST LOOKUP	30-Nov-09 12:16:35	PFTUSER		30-Nov-09 12:16:35	PFTUSER	Read / Write	GUSEG
TTB 001 Loan Contracts	01-Dec-09 04:06:15	PFTUSER		01-Dec-09 04:06:15	PFTUSER	Read / Write	GUSEG
check lookup	02-Dec-09 13:39:17	PFTUSER		02-Dec-09 13:39:17	PFTUSER	Read / Write	GUSEG
test look up	30-Nov-09 14:39:21	PFTUSER		30-Nov-09 14:41:47	PFTUSER	Read / Write	GUSEG

Name

Displays Lookup Table Driver short names. Performing a "mouse-over" on a Name displays the Lookup Table Driver rule's description and system identifier.

Creation Date

Displays the date and time at which a rule was created.

Created By

Displays the name of the user who created a rule.

Description

Displays the rule's Description.

Last Modified Date

Displays the date and time at which a rule was last modified.

Modified By

Displays the name of the user who last modified a rule.

Access Type

Displays the "Read/Write" or "Read Only" property of a Lookup Table Driver rule. Only the creator of a rule may change its Access Type.

Folder

Displays the name of the Folder in which a Lookup Table Driver rule is stored.

Navigation within the Detail Screen

When you Add, Edit, or View a Lookup Table Driver rule, the Lookup Table Driver Detail screen is displayed. In addition to Name, Description, Folder, and Access Type, the definition of a Lookup Table Driver includes the specification of a source table and a lookup table, the mapping of source columns to lookup table columns, a lookup table filter (optional), and a lookup table return column.

The Audit Trail container is a standard footer container for every OFSAA rule type. It displays Created By, Creation Date, Last Modified By, and Modification Date on the Audit Trail tab. The User Comments tab may be used to add comments to any rule.

Lookup Table Driver Definition Container

Specify the Lookup Table Driver rule's Name and Description, select a Folder in which the Lookup Table Driver rule is to be stored, and specify whether you want the Lookup Table Driver rule to be "Read/Write" or "Read Only" (Access Type). Naming your Lookup Table Driver rule is required before it can be saved. Default values for Folder and Access Type are stored in Application Preferences.

* Lookup Table Driver Definition			
Lookup Table Driver*	Test Lookup Table Driver		
Description	Sample Lookup Table Driver Rule		
Folder	Demo Segment	Access Type	<input type="radio"/> Read <input checked="" type="radio"/> Read/Write

Lookup Table Driver Functionality

Lookup Table Driver rules are used in conjunction with Allocation rules (of the Lookup Driver Table type) to match Instrument level data with data from user defined lookup tables. Each Instrument table row retrieved within the Allocation rule's Source definition is matched with your lookup table in order to return a lookup table factor. For each row, the resulting lookup table factor is arithmetically combined (typically multiplication) with the column specified in the Allocation rule's Source definition in order to update another column within the same row. A very typical use case might be the allocation of Loan Loss Reserves, Economic Loan Loss Provision, or Credit Risk Capital to each of your commercial loan instruments as a function of Product, Remaining Term to Maturity, and Credit Rating. Static Driver Table rules also support this kind of "matching", but only for key processing dimensions (only for Product in this example). Lookup Table Driver rules extend the functionality of Static Table Driver rules by allowing you to also match on Instrument level measures or attributes (Remaining Term to Maturity and Credit Rating in this example).

Additional examples of how you might use a Lookup Table Driver rule include the following kinds of assignments:

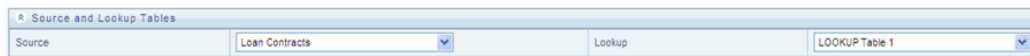
- Risk equity as a function of Product (a dimension), Division (a rollup point within a dimension), Credit Score (an instrument level attribute), and Remaining Term to

Maturity (also an instrument level attribute)

- Loan Loss Reserve or Economic Provision (expected loss) as a function of Product (a dimension), Amortization Type (an instrument level attribute), and Loan to Value Ratio (also an instrument level attribute).
- Account Maintenance Expense as a function of Product (a dimension) and Current Net Book Balance (an instrument level measure)

Source and Lookup Tables Container

Select a Source instrument table and a Lookup table. The tables available in the Lookup dropdown list box are limited to tables that you have registered as Lookup Tables within your data model (see *Oracle Financial Services Analytical Applications Data Model Utilities User Guide* for details on creating and registering Lookup Tables.)

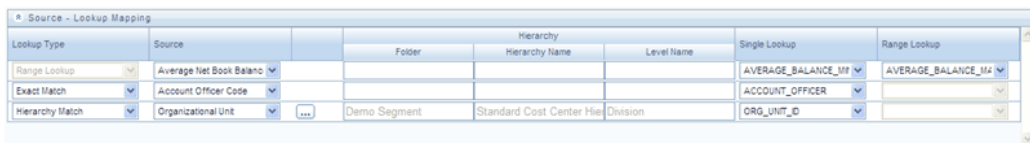


When you select a Lookup table, the Source – Lookup Mapping container (described in the following sections) responds by displaying one row for each lookup column within your registered lookup table.

Source – Lookup Mapping Container

Lookup Table Driver rules support three types of matching:

- Range Lookup
- Exact Match
- Hierarchy Match



Range Lookup

One of your options in defining a lookup table is to define a minimum column and a maximum column to be employed in a "Range Lookup" against each row of selected instrument data. For example, you may wish to assign an Account Maintenance fee against certain checking account products as a function of balances ranges, e.g., one fee amount for accounts having balances between 0 and 1,000 and a different fee amount for balances between 1,000 and 5,000, and a third fee amount for accounts having balances greater than 5,000.

If the lookup table you chose in the "Source and Lookup Table" container (discussed above) includes range lookup columns, a Range Lookup row (i.e., a row whose Lookup Type is Range Lookup) will automatically be generated within the Source – Lookup Mapping container. Within this automatically generated row, select the source column that you want to compare to the Range Lookup columns from your lookup table. In the example described above, you might want to compare Average Net Book Balance for each account with the range values from your lookup table. Range Lookup supports all instrument level measures, attributes, and dimension members (numbers, dates, or strings).

Exact Match

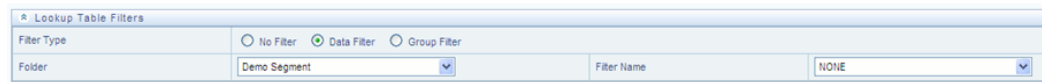
An exact match is a literal database join. Exact Match supports all instrument level measures, attributes, and dimension members (numbers, dates, or strings).

Hierarchy Match

Similar to Static Table Drivers, Lookup Table Drivers allow you to match leaf values from a Source instrument table with any leaf member that belongs to a hierarchical rollup point of that leaf. You might have, for example, sets of driver statistics that vary by region where regions can be defined as rollup points in an Organizational Unit hierarchy. If you had North, South, East, and West regions, you could store your lookup data in 4 regional sets. If there were 300 cost centers in the West region, by using Hierarchy Match functionality you avoid the repetition of 299 sets of otherwise identical driver data for the West region. Hierarchy matching is only supported for Key Processing dimensions.


Lookup Table Filters Container

You may constrain the data within your selected lookup table by applying a Lookup Table Filter. Chose No Filter, Data Filter, or Group Filter. If you have chosen either Data Filter or Group Filter, continue by selecting a Folder and a Filter Name. Note that the Filter Name drop down list box will only display filters that are applicable to your chosen lookup table.



Lookup Return Value

Specify the column within your lookup table from which to return a value for each lookup.



Lookup tables may contain multiple lookup columns. For example, you may define a

lookup table called Risk Factors that contains return columns for Credit Risk Factor, Operating Risk Factor, Economic Loan Loss Provision Factor, and Loan Loss Reserve Factor. In this example, you could subsequently define 4 separate Lookup Table Driver rules to be used within 4 separate Allocation rules (one Lookup Table Driver rule and one Allocation rule for each defined lookup column). In this example, each of your Allocation rules might utilize the same instrument column source (as defined in each Allocation rule's Source definition), e.g., Average Balance.

As another example, you might define a lookup table called Expense Factors that contains return columns for Account Maintenance Expense, Account Origination Expense, ATM Transaction Unit Cost, and Check Processing Unit Cost. In this example, you might develop 4 Lookup Table Driver rules and 4 Allocation rules. Here, you would probably utilize different Source columns within your Allocation rule definitions. For maintenance expense and origination expense, you might choose to allocate a flat amount for each account (e.g., use the value of 1.00 for each account; you may accomplish this using Record Count as the Source column since the Record Count column within Instrument tables is typically set to 1). For ATM expense and Check Processing expense, you might utilize Instrument source columns of ATM Transaction Count and Number of Checks Processed.

Allocation Execution History

Allocation Execution History Functionality

This chapter describes Allocation Execution History functionality. Specifically, this chapter will cover:

- UNDOing the results of previously executed allocation rules
- Viewing rule definitions in effect when an allocation rule was executed
- Viewing inline reports of data generated by an allocation rule's Source, Driver, and Output components for a selected rule execution
- Viewing listings of distinct data sources that contributed to an allocation's Source
- Viewing listings of subsequent allocation runs which included any of the current allocation rule's Outputs in their Source queries
- Cross referencing to or from the execution history of any allocation rule

This chapter presents the following topics

- Allocation Execution History User Interface
- UNDO Functionality
- Allocation Execution Audit Functionality
- Source Tab
- Operator Tab
- Driver Tab

- Outputs Tab
- Trace Allocation Tab

Allocation Execution History User Interface

Allocation Execution History allows you to review the runtime history of any allocation rule. You may see the order in which allocation rules completed, you may UNDO the results generated by any allocation rule, and you may drill in to the details of individual allocation executions to audit what a rule did at the time that it ran.

The Allocation Execution History summary screen presents a grid that lists a series of allocation runs sorted by *As-of-Date* and by *Completion Date*. You may sort on any column you choose by clicking on a column title, but the results will always be sorted first by *As-of-Date* and second by the column you have chosen.

When you first enter the Allocation Execution History summary screen, your results are filtered down to the most recent *As-of-Date* for which there is any allocation rule history. You may select a different *As-of-Date* from a drop-down list, but the only *As-of-Date*'s that are offered are those for which allocation history exists. You may optionally select "All *As-of-Dates*".

As of Date

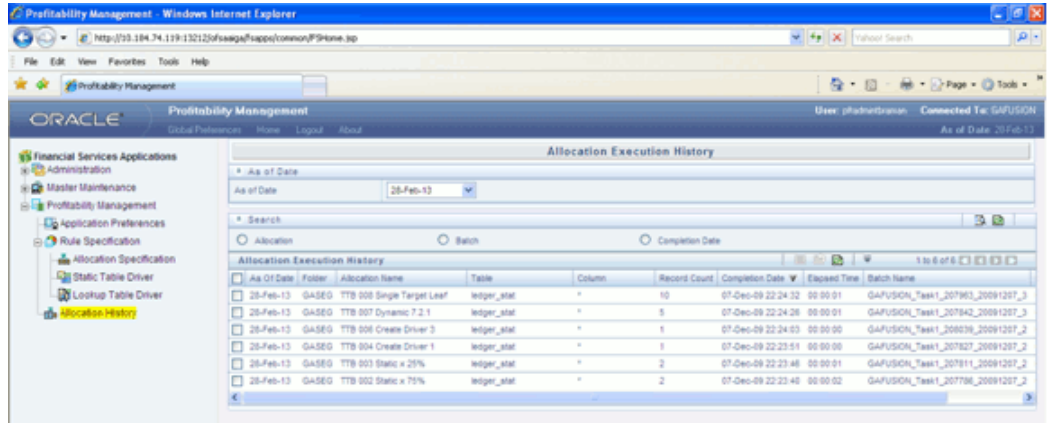
Controls how much rule execution history is displayed in the body of the summary grid.

Search Container

The search container is used to specify criteria that will reduce the number of rule executions that will be displayed in the Allocation Execution History summary grid. You may search based on:

- Allocation Name
- Batch Name
- Ranges of completion Date and Time

These constraints function as radio buttons, and the functionality of each type of search is explained below.



Allocation Name

Performs a wildcard search on Allocation Name. The search is executed when the user selects the Search button.

Batch

Performs a wildcard search on Batch Name. The search is executed when the user selects the Search button.

Completion Date

Restricts the number of rules displayed on the Allocation Execution History summary screen based on a user's specification of a single execution date and a "no earlier than" starting time and a "no later than" ending time. The search is executed when the user selects the search button.

Search

After entering search criteria, the user selects the Search icon to perform the search function. The As-of-Date from the first container on the screen is always applicable when the Summary screen is initially built or is refreshed. You may, however, select the "All As-of-Dates" option that effectively removes the As-of-Date as a constraint.

Reset

Removes values entered as search criteria and refreshes the screen.

Allocation Execution History Container

The Allocation Execution History summary grid offers several controls that allow the user to perform different functions when an allocation rule is selected. More than one

Allocation Rule can be selected at a time but this will cause some of the icons to become disabled.

View

After having chosen a single row out of the grid, selecting the View icon drills into an audit trail for the currently selected rule. The View icon is disabled if no rows have been selected or if multiple rows have been selected. See "Allocation Execution Audit Functionality" below for details.

UNDO

This icon is used to UNDO or reverse one or more allocation runs. For details, see UNDO Functionality below.

Refresh

This icon refreshes the contents of the Summary Grid. Users may want to do this if they have requested an UNDO or if they are simply watching as allocation rules currently running in a batch complete. Selecting Refresh will not alter any Search criteria you may have selected.

Pagination Options

As with all Summary screens, the maximum number of rows displayed per page is generally governed by the Pagination Records value you set in Global Preferences. You may use this local "Pagination Options" control to override your normal default value. You may set your local value using Pagination Options of 10, 25, 50, or any value between 1 and 50.

VCR Buttons

VCR Buttons allow you to navigate between pages.

Allocation Execution History Summary Grid

The following columns categorize each allocation rule in the summary grid:

You can sort any of these columns by clicking on the text in the column header.

Explanations of the meaning of each column header are as follows:

- As of Date
- Folder
- Allocation Name

- Table
- Column
- Record Count
- Completion Date
- Elapsed Time
- Batch Name
- Status

As-of-Date - Displays the As-of-Date for which the allocation rule was executed.

Folder - Displays the name of the Folder to which the allocation rule belong.

Allocation Name - Displays the allocation rule's short name. A "mouse over" on the rule's name displays the rule's long description as well as the Identity Code generated or used by that allocation. Identity Codes may be used in queries against the database to identify rows generated by the rule.

Table - This denotes the target table name in the database where the allocation either posted or updated records.

Column - This denotes the target column name in the database where the allocation either posted or updated records
Completion Date Displays the date and time at which each allocation rule completed.
Elapsed Time Displays the elapsed time required for each allocation rule to complete shown in hours, minutes & seconds.
Batch Name Displays the Batch name under which each allocation rule was executed. For rules executed directly from the Allocation Specification user interface, the system automatically generates synthetic batch names.
Status Denotes the status of each allocation rule. Values include "Completed" and "Marked for UNDO". Rules that are "Marked for UNDO" are in the process of being UNDONE. This status will normally disappear in just a few seconds or minutes. To refresh the status of allocations that are "Marked for UNDO", click on the Refresh control.

UNDO Functionality

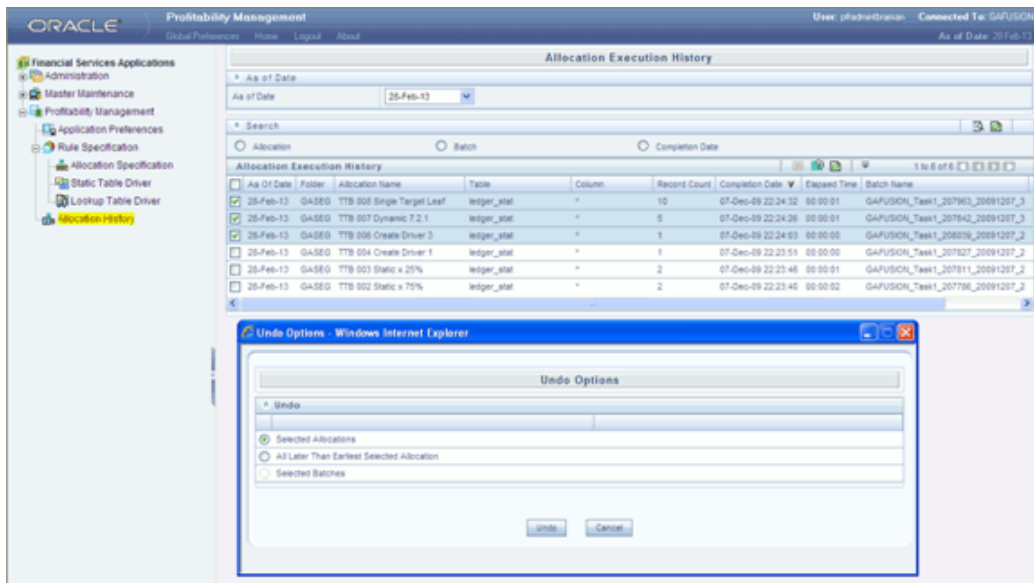
The UNDO icon is enabled whenever you select one or more rows from the summary grid. Upon requesting an UNDO operation, a pop-up dialog appears offering the following radio button UNDO Options:

- Selected Allocations
- All Later Than Earliest Selected Allocation
- Selected Batches

For allocations that insert or update data in the Ledger-Stat table, an UNDO operation reverses the effect of that rule run. For allocations that update data in instrument or transaction tables, an UNDO operation updates the column targeted by that allocation run with a value of zero.

If you select "All Later Than Earliest Selected Allocation", all rule runs that complete later than or equal to the completion time of the earliest selected rule are UNDONE. If your Application Preferences are set to "Enforce Mass UNDO", only the "All Later Than Earliest Selected Allocation" option will be offered. An individual user may select the "Enforce Mass UNDO" Application Preference, or it may be set by a System Administrator to enforce this option on all users.

If you choose "Selected Batches", all rule runs that belong to any of the batches you have selected will be UNDONE.



Allocation Execution Audit Functionality

After having selected a single row from the summary grid and selecting the View icon, a series of screens are displayed showing the allocation rule as it appeared at the time the rule was executed. If the rule has been modified since it was executed, the body of the rule will not be displayed. Future releases of Profitability Manager will include rule versioning so that you will always be able to see the structure of any rule at the time it was executed.

Common Components

The following three sections – Process Tabs, Allocation Header, and Audit Trail/User Comments – are common to each of the five Allocation Execution History View (audit) screens.

Process Tabs

The Process Tabs display the process flow of the underlying allocation rule definition. The Initial Definition and Review tabs from the specification process flow are not displayed here, but one additional tab is added: Trace Allocation. The tabs displayed are: Source, Operator, Driver, Outputs, and Trace Allocation. When choosing these tabs the specific process page is displayed.

Allocation Header

This section contains header level information about the rule run including the rule's Name, Description, and Folder, the As-of-Date for which the rule was run, the Batch Name under which the rule was run, and its Completion Time. The Allocation Header also displays the allocation's type.

Audit Trail/User Comments

The Standard Audit Trail/User Comments section is common to all detail screens. You may add additional comments when viewing allocation execution history if your user ID is assigned the Auditor role.

Inline Reports

The audit functionality provided within Allocation Execution History includes inline reports for Sources, Drivers, and Outputs of allocation rules. These inline reports are described in detail in the following sections.

Source Tab

The Source tab is the first to be displayed when the user chooses to View a specific allocation run on the Allocation Execution History Summary page. This tab displays the details pertaining to the allocation's Source specification at the time that it was run. This view-only screen also offers an inline report of the Source data generated by the allocation rule at the time that it was run and offers the user the ability to trace the sources of the data that fed into the current allocation.

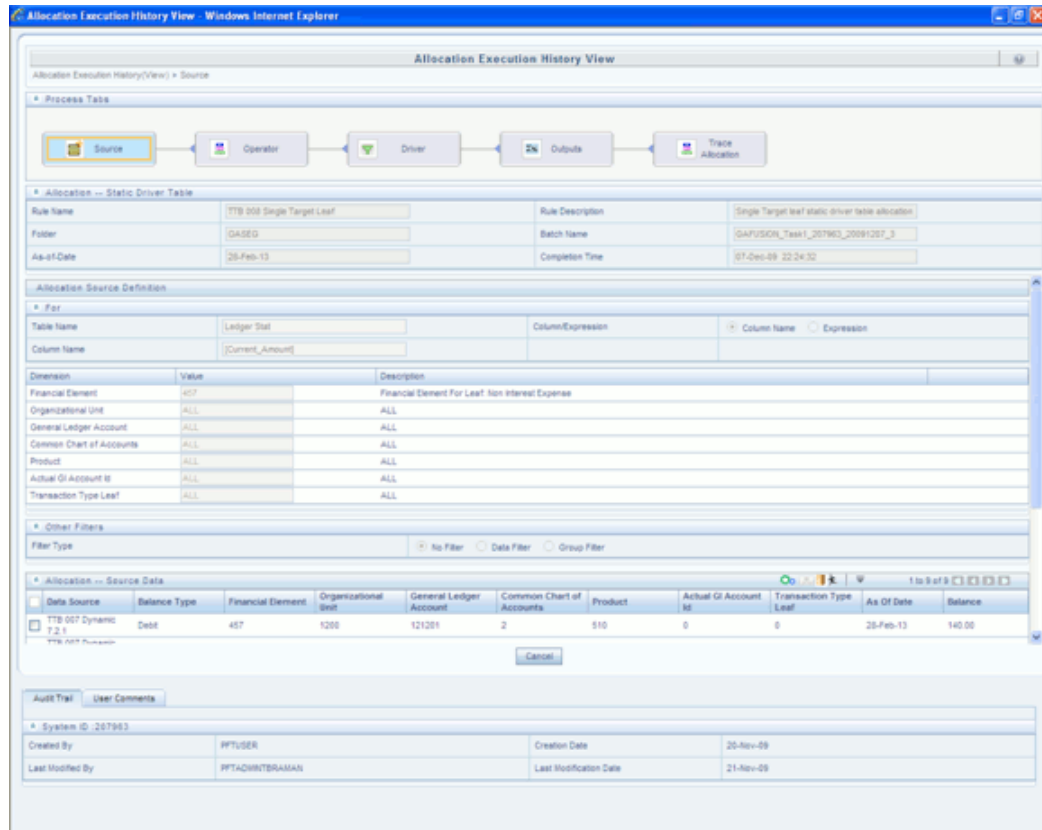
Allocation Source Definition

The For section of the Allocation Execution History Source tab displays a read-only version of the For section of the underlying allocation rule's Source specification. The Other Filters section of the Allocation Execution History Source tab displays a read-only version of the Other Filters section of the underlying allocation rule's Source specification.

Allocation Source Data

This section of the screen is initially empty. If you wish to see an inline report for the

allocation's source data, you must select the Run icon. Actual queries generated by the allocation engine are persisted at runtime so that the inline reports will always be available (regardless of whether or not the rule has been modified since it was executed). The Source inline report excludes any data generated by allocations or other processes that ran after the rule run currently being examined.



Allocation Source Data Controls

These include: Options, Trace, Show SQL, and Run.

Run

Select the Run icon to invoke the Source Inline Report.

Show SQL

Select the Show SQL icon to view the query that generates the inline report. You may copy and paste this SQL to any query tool.

Trace

After having run the inline report, you may trace to another allocation rule that contributed to the Source of the current allocation rule by checking a select box on one

of the current report rows and then selecting the trace icon. Non-allocation sources are disabled; only allocations may be traced.

Options

After having executed an inline report, selecting the Options icon invokes a History Options dialog. This dialog shows two containers: Dimension Display and Hide/Collapse Dimensions.

Dimension Display

This container offers you radio buttons with options to display short dimension names, long dimension names, or both within your inline report.

Hide/Collapse Dimensions

This container offers you the option of "collapsing" or "hiding" selected dimensions from your inline report. Dimensions containing only a single value within your report may be "hidden", i.e., removed from the inline report. Dimensions containing multiple values within your report may be "collapsed" upon. A "collapsed" dimension is one that is removed from both the SELECT and GROUP BY clauses of the inline report query. If you "collapse" a dimension, it is removed from your inline report and the number of rows within the report is reduced.

Operator Tab

This tab displays the allocation's Operator specification at the time that the rule was run.

Driver Tab

This tab displays the details pertaining to the allocation's Driver specification at the time that it was run. This view-only screen also offers an inline report of the Driver data generated by the allocation rule at the time that it was run and offers the user the ability to trace the sources of the data that fed into the current allocation.

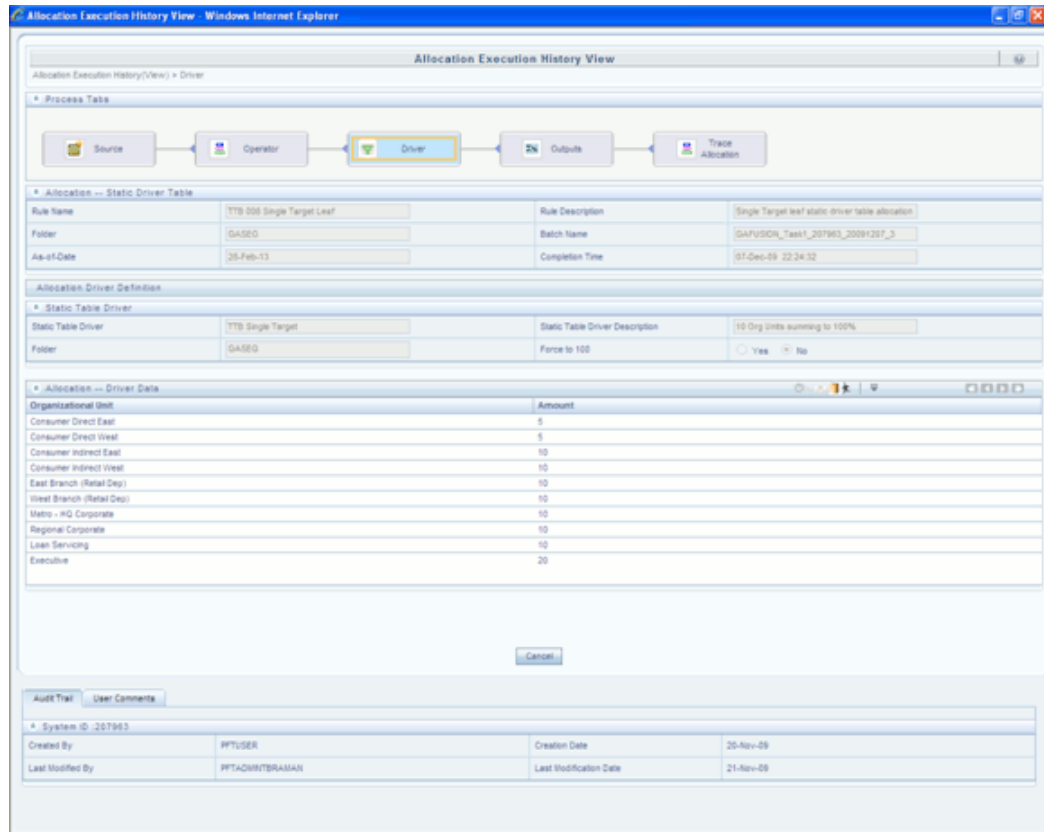
Allocation Driver Definition

The For section of the Allocation Execution History Driver tab displays a read-only version of the For section of the underlying allocation rule's Driver specification. The Other Filters section of the Allocation Execution History Driver tab displays a read-only version of the Other Filters section of the underlying allocation rule's Driver specification.

Allocation Driver Data

This section of the screen is initially empty. If you wish to see an inline report for the

allocation's driver data, you must select the Run icon. Actual queries generated by the allocation engine are persisted at runtime so that the inline reports will always be available (regardless of whether or not the rule has been modified since it was executed). The Driver inline report excludes any data generated by allocations or other processes that ran after the rule run currently being examined.

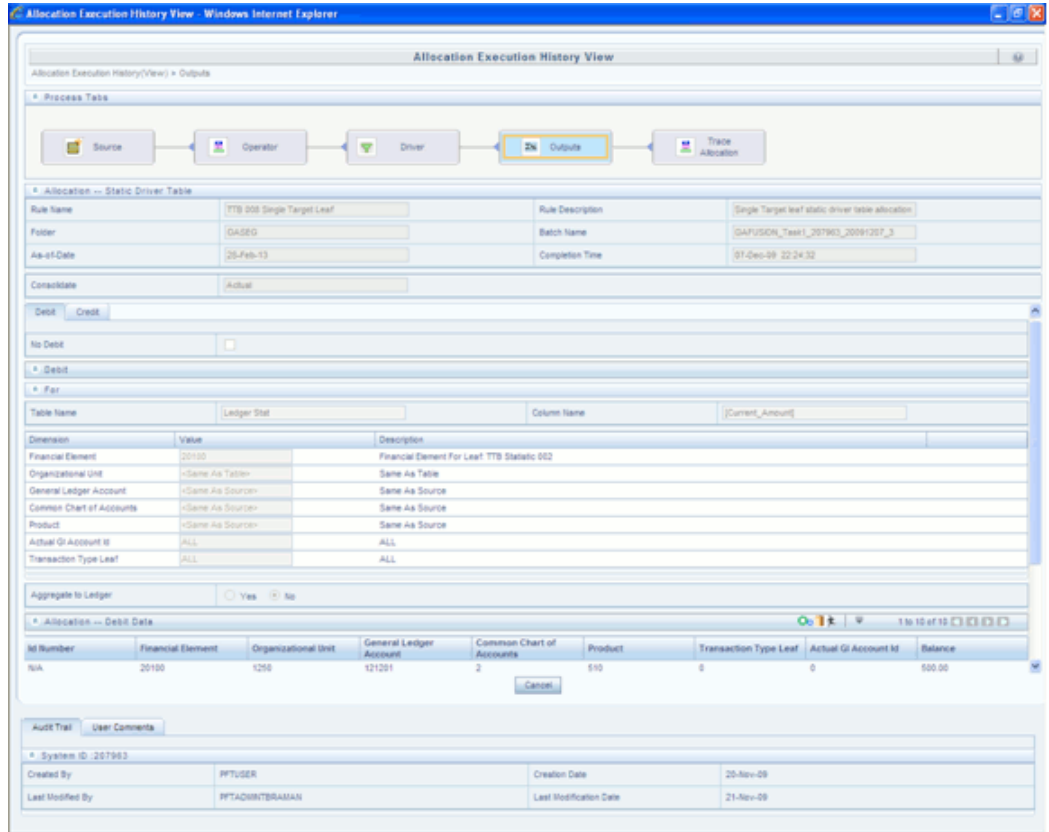


Allocation Driver Data Controls

These controls, including Options, Trace, Show SQL, and Run, operate identically to those described above under Allocation Source Data Controls.

Outputs Tab

The Outputs tab displays the details pertaining to the allocation's Output specification at the time that it was run. This view-only screen also offers an inline report of the Output data generated by the allocation rule at the time that it was run.



Trace Allocation Tab

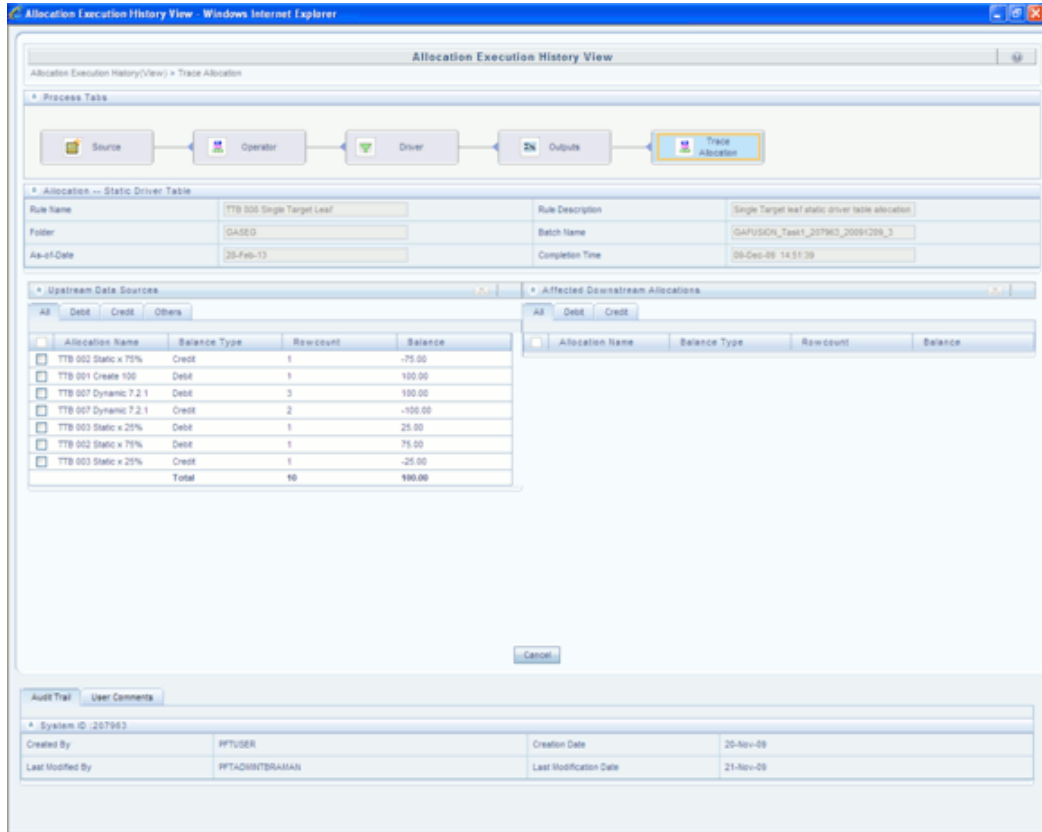
The Trace Allocation tab displays two containers, one showing distinct upstream data sources and the other showing affected downstream allocations.

Upstream Data Sources

The Upstream Data Sources container displays all distinct Sources of data that fed into the current allocation run. You may trace any upstream allocation, but you may not trace non-allocation sources (initial ledger loads, transfer pricing rate migrations, etc). The All, Debit, Credit, and Others tabs within the Upstream Data Sources container allow you to discriminate by Balance Type.

Affected Downstream Allocations

The Affected Downstream Allocations container displays all downstream allocation rules that included the outputs of the current rule run in their Source queries. You may trace to any downstream allocation. The All, Debit, Credit, and Others tabs within the Affected Downstream Allocations container allow you to discriminate by Balance Type.



Hyperlinking Between Audit Reports

Selection checkboxes often appear in the first column of the Upstream Data Sources and Affected Downstream Allocations containers on the Trace Allocation tab. Similarly, selection checkboxes often appear in the first column of the Source and Driver inline reports.

These checkboxes appear whenever a data source is itself an allocation rule. You may click on any checkbox and then click on the Trace control to hyperlink to the Allocation Execution History of the allocation source you just chose.

A

Multicurrency

This Appendix covers:

- Implementation of multiple currencies in OFSAA solutions
- How currency translation is used in OFSAA Profitability Management calculations
- Usage of multiple-currency output from Profitability Management in relation to the Management Ledger, Instrument, and Transaction Summary tables

This appendix covers the following topics:

- OFSAA Rate Management
- Functional Currency
- Currency Codes
- Loading the Management Ledger Table
- Multiple Currencies in Allocation Rules
- Using the Currency Dimension as a Filtering Condition
- Allocation Engine Process Processing Flow
- Selecting Rows from Ledger/Stat
- Treatment of Constants and Coefficient Values
- Selecting Rows from Detail Tables
- Inserting Into or Updating Ledger/Stat
- Updating Detail Tables
- Notes on Usage of Statistics and Other Balances
- Monetary Balances and Balance Weighted Objects
- Statistics & Standard Rates
- Examples

OFSAA Rate Management

Documented in OFSAA Rate Management chapter is a rate management utility that enables users to manage interest rates, exchange rates, and currency data with a high degree of security and control. As part of OFSAA Infrastructure, OFSAA Rate Management handles all currency definitions for OFS Analytical Applications. Currencies are conveniently referred to by code and written description. A comprehensive list of ISO-defined currencies is included, and the user can define and add his or her own. For details on using OFSAA Rate Management, see OFSAA Rate Management chapter, page 10-1 of this user guide.

Upon installation, one currency is active and ready for processing: the one identified by your organization as the functional currency (indicated by the value found in the FUNCTIONAL_CURRENCY_CD column in FSI_DB_INFO). You may activate other currencies and define and activate newly created currencies as needed.

You may define, input, and maintain exchange rates between any two active currencies. In addition to the standard floating exchange relationships, special fixed relationships are available (For example, used prior to 2000 in the European Monetary Union). OFSAA Rate Management complies with EMU structure and legislation, and supports changes in currency rates as well as additions and deletions of the currencies of member countries.

Exchange rates between currencies used in Profitability Management allocations are reciprocal. The rate of exchange between two currencies must be arbitrage free. Profitability Management does not calculate any currency exchange offsets for non-reciprocal exchange rates.

Functional Currency

At the time of installation, OFSAA Rate Management requires the installer to designate a functional, or primary, currency for the organization. A Swiss multinational bank would therefore designate the Swiss franc as its functional currency. Only one functional currency is allowed for one Information Domain. Once assigned, it cannot be changed. The functional currency is always an active currency. The designation of functional currency is stored as an ISO currency code in FSI_DB_INFO.FUNCTIONAL_CURRENCY_CD.

Profitability Management allocations can read and write in multiple currencies. However, Profitability Management allocations perform internal calculations in the functional currency.

When multicurrency is disabled, all ISO Currency Code values are written in the Functional Currency.

Currency Codes

ISO Currency Codes are defined for the world's major currencies and are seeded in the OFSAA database at installation. ISO Currency Codes are Simple Dimension members (see Dimension Types, page 2-5 in Overview of OFSAA Infrastructure chapter) that define the currency of any row in the database. ISO Currency Code values used in any of the OFS Analytical Applications must be designated as active in OFSAA Rate Manager. ISO Currency Codes may also be user-defined. User-defined ISO Currency Codes are set up in OFSAA Rate Management (again, for details, see OFSAA Rate Management chapter, page 10-1).

Users must designate ISO Currency Codes as reporting currencies in order to activate the calculation of conversion rates. Simply designating the currency as active is not sufficient.

002 code

The ISO Currency Code value of 002 represents statistical data in the Management Ledger. An ISO Currency Code value of 002 means "no currency basis". For example, a row in the Management Ledger representing a square footage statistic does not need a currency association and would therefore have a 002 ISO Currency Code. Assigning an ISO Currency Code to a statistic is useful for matching rows that have the same leaf values but differ only by ISO Currency Code (Leaf type Allocation rules).

Loading the Management Ledger Table

OFSAA Infrastructure includes a process for loading data to the Ledger/Stat table (see Ledger Data Loader in the OFSAA Data Model Utilities User Guide). The following describes the behavior of the Ledger Data Loader as regards ISO Currency Code values:

If multicurrency is Disabled

The ISO Currency Code of the Functional currency is always loaded into Ledger/Stat for every row found in the staging table.

If multicurrency is Enabled

Staging rows that are populated with valid ISO Currency Codes are loaded to Ledger/Stat. Staging rows that are not populated with valid ISO Currency Codes are loaded as follows:

- If a row's Financial Element has the column property of Balance or Balance Weighted Object, it is loaded to Ledger/Stat with the ISO Currency Code of the Functional Currency.

- If a row's Financial Element has the column property of Statistic or Standard Rate, it is loaded to Ledger/Stat with the ISO Currency Code '002' (the "non-currency" or "statistical" currency code).

Multiple Currencies in Allocation Rules

OFSA Profitability Management allocation engine supports processing of balances in multiple currencies. When multiple currency functionality is enabled (FSI_DB_INFO.MULTI_CURRENCY_ENABLED_FLG = 1), a Currency dimension is enabled in each of the Allocation Specification dialogs (i.e., Sources, Drivers, and Outputs) that lists dimension member values. ISO Currency Code functions similarly to other dimension members in the Profitability Management user interfaces except that the ISO Currency Code dimension is a Simple Dimension and therefore does not support hierarchies. When specifying ISO Currency Codes in an Allocation rule, you may only specify a leaf value (an active ISO Currency Code) or a macro value.

- For all tabs the allocation rule dialogs support the Functional Currency macro ('001'), the Statistical Currency macro (non-Currency Basis of '002'), and all active ISO Currency Codes.
- The Source and Driver tabs also support an All Currencies macro. All Currencies is the default value for Source and Driver tabs.
- The Debit and Credit pages within the Output tab also support a <Same as Source> macro. For Dynamic Driver rules, the Debit and Credit pages also support <Same as Driver >and <Match Source & Driver>

Output Tab Showing Multicurrency Options for a Dynamic Driver Rule

The screenshot displays a software interface for configuring a dynamic driver rule. At the top, there are tabs for 'Debit' and 'Credit'. Below these is a 'No Debit' checkbox. The 'For' section shows 'Table Name' set to 'Ledger Stat'. The 'Dimension' section contains a table with columns for 'Dimension', 'Value', and 'Description'. The 'Currency' dimension is expanded, showing a list of options: '<Same As Source>', 'GBP - British Pound', 'EUR - Euro (European EMU)', 'USD - US Dollar', '-99300 - <Same As Source>', '-99400 - <Same As Driver>', '-99410 - <Match Source & Driver>', '001 - Functional Currency', and '002 - Statistical Currency'. The '-99300 - <Same As Source>' option is currently selected. At the bottom right, there are buttons for 'Save', 'Save As', and 'Cancel'. At the bottom left, there are tabs for 'Audit Trail' and 'User Comments'.

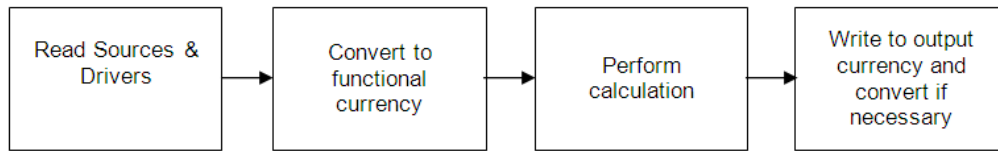
Dimension	Value	Description
Financial Element	<Same As Source>	<Same As Source>
Organizational Unit	<Same As Driver>	Same As Driver
General Ledger Account	<Same As Source>	Same As Source
Common Chart of Accounts	<Same As Source>	Same As Source
Product	<Same As Source>	Same As Source
Currency	-99300 - <Same As Source>	Same As Source

Using the Currency Dimension as a Filtering Condition

As with other Key Processing Dimensions, the use of any value other than <All> will constrain the data that serves as Sources or Drivers to allocation rules. For example, if you were to specify GL Account 12345 – Salary Expense within the Source of an allocation rule, only rows having GL Account 12345 would be included in the Source of your rule. Similarly, if you were to specify US Dollars within the Source of an allocation rule, only rows denominated in US Dollars would be included.

Allocation Engine Process Processing Flow

In Sources and Drivers, the Profitability Management allocation engine can read multiple input currencies. When posting to the Ledger/Stat table, the engine can output multiple result currencies. When posting to a detail table, outputs are converted, if necessary, to match the ISO_CURRENCY_CD on each detail record to be updated.



The preceding diagram describes the basic allocation engine processing flow for multicurrency allocations. Input data for monetary balances are converted to the functional currency. By having all inputs in the same currency, calculations, such as percent distribution, are created on equal basis. After converting all input data to functional currency, the allocation calculations are performed. The output results of the allocation can be in any currency. The results of calculations are converted from functional currency to the appropriate debit or credit currency for that allocation. As noted earlier you may direct the output currency to your choice for Ledger/Stat outputs; for detail tables, outputs always match the currency of the records to be updated.

Input rows to allocation rules are checked to determine whether currency translation is necessary. The checks for whether an item needs translation vary between the Ledger/Stat table and detail tables (Instrument and Transaction Summary tables).

Selecting Rows from Ledger/Stat

When reading rows from Ledger/Stat, the allocation engine decides whether or not it needs to translate a Month-to-Date or Year-to-Date value based on the "Column Property" characteristic of each row's Financial Element ID. This decision process applies equally to Sources and Drivers and is made on a row-by-row basis (one decision point for each distinct Financial Element found). OFSAA Infrastructure supports four Column Properties for Financial Elements: Balance, Balance Weighted Object, Statistic, and Standard Rate.

- If the Column Property of an input row's Financial Element is Balance or Balance Weighted Object then the value is translated to the Functional Currency
- If the Column Property of an input row's Financial Element is Statistic or Standard Rate then the value is NOT translated (that is, the value has no currency specific basis)

Note: You may execute the following query to see the Column Property for each Financial Element:


```

SELECT A.FINANCIAL_ELEM_ID,
C.FINANCIAL_ELEM_NAME,
B.COLUMN_PROPERTY
FROM DIM_FINANCIAL_ELEMENTS_ATTR A,
REV_COLUMN_PROPERTY_DSC B,
DIM_FINANCIAL_ELEMENTS_TL C
WHERE A.ATTRIBUTE_ID = 5004
AND C.LANGUAGE = <Specify your language here or simply use
'US'>
AND A.DIM_ATTRIBUTE_NUMERIC_MEMBER = B.COLUMN_PROPERTY_CD
AND A.FINANCIAL_ELEM_ID = C.FINANCIAL_ELEM_ID
ORDER BY 1;

```

Note: When you generate a user-defined Financial Element, you must assign a Column Property attribute value.

Treatment of Constants and Coefficient Values

The following constant values are assumed to be either statistical in their nature or are assumed to be entered in Functional currencies and are therefore never translated:

- Input values on the Source tab for Constant type allocation rules
- Constants found in the Operator for any rule
- Values in Static Table Driver rules
- Values found by Lookup Table Driver rules in user-defined Lookup Tables

Selecting Rows from Detail Tables

When reading a column from a detail table (an Instrument table or a Transaction Summary table), the allocation engine decides whether or not it needs to translate a value based on the column's Column Property characteristic.

- If a column's Column Property is Balance then the value is translated to the Functional Currency
- If a column's Column Property is anything OTHER than Balance then the value is NOT translated (that is, the value has no currency specific basis)

For detail level columns, OFSAA Infrastructure supports the following Column Properties:

Property	Description
BALANCE	Monetary balance
CHAR	Fixed-length alpha-numeric data
CODE	Defined Alpha or Numeric Code Value
CODE_NUM	Undefined Numeric Code Value
DATE	Date value
FLAG	True/False value
FREQ	Recurring period of time
LEAF	Leaf column
IDENTITY	Reserved
ID_NUMBER	Reserved
MULT	Multiplier
NUMBER	Numeric Value
NUMERIC	Numeric Value
RATE	Interest rate
TERM	Non-recurring period of time
VARCHAR2	Variable-length alpha-numeric value
PCT	Percent
DEFAULT	Default Datatype

Note: You may execute the following query to see the Column Property for any column in an Instrument or Transaction Summary table:

```

SELECT TABLE_NAME,
COLUMN_NAME,
A.REV_DATA_TYPE_CD,
B.REV_DATA_TYPE,
B.DESCRPTION
FROM REV_TAB_COLUMNS A, FSI_DATA_TYPE_DESC B
WHERE TABLE_NAME = <Insert table name here>
AND A.REV_DATA_TYPE_CD = B.REV_DATA_TYPE_CD
ORDER BY 1, 3, 2;

```

Inserting Into or Updating Ledger/Stat

Allocations inserting into or updating the Ledger/Stat table treat Currency as a Key Processing Dimension. For example, in a Dynamic Driver type of allocation that outputs to Ledger/Stat, if the allocation's Debit value in the Currency dimension is <Same as Source> and if five distinct currencies are found in the Source data, then the engine will output to five currencies in its Debit. If the allocation's Debit value in the currency dimension is <Same as Driver> and if six distinct currencies are found in the Driver data and if the allocation's Driver is constructed to use Force to 100%, then the allocation engine will perform a percent-distribution calculation to the six currencies.

The engine decides how to Debit & Credit the Currency dimension based on the instructions you specify in an allocation rule. The decision as to whether or not to translate output values to the currency basis of the target output currencies is a completely separate one.

For any given row in the output of an allocation rule, the engine decides whether or not to convert to a target currency based on the Column Property of the Financial Element for that row. As was the case when selecting data from Ledger/Stat:

- If the Column Property of a target row's Financial Element is Balance or Balance Weighted Object then the value is translated from the Functional Currency to the target currency.
- If the Column Property of a target row's Financial Element is Statistic or Standard Rate then the value is NOT translated that is, the value has no currency specific basis)

Updating Detail Tables

When updating a Balance type column within any of the detail tables, outputs are translated to match the currency of the records to be updated.

Notes on Usage of Statistics and Other Balances

It is important to understand the details of the behavior of the allocation engine with respect to currencies before building your rules. Some elements that you may regard as

being statistical in nature are registered within the system as Balances or as Balance Weighted Objects and are therefore always translated (both when serving as inputs to rules and when output from rules). You may wish to store other statistical elements as a function of currency, that is, elements having different values for each currency, but which you do not want the engine to ever translate. Finally, you may wish to store elements that you regard as being statistical in nature but which vary as a function of currency and which you do want the engine to translate.

Monetary Balances and Balance Weighted Objects

Monetary Balances (or simply Balances at the detail table level) have a strong currency basis that is relatively obvious. Ending balances and average balances for Balance Sheet elements and expense & revenue balances are the most common examples.

In a multicurrency implementation, instrument level monetary balances are inherently stored as "transacted" balances, that is, as balances stored in a local currency. The monetary balances that you source from your general ledger system and which you store in Ledger/Stat will generally be 100% functional. You may, however, sometimes wish to aggregate instrument level balances to your Ledger/Stat table and to store them there in their local currency amounts and/or generate non-functional balances in your Ledger/Stat table.

Balance Weighted Objects include elements such as weighted average Transfer Rate (Financial Element 140) at first glance appear to have a statistical nature but have a direct relationship to underlying monetary balances and therefore have the same strong currency basis as Monetary Balances.

More commonly, you will write your allocation rules that debit or credit Ledger/Stat using the 001 – Functional Currency macro or using the ISO Currency Code that represents your Functional Currency (these are equivalent definitions).

Statistics & Standard Rates

The Statistics and Standard Rates Column Property Financial Elements are never translated – neither on input (Sources and Drivers) nor on output (Debits and Credits).

Similarly, at the instrument level, columns whose Column Property is other than Balance are never translated.

The meaning of the term "statistic" is contextual. Statistics often lack a currency basis (that is, you do not want the allocation engine ever to translate them, neither on input nor on output). Most often, transactional volumes, activity volumes, unit costs, and other statistics do not vary by currency in their meaning. For example, you may wish to utilize headcount statistics as a driver in one or more allocation rules. Your headcount statistic would almost always be invariant as to currency.

On the other hand, you may wish to store some other kinds of "statistics" as a function of currency. Weighted average interest rates on loans and deposits or weighted average transfer rates, for example, have a strong currency basis.

Examples

Example #1

In this example, a "debit only" Constant allocation rule generates a single row in Euros in an environment in which the Functional currency is US dollars.

Allocation Data	Nature of Data	Implication
Source Data: Constant value of 100	Input value is a constant	As a constant, the engine treats this as \$100 (since USD is the Functional currency)
Driver Data: None	Constant rule types do not support drivers	There is no driver data
Debit: One leaf dimension value is supplied for each dimension	Debit: Record is output in Euros to Financial Element = Ending Balance	Since the Column Property of the Ending Balance Financial Element is "Balance", the output value is translated and the one row created is denominated in Euros

In this example, if the USD to EUR exchange rate is \$1.2987 per Euro then the allocation rule's Debit produces an output value of €77.00 (100/1.2987).

Example #2

Similar to example #1, in this example a "debit only" Constant allocation rule generates a single row in Currency Code "002 – Non Currency Basis" in an environment in which the Functional currency is US dollars.

Allocation Data	Nature of Data	Implication
Source Data: Constant value of 100	Input value is a constant	As a constant, the engine treats this as \$100 (since USD is the Functional currency)
Driver Data: None	Constant rule types do not support drivers	There is no driver data

Allocation Data	Nature of Data	Implication
Debit: One leaf dimension value is supplied for each dimension	Debit: Record is output to Currency = '002' and to a user-defined Financial Element = Headcount (a statistical Financial Element)	Since the Column Property of the output Financial Element is "Statistic", the output value is NOT translated and the one row created is denominated in '002', Non Currency Basis

In this example, note that even if the allocation had output to a Balance type Financial Element (Ending Balance, for example), no translation would have occurred since '002' means "No currency basis". The debit value in this example is 100.

Example #3

Example #3 is an allocation rule that distributes an equal amount of ledger-level expense to an instrument level balance column.

Allocation Data	Nature of Data	Implication
Source Data: Ledger/Stat for Statement Processing Expense	Various Statement Processing Expenses sourced from Ledger/Stat for Checking and Savings products. In this example, all of the Source rows are denominated in USD which is the Functional currency.	No translation is necessary since all of the source expense is already denominated in the Functional currency
Driver Data: Record Count column in the Checking and Savings instrument table	The instrument-level Record Count column will nearly always have a value of 1 and is intended to assist, among other purposes, as a driver for "equal distribution" kinds of allocation rules. The Column Property of the Record Count column is Numeric.	As a Numeric column, Record Count has non-currency specific meaning and therefore is not translated.

Allocation Data	Nature of Data	Implication
Debit: Instrument level Statement Processing Expense column	In this example, 3 distinct currencies are found within the Checking and Savings table for the current As-of-Date: USD, EUR, and GBP.	No translation is required for data written to the Statement Processing Expense column for the rows denominated in USD, but translation is required for rows denominated in EUR and GBP.

In this example, we are allocating a pool of ledger-level Statement Processing expense down to the instrument level for Checking and Savings products. The methodology we have selected is to allocate an equal share of the ledger-level expense to every row in the CASA (Checking and Savings Accounts) table on the assumption that every row generates an equal amount of expense for the bank.

Once completed, we would expect that the total USD-equivalent of the amount of the Statement Processing Expense allocated to the instrument level would be exactly equal to the amount originally sourced from the ledger-level.

Example #4

Example #4 is an allocation rule that distributes ledger-level expense to an instrument level balance column on a percent-to-total basis of another instrument level balance column.

Allocation Data	Nature of Data	Implication
Source Data: Ledger/Stat resident Loan Loss Reserves for Mortgages	All Loan Loss Reserve data for Mortgage products denominated in USD (the Functional currency)	No translation is necessary since all of the source expense is already denominated in the Functional currency
Driver Data: Average Balance column in the Mortgages instrument table (percent-to-total)	The Column Property of the Average Balance column is Balance. In this example, rows are found that are denominated in USD and JPY	As a Balance column, Average Balance is translated to the Functional Currency
Debit: Instrument level Loan Loss Reserve column	The Column Property of the Loan Loss Reserve column is also Balance	Once again, translation is required but only for the rows denominated in JPY

In this example we started with Source data (ledger-level) Loan Loss Reserve in the

amount of \$40,000,000 that was to be allocated to detail level data in the Mortgages table for a portfolio of 10,000 USD-denominated loans the total average balance of which was \$2 billion; and 10,000 JPY-denominated loans the total average balance of which was ¥ 200 billion. In this case the current exchange between JPY and USD is 100:1 so the USD equivalent average balance of the JPY mortgage portfolio is equal to the USD mortgage portfolio – each portfolio is valued at 2 billion USD.

Since the JPY and USD portfolios are of equal size, we would expect that each portfolio should receive an equal distribution of total Loan Loss Reserve (\$20 million to each portfolio). Moreover, we would expect that each dollar of USD average balances would receive an amount equal to each ¥ 100 of JPY average balances; and that after the allocation rule had been run, we would expect to find \$20 million in allocated Loan Loss Reserve associated with USD mortgage rows and ¥ 2 billion in allocated Loan Loss Reserve associated with JPY mortgage rows.

Fiscal Year Information

Oracle Financial Services Analytical Applications (OFSAA) support both calendar year (January to December) and fiscal year configurations. If your organization operates on a fiscal year calendar, this appendix documents how to configure your fiscal year within OFSAA and how a fiscal year configuration affects processes that insert into or update the Ledger/Stat table. Note that in the context of this appendix, a fiscal year denotes a non-calendar financial year (that is, a year that does not contain 12 months and/or does not begin in January and end in December).

This appendix covers the following topics:

- Configuring a Fiscal Year
- How YTD Calculations Are Affected by a Fiscal Year Configuration
- Examples of Calendar Year and Fiscal Year Configurations
- Using the Undo Function with a Fiscal Year Configuration

Configuring a Fiscal Year

Fiscal year configuration data is held in FSI-FISCAL-YEAR-INFO, a special one-row, two column table. This table is seeded with values corresponding to a standard 12-month, January to December calendar year.

FSI_FISCAL_YEAR_INFO table

FISCAL_PERIOD	START_MONTH
12	1

If your organization operates on a fiscal year basis, the values in this table should be updated at the time OFSAA is installed. In the FSI-FISCAL-YEAR-INFO table, the values in the Fiscal-Period and Start-Month columns determine the duration and

beginning month of your financial year, respectively. All application processes that insert into, update, or delete from the Ledger/Stat table read the configuration data in FSI-FISCAL-YEAR-INFO in order to properly maintain the 12 month-to-date and the 12 year-to-date columns in Ledger/Stat.

Fiscal-Period Column

This column holds a value that represents the duration of the financial year in months. For a calendar year, this value is always 12 months. For a fiscal year, this value is typically 12 but it may have a different value. Fiscal year configurations give you the flexibility to set shorter financial periods within a 12-month period. For example, if your organization has two 6-month fiscal periods over a 12-month span, then the value in this column would be 6.

For Oracle Financial Services Analytical Applications, the default setting is a calendar year and the value in the fiscal period column is 12. If you set your fiscal period to any value other than 12, the system automatically treats this setting as a fiscal year configuration. Valid fiscal periods include 1, 2, 3, 4, 6, or 12 months. Note that fiscal period values of other than 1, 2, 3, 4, 6, or 12 months are not supported and will cause application runtime errors.

Start-Month Column

This column holds a value that represents the first month of your financial year. Calendar years, which always begin in January, have a Start Month value of 1. Start month would have a value of 3 if your fiscal year were to begin in March and a value of 7 if your fiscal year were to begin in July.

For Oracle Financial Services Analytical Applications, the default setting is a calendar year so the starting month value is 1. Note that starting month values of less than 1 or greater than 12 are not supported and will cause will cause application runtime errors.

How YTD Calculations Are Affected by a Fiscal Year Configuration

The Ledger/Stat table contains each of your Key Processing dimensions, a number of administrative columns that are also components of the table's primary key, and 24 "fact" columns (balance columns). The first 12 fact columns (MTD-01 to MTD-12) contain monthly balances; the next 12 fact columns (YTD-01 to YTD-12) contain year-to-date balances. When you are running a standard calendar year configuration, MTD_01 corresponds to January data and MTD_12 corresponds to December data. If, however, your Start-Month column were set to 9 (indicating that your fiscal year begins in September), then the MTD_01 in Ledger/Stat would correspond to September and MTD_12 would correspond to August.

Year-to-date calculations begin at the start date of the fiscal period rather than January of the year in which the calculations are performed. For example, if July were the start date for your organization's fiscal period, and if you were to load General Ledger data

to Ledger/Stat for July, August, and September, then the YTD_03 column would contain fiscal year-to-date data for September, the 3rd month of your fiscal year. In addition to the Ledger/Stat load process, every OFSAA process that interacts with Ledger/Stat will reference FSI-FISCAL-YEAR-INFO to properly maintain both the month columns and the YTD columns.

This is an important consideration for the following calculations:

- Allocation rules that insert into or update the Ledger/Stat table.
- The allocation UNDO process that performs updates or deletes from Ledger/Stat.
- Loading data into Ledger/Stat through the OFSAA Ledger Data Loader utility (For more details, see *Oracle Financial Services Analytical Applications Data Model Utilities User Guide*).
- Transfer pricing rate migration from instrument tables to the Ledger/Stat table through OFSAA Transfer Pricing.
- Direct transfer pricing of the Ledger/Stat table through OFSAA Transfer Pricing.

Examples of Calendar Year and Fiscal Year Configurations

The following examples demonstrate different configurations in the FSI-FISCAL-YEAR-INFO table and show how these configurations affect application functionality involving inserts into, updates of, or deletions from the Ledger/Stat table.

Using a Calendar Year Configuration

Under the default calendar year configuration, the FSI-FISCAL-YEAR-INFO table contains a Fiscal Period value of 12 and a Start Month value of 1. For the following calendar year example, calendar months for 2011 correspond to the Ledger/Stat monthly buckets as shown in the following table:

Monthly Data for Calendar Year 2011

MTD _01	MTD _02	MTD _03	MTD _04	MTD _05	MTD _06	MTD _07	MTD _08	MTD _09	MTD _10	MTD _11	MTD _12
Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011

If you have set your As-of-Date to June, 2011, then any OFSAA process that addresses Ledger/Stat will:

- Set or re-set the MTD_06 column (updates and inserts)
- Set or re-set YTD_01 to YTD_12 (updates, inserts, and deletes)

Continuing with this calendar year example, the 12 Ledger/Stat YTD buckets correspond to 2011 calendar month ranges as shown in the following table:

Year-to-Date Data for Calendar Year 2011

YTD _01	YTD _02	YTD _03	YTD _04	YTD _05	YTD _06	YTD _07	YTD _08	YTD _09	YTD _10	YTD _11	YTD _12
Jan 2011	Jan to Feb 2011	Jan to Mar 2011	Jan to April 2011	Jan to May 2011	Jan to June 2011	Jan to July 2011	Jan to Aug 2011	Jan to Sep 2011	Jan to Oct 2011	Jan to Nov 2011	Jan to Dec 2011

For details on the relationships between Month-to-Date columns and Year-to-Date columns, see Appendix : Financial Element Aggregation Methods, page E-1.

Using a Fiscal Year Configuration with a 12-Month Duration

In this example, the FSI-FISCAL-YEAR-INFO table holds the following values:

- Start Month = 4
- Fiscal Period = 12

Since the fiscal period in this example is 12 months long so we can refer to the fiscal period as a fiscal year. In this fiscal year example, the months for the fiscal year correspond to Ledger/Stat monthly buckets as shown in the following table:

Monthly Data for Fiscal Year 2011

YEAR _S value	MT D _01	MT D _02	MT D _03	MT D _04	MT D _05	MT D _06	MT D _07	MT D _08	MT D _09	MT D _10	MT D _11	MT D _12
2011	Apr 2011	May 2011	June 2011	July 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012

For this fiscal year example, the first calendar month of the 2011 fiscal year is April, 2011, and the last calendar month of the 2011 fiscal year is March, 2012. Note that all business data for fiscal year 2011 is stored in Ledger/Stat where every row has the same YEAR-S value of 2011. If you were to set your As-of-Date to January 31, 2012 and then

execute an allocation rule that output to Ledger/Stat, the allocation engine would write its month-to-date results to the MTD-10 column with YEAR-S equal to 2011.

Continuing with this fiscal year example, the 12 Ledger/Stat YTD buckets correspond to 2011 fiscal year YTD ranges as shown in the following table:

Year-to-Date Data for Fiscal Year 2011

YEAR	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD
_S	_01	_02	_03	_04	_05	_06	_07	_08	_09	_10	_11	_12
value												
2011	Apr	Apr	Apr	Apr	Apr	Apr	Apr	Apr	Apr	Apr	Apr	Apr
	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011
		to	to	to	to	to	to	to	to	to	to	to
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
		2011	2011	2011	2011	2011	2011	2011	2011	2012	2012	2012

For details on the relationships between Month-to-Date columns and Year-to-Date columns, see Appendix : Financial Element Aggregation Methods, page E-1.

Using a Fiscal Year Configuration with a 6-Month Duration

In this example, the FSI-FISCAL-YEAR-INFO table holds the following values:

- Start Month = 4
- Fiscal Period = 6

Since in this example the Fiscal Period is 6, we are no longer dealing with a Fiscal Year, but with two fiscal periods within a 12-month time span. In this fiscal period example, there are two 6-month fiscal periods within the 12 month window beginning April, 2011. Just as in the previous 12-month fiscal year example, the months for the two fiscal periods correspond to Ledger/Stat monthly buckets as shown in the following table:

Monthly Data for Fiscal Period #1, 2011 and Fiscal Period #2, 2011

YEAR	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
_S	D	D	D	D	D	D	D	D	D	D	D	D
value	_01	_02	_03	_04	_05	_06	_07	_08	_09	_10	_11	_12
2011	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	2011	2011	2011	2011	2011	2011	2011	2011	2011	2012	2012	2012

Continuing with this fiscal period example, the 12 Ledger/Stat YTD buckets correspond

to the two 2011 fiscal period YTD ranges (actually, fiscal period-to-date ranges) as shown in the following table:

Fiscal Period-to-Date Data for Fiscal Period #1, 2011 and Fiscal Period #2, 2011

YEAR _S value	YTD _01	YTD _02	YTD _03	YTD _04	YTD _05	YTD _06	YTD _07	YTD _08	YTD _09	YTD _10	YTD _11	YTD _12
2011	Apr 2011	Apr 2011	Apr 2011	Apr 2011	Apr 2011	Apr 2011	Oct 2011	Oct 2011	Oct 2011	Oct 2011	Oct 2011	Oct 2011
		to May 2011	to Jun 2011	to Jul 2011	to Aug 2011	to Sep 2011		to Nov 2011	to Dec 2011	to Jan 2012	to Feb 2012	to Mar 2012

Note that in this fiscal period example:

- The first calendar month of the first fiscal period is April, 2011
- The last calendar month of the first fiscal period is September, 2011
- The first calendar month of the second fiscal period is October, 2011
- The last calendar month of the second fiscal period is March, 2012

Also note that, as in the previous fiscal year example, all business data for this two fiscal-period example is stored in Ledger/Stat where every row has the same YEAR-S value of 2011. If you were to set your As-of-Date to January 31, 2012 and then execute an allocation rule that output to Ledger/Stat, the allocation engine would write its month-to-date results to the MTD-10 column with YEAR-S equal to 2011. These results are identical to the earlier 12 month fiscal year example. The YTD calculations, however, for the two fiscal periods are different.

When performing year-to-date calculations where the fiscal period value is 6 months, OFSAA segments the financial year into two 6-month periods. "Year-to-Date" in the context of a multi-period fiscal configuration really means "fiscal period-to-date".

Using the Undo Function with a Fiscal Year Configuration

The allocation UNDO function removes the results of allocations from the Ledger/Stat table. The database function that operates against Ledger/Stat may be either an UPDATE or a DELETE. Generally speaking, the UNDO function operates as follows:

1. Examine each row generated by the allocation rule a specific month of which we intend to UNDO.

2. For each row, determine how many MTD columns in months other than the month currently being UNDONE contain non-zero values.
3. If the answer is zero, delete the row. If the answer is not zero, update the MTD column that is to be UNDONE with a value of zero and re-set all YTD columns in the fiscal period of the month we are UNDOING.

Examples

The following examples assumes you have run an allocation rule that posts data to Ledger/Stat for January, February, and March. When you perform an UNDO operation on the March execution:

- For any row in which either the January MTD column or the February MTD column contains a non-zero value.
 - The engine will update the March MTD column with a value of zero.
 - The engine will re-set (update) the YTD columns for each YTD column within the fiscal period of the month being UNDONE.
- The engine will delete any row in which neither the January MTD column nor the February MTD column contains a non-zero value.

With a Calendar Year configuration or with a Fiscal Year configuration, the re-setting of the YTD columns will affect all 12 YTD columns. However, with a Fiscal Period configuration (a configuration in which the Fiscal Period column in FSI-FISCAL-YEAR-INFO is set to 1, 2, 3, 4, or 6), the re-setting of YTD columns will only affect the YTD columns that fall within the same fiscal period as the month of the allocation that is being UNDONE.

Seeded Financial Elements

Financial Elements Listed By Number

Financial Element Number	Description	Primary Usage
60	Beginning Balance	ALM Output
70	Beginning Gross Rate	ALM Output
80	Beginning Net Rate	ALM Output
90	Beginning Transfer Rate	ALM Output
100	End Balance	Initial Load; or Profitability Management or ALM Output
110	Ending Gross Rate	ALM Output
120	Ending Net Rate	ALM Output
130	Ending Transfer Rate	ALM Output
140	Average Bal	Initial Load; or Profitability Management, FTP or ALM Output
141	Average Account Balance	ALM Output

Financial Element Number	Description	Primary Usage
142	Average Total Balance	ALM Output
143	Average Percentage Active	ALM Output
144	Average Volume Total	ALM Output
150	Average Gross Rate	ALM Output
160	Average Net Rate	ALM Output
170	Average Transfer Rate	Initial Load; or Profitability Management, FTP, or ALM Output
171	Average Historic Option Cost	ALM Output
172	Average Rem Term Transfer Rate	ALM Output
173	Average Current Option Cost	ALM Output
180	Prepay Runoff - Positive	ALM Output
181	Timing of Prepay Runoff - Positive	ALM Output
182	Prepay Runoff - Negative	ALM Output
183	Timing of Prepay Runoff - Negative	ALM Output
184	MOA Prepay Runoff	ALM Output
185	Timing of MOA Prepay Runoff	ALM Output
190	Payment Runoff - Positive	ALM Output
191	Timing of Payment Runoff - Positive	ALM Output

Financial Element Number	Description	Primary Usage
192	Payment Runoff - Negative	ALM Output
193	Timing of Payment Runoff - Negative	ALM Output
195	Maturity Runoff - Positive	ALM Output
196	Timing of Maturity Runoff - Positive	ALM Output
197	Maturity Runoff - Negative	ALM Output
198	Timing of Maturity Runoff - Negative	ALM Output
200	Non Maturity - Core Runoff	ALM Output
201	Timing of Non Maturity - Core Runoff	ALM Output
202	Non Maturity - Volatile Runoff	ALM Output
203	Timing of Non Maturity - Volatile Runoff	ALM Output
204	Devolvement Runoff	ALM Output
205	Timing of Devolvement Runoff	ALM Output
206	Recovery Runoff	ALM Output
207	Timing of Recovery Runoff	ALM Output
208	Non Performing Asset Runoff	ALM Output
209	Timing of Non Performing Asset Runoff	ALM Output
210	Total Runoff - Positive	ALM Output

Financial Element Number	Description	Primary Usage
211	Timing of Total Runoff - Positive	ALM Output
212	Total Runoff - Negative	ALM Output
213	Timing of Total Runoff - Negative	ALM Output
220	Total Runoff Gross Rate	ALM Output
225	Prepay Runoff Gross Rate	ALM Output
230	Total Runoff Net Rate	ALM Output
235	Prepay Runoff Net Rate	ALM Output
240	Total Runoff Transfer Rate	ALM Output
245	Prepay Runoff Transfer Rate	ALM Output
250	Repricing Balance	ALM Output
255	Repricing Balance At End	ALM Output
260	Before Repricing Gross Rate	ALM Output
270	After Repricing Gross Rate	ALM Output
280	Before Repricing Net Rate	ALM Output
290	After Repricing Net Rate	ALM Output
300	Before Reprice Transfer Rate	ALM Output
310	After Reprice Transfer Rate	ALM Output
320	Fully Indexed Gross Rate	ALM Output
330	Fully Indexed Net Rate	ALM Output

Financial Element Number	Description	Primary Usage
340	New Add Balance	ALM Output
341	Rollover Percentage	ALM Output
342	Net New Business	ALM Output
350	New Add Gross Rate	ALM Output
360	New Add Net Rate	ALM Output
370	New Add Transfer Rate	ALM Output
375	New Add Spread	ALM Output
380	Roll Add Balance	ALM Output
390	Roll Add Gross Rate	ALM Output
400	Roll Add Net Rate	ALM Output
410	Roll Add Transfer Rate	ALM Output
420	Interest	Initial Load; or Profitability Management or ALM Output
425	Interest Amount Gross	ALM Output
430	Interest Cash Flow	ALM Output
435	Interest Cash Flow Gross	ALM Output
437	Interest Cash Flow T-Rate	ALM Output
438	Interest CF (Without Offset)	ALM Output
440	Interest Accrued	ALM Output
441	Interest Accrued Net	ALM Output

Financial Element Number	Description	Primary Usage
442	Accrued Interest (Without Offset)	ALM Output
443	Accrued Interest Net (Without Offset)	ALM Output
445	Interest Accrued Gross	ALM Output
446	Interest Accrued Gross (current basis)	ALM Output
447	Accumulated Interest CF Net	ALM Output
448	Accumulated Interest CF Gross	ALM Output
449	Accumulated Interest CF Transfer Rate	ALM Output
450	Charge/Credit	Initial Load; or Profitability Management, FTP, or ALM Output
451	Historic Option Cost Charge/Credit	FTP Output
452	Charge/Credit Rem Term	FTP Output
453	Current Option Cost Charge/Credit	FTP Output
454	Interest Accrued Transfer Rate (Cur Bas)	ALM Output
455	Non Interest Income	Initial Load or Profitability Management
457	Non Interest Expense	Initial Load or Profitability Management
460	Accrued Interest Ending Balance	ALM Output

Financial Element Number	Description	Primary Usage
465	Total Currency Gain/Loss (Principal)	ALM Output
470	Accrued Interest Average Balance	ALM Output
475	Realized Currency Gain/Loss (Principal)	ALM Output
480	Interest Credited	ALM Output
485	Realized Currency Gain/Loss (Interest – Net)	ALM Output
486	Realized Currency Gain/Loss (Interest – Gross)	ALM Output
487	Realized Currency Gain/Loss (Interest – T-Rate)	ALM Output
490	Discount Rate	ALM Output
491	Timing of Cash Flow (in days)	ALM Output
500	WARM	ALM Output
510	Annual Prepayment Rate	ALM Output
515	Balance Before PrePay	ALM Output
520	Deferred End Balance	ALM Output
530	Deferred Average Balance	ALM Output
540	Deferred Runoff	ALM Output
550	Period Cap Balance	ALM Output
560	Period Cap Effect - Rate	ALM Output

Financial Element Number	Description	Primary Usage
570	Period Cap Effect - Amount	ALM Output
580	Life Cap Balance	ALM Output
590	Life Cap Effect - Rate	ALM Output
600	Life Cap Effect - Amount	ALM Output
610	Tease Balance	ALM Output
620	Tease Effect - Rate	ALM Output
630	Tease Effect - Amount	ALM Output
640	Neg-Am Balance	ALM Output
650	Neg-Am Interest	ALM Output
660	Gap Runoff	ALM Output
661	Gap Principal Runoff	ALM Output
662	Gap Repricing Runoff	ALM Output
663	Gap Deferred Runoff	ALM Output
670	Gap Runoff Term	ALM Output
671	Gap Interest Cash Flow Gross	ALM Output
672	Gap Interest Cash Flow Net	ALM Output
673	Gap Interest Cash Flow Transfer	ALM Output
674	Gap Accrued Interest Gross	ALM Output
675	Gap Accrued Interest Net	ALM Output

Financial Element Number	Description	Primary Usage
676	Gap Accrued Interest Transfer	ALM Output
677	Gap Interest Credited	ALM Output
680	Gap Runoff Gross Rate	ALM Output
681	Interest Accrued Gross Hist Fx Basis	ALM Output
682	Interest Accrued Net Hist Fx Basis	ALM Output
683	Interest Accrued Transfer Hist Fx Basis	ALM Output
690	Gap Runoff Net Rate	ALM Output
700	Gap Runoff Transfer Rate	ALM Output
710	Market Value	ALM Output
720	Duration	ALM Output
730	Convexity	ALM Output
760	Cur Pos Reprice Balance	ALM Output
765	Adj Cur Pos Reprice Balance	ALM Output
768	Cur Pos Before Reprice Rate	ALM Output
770	Cur Pos After Reprice Rate	ALM Output
775	Adj Cur Pos Reprice Rate	ALM Output
778	Cur Pos Before Reprice T-Rate	ALM Output
780	Cur Pos After Reprice T-Rate	ALM Output

Financial Element Number	Description	Primary Usage
785	Adj Cur Pos Reprice Transfer Rate	ALM Output
790	Cur Pos Runoff Balance	ALM Output
795	Adj Cur Pos Runoff Balance	ALM Output
800	Cur Pos Runoff Rate	ALM Output
805	Adj Cur Pos Runoff Rate	ALM Output
810	Cur Pos Runoff Transfer Rate	ALM Output
815	Adj Cur Pos Runoff Transfer Rate	ALM Output
820	Total Maturity/Repricing	ALM Output
830	Total Mat/Repricing Rate	ALM Output
840	Total Mat/Repricing Transfer Rate	ALM Output
900	Fee Income on Int. Bearing Acct.	ALM Output
905	Loan Fee Percentage	ALM Output
910	Tax Exempt Adjustment	ALM Output
920	Other Interest Income Adjustment	ALM Output
930	Federal Taxes	ALM Output
935	Local Taxes	ALM Output
940	Dividends	ALM Output

Financial Element Number	Description	Primary Usage
950	Accumulated Translation Amount	ALM Output
1001	Allocated_Amt	ALM Output
1101	Ending Balance per Account	ALM Output
1102	Ending Number of Accounts	ALM Output
1103	Percent of Active Ending Accounts	ALM Output
1104	Number of Active Accounts	ALM Output
1105	Ending Balance Unearned Discount	ALM Output
1106	Ending Gross Balance	ALM Output
1141	Average Account Balance (FE1141)	ALM Output
1142	Average Number of Accounts	ALM Output
1143	Average Percent Active Accounts	ALM Output
1144	Average Number of Active Accounts	ALM Output
1342	Net New Business (FE1342)	ALM Output
1343	New Balance Per Account	ALM Output
1344	Number of New Accounts	ALM Output
1660	Liquidity GAP Runoff (1661 + 1663)	ALM Output

Financial Element Number	Description	Primary Usage
1661	Liquidity GAP Principal Runoff	ALM Output
1663	Liquidity GAP Deferred Runoff	ALM Output
1670	Liquidity GAP Runoff Term	ALM Output
1671	Liquidity GAP Interest Cash Flow Gross	ALM Output
1672	Liquidity GAP Interest Cash Flow Net	ALM Output
1673	Liquidity GAP Interest Cash Flow Transfer Rate	ALM Output
1674	Liquidity GAP Accrued Interest Gross	ALM Output
1675	Liquidity GAP Accrued Interest Net	ALM Output
1676	Liquidity GAP Accrued Interest Transfer Rate	ALM Output
1677	Liquidity GAP Interest Credited	ALM Output
1678	Liquidity GAP Runoff Gross Rate	ALM Output
1679	Liquidity GAP Runoff Net Rate	ALM Output
1680	Liquidity GAP Runoff Transfer Rate	ALM Output
1794	Average Maturing Account Balance	ALM Output
1796	Number of Maturing Accounts	ALM Output

Financial Element Number	Description	Primary Usage
1823	Maturing Balance per Account	ALM Output
1824	Number of Maturing Active Accounts_24	ALM Output
1825	Percent of Active Maturing Accounts	ALM Output
1826	Number of Maturing Active Accounts_26	ALM Output
2001	Static Gross Par Balance	ALM Output
2002	Static Net Par Balance	ALM Output
2003	Static Deferred Balance	ALM Output
2004	Static Accrued Interest Balance	ALM Output
2005	Static Net Rate	ALM Output
2006	Static Transfer Rate	ALM Output
2007	Static Remaining Term	ALM Output
2008	Static Market Value	ALM Output
2009	Static Duration	ALM Output
9001	Interest Income	OFSPA Reporting Line
9002	Customer Break Funding Fees	OFSPA Reporting Line
9003	Amortization of Discount for Asset	OFSPA Reporting Line
9004	Amortization of Premium for Liability	OFSPA Reporting Line

Financial Element Number	Description	Primary Usage
9005	Pricing Incentive	OFSPA Reporting Line
9006	Credit for Other Allocated Liabilities	OFSPA Reporting Line
9007	Transfer Pricing Credit	OFSPA Reporting Line
9008	Credit for Liquidity	OFSPA Reporting Line
9009	Credit for Break Funding	OFSPA Reporting Line
9010	Central Bank Int. Income	OFSPA Reporting Line
9011	Credit for Float	OFSPA Reporting Line
9012	Early Redemption Fee	OFSPA Reporting Line
9013	Transfer Pricing Charge	OFSPA Reporting Line
9014	Charge for Liquidity	OFSPA Reporting Line
9015	Charge for Basis Risk	OFSPA Reporting Line
9016	Charge for Optionality	OFSPA Reporting Line
9017	Charge for Break Funding	OFSPA Reporting Line
9018	Charge for Other Allocated Assets	OFSPA Reporting Line
9019	Interest Expense	OFSPA Reporting Line
9020	Charge for Central Bank Reserves	OFSPA Reporting Line
9021	Amortization of Discount for Liability	OFSPA Reporting Line

Financial Element Number	Description	Primary Usage
9022	Amortization of Premium for Asset	OFSPA Reporting Line
9023	Economic Provision	OFSPA Reporting Line
9024	Deposit Insurance	OFSPA Reporting Line
9025	Credit for Loan Loss Reserve	OFSPA Reporting Line
9026	Credit for Equity	OFSPA Reporting Line
9027	Gross Fee Income	OFSPA Reporting Line
9028	Waived Fees	OFSPA Reporting Line
9029	Indirect Non-interest Income	OFSPA Reporting Line
9030	Direct Account Expense	OFSPA Reporting Line
9031	Indirect Distribution Expense	OFSPA Reporting Line
9032	Indirect Processing Expense	OFSPA Reporting Line
9033	Tax Expense	OFSPA Reporting Line
9034	Other Indirect Non-Interest Expense	OFSPA Reporting Line
9035	Average Balance	OFSPA Reporting Line
9036	Ending Balance	OFSPA Reporting Line
9037	Original Balance	OFSPA Reporting Line
9038	Float	OFSPA Reporting Line
9039	Allocated Loan Loss Reserve	OFSPA Reporting Line
9040	Other Allocated Assets	OFSPA Reporting Line

Financial Element Number	Description	Primary Usage
9041	Central Bank Reserve	OFSPA Reporting Line
9042	Other Allocated Liabilities	OFSPA Reporting Line
9043	Operating Risk Capital	OFSPA Reporting Line
9044	Credit Risk Capital	OFSPA Reporting Line
9045	Market Risk Capital	OFSPA Reporting Line
9046	Other Allocated Capital	OFSPA Reporting Line
9047	Interest Rate Risk Capital	OFSPA Reporting Line
9048	Liquidity Risk Capital	OFSPA Reporting Line
9050	Risk Weighted Average Balance	OFSPA Reporting Line

Debit & Credit Conventions

Conventions within the Management Ledger

Standard Accounting Conventions

Under standard double entry accounting rules, accounting transactions must contain balanced debits and credits. Additionally, when you post a debit to a debit account, you increase the running balance for that debit account; and when you post a credit to a debit account, you reduce the running balance for that debit account. Conversely, when you post a credit to a credit account, you increase the running balance for that credit account; and when you post a debit to a credit account, you reduce the running balance for that credit account.

Posting A	To A	Effect
Debit	Debit Account	Increases the running balance
Credit	Debit Account	Decreases the running balance
Credit	Credit Account	Increases the running balance
Debit	Credit Account	Decreases the running balance

For example, if you generate an accounting transaction for a new loan, your transaction would debit the appropriate asset GL account (a debit account) for the new loan thus increasing the running balance for the Loan GL account; and would credit cash (also a debit account) thus reducing the running balance for the Cash GL account.

Debit	Credit
New loan \$500	Cash (\$500)

Profitability Management Allocation Engine

The Profitability Management allocation engine generates complex accounting transactions that have the effect of increasing or decreasing running balances for the accounts that are debited or credited. A single allocation rule may generate dozens, hundreds, or even thousands of debits and credits. In constructing allocation rules, however, you must take care to ensure (1) that the resulting debits and credits constitute a balanced transaction and (2) that your debits and credits match your business intent when you constructed the rule.

The following example shows the result of an allocation rule that gathers expenses for all expense GL Accounts from Cost Center 100 (a total of \$4,500 of expense), debits three destination centers (Cost Centers 1, 2, and 3), and credits Cost Center 100. In this example, only 3 GL accounts have been booked to Cost Center 100 (expense accounts 1, 2, and 3). The effect of this rule is to assign all of the expenses in Cost Center 100 to Cost Centers 1, 2, and 3; and to "relieve" (credit) Cost Center 100 by the same amount.

Debit	Credit
Expense Account 1 for Center 1: \$300	Expense Account 1 for Center 100: (\$1,200)
Expense Account 1 for Center 2: \$400	Expense Account 2 for Center 100: (\$1,500)
Expense Account 1 for Center 3: \$500	Expense Account 3 for Center 100: (\$1,800)
Expense Account 2 for Center 1: \$400	
Expense Account 2 for Center 2: \$500	
Expense Account 2 for Center 3: \$600	
Expense Account 3 for Center 1: \$500	
Expense Account 3 for Center 2: \$600	
Expense Account 3 for Center 3: \$700	

In the example above, only expense accounts (debit accounts) are being debited or

credited because the allocation rule's Source was defined to focus on expense accounts. As a second example, imagine a similar allocation but for revenues booked to Cost Center 100 that you wish to distribute to Cost Centers 1, 2, and 3.

Debit	Credit
Revenue Account 1 for Center 100: (\$1,200)	Revenue Account 1 for Center 1: \$300
Revenue Account 2 for Center 100: (\$1,500)	Revenue Account 1 for Center 2: \$400
Revenue Account 3 for Center 100: (\$1,800)	Revenue Account 1 for Center 3: \$500
	Revenue Account 2 for Center 1: \$400
	Revenue Account 2 for Center 2: \$500
	Revenue Account 2 for Center 3: \$600
	Revenue Account 3 for Center 1: \$500
	Revenue Account 3 for Center 2: \$600
	Revenue Account 3 for Center 3: \$700

In this second example, only revenue accounts (credit accounts) are being debited or credited because the allocation rule's Source was defined to focus on revenue accounts. Note that in both examples, you need to take care in how you construct the definition of your allocation debits and credits to obtain the desired results. Generally, when you are allocating expenses or assets, you "target" receiving centers (or products or other dimensions) in your debit specification; and you offset the sources of those debit accounts in your credit specification. Conversely, when you are allocating revenues or liabilities or equity, you "target" receiving centers (or products or other dimensions) in your credit specification; and you offset the sources of those credit accounts in your debit specification.

Note that in both examples, the allocation rule's outputs were limited to only one type of account (debit accounts in the first example and credit accounts in the second example). When designing allocation rules, you generally need to take care that your allocation sources contain only one type of account. More specifically, you need to

analyze your target accounts types as will be explained below.

Allocation Engine Logic

When an allocation rule is configured to generate Ledger/Stat debits and credits, it generates two result sets: a debit result set and a credit result set. Generally, each row within a debit result set will be entirely composed of either debit balances or credit balances. Similarly, each row within a credit result set will generally be entirely composed of either debit balances or credit balances. Any given result set, however, may be composed of a mixture of both debit balances and credit balances. For this reason, it is important to explain in some detail the behavior of the allocation engine.

Debit Result Sets

In evaluating debit result sets, the allocation engine examines each row of output in order to determine its account type, i.e., to determine whether the row represents a debit balance or a credit balance. If a row represents debit balance, the allocation engine preserves the signage of the row (i.e., multiplies it by plus one); if the row a row represents credit balance, the allocation engine reverses the signage of the row (i.e., multiplies it by minus one).

Allocation Output Tab	Account Type of Output Row	Rule
Debit	Debit	Multiply by +1
Debit	Credit	Multiply by -1

Credit Result Sets

Similarly, in evaluating credit result sets, the allocation engine examines each row of output in order to determine its account type, i.e., to determine whether the row represents a debit balance or a credit balance. If a row represents credit balance, the allocation engine preserves the signage of the row (i.e., multiplies it by plus one); if the row a row represents debit balance, the allocation engine reverses the signage of the row (i.e., multiplies it by minus one).

Allocation Output Tab	Account Type of Output Row	Rule
Credit	Debit	Multiply by -1
Credit	Credit	Multiply by +1

Determining Account Type

In examining any output row (whether from an allocation's debit specification or its credit specification) the allocation engine employs the following logic:

- Examine the row's Financial Element
- Determine the value of the Financial Element's Account Type attribute
- If the Financial Element's Account Type attribute cannot determine account type, examine the row's Common Chart of Accounts (Common COA) value
- Determine the value of the Common COA's Account Type attribute

Determine the Account Type of the Financial Element

Account Type is a "dimension type" attribute that is shared by both the Financial Element and Common Chart of Accounts dimensions. Dimension type attributes are based upon simple dimensions, i.e., lists of dimension member values. The values of the Account Type dimension constitute detailed account types each of which is fundamentally either a debit type or a credit type.

Detailed Account Type Values

In order to determine whether a target output row is a Debit row or a Credit row, for every row, the allocation engine examines the Account Type associated with the row's Financial Element.

Account Type Dimension Members

Fundamental Account Type	Detailed Account Type
Debit	Dividends
	Earning Assets
	Interest Expense
	Non-Interest Expense
	Off Balance Sheet Payable
	Other Asset
	Statistical

Fundamental Account Type	Detailed Account Type
	Taxes
Credit	Equity
	Interest Bearing Liabilities
	Interest Income
	Non-Interest Income
	Off Balance Sheet Receivable
	Other Liability

In some cases, however, the Account Type associated with a row's Financial Element is ambiguous. For example, Financial Element 457 – Non-Interest Expense is clearly a debit account type (its detailed Account Type is Non-Interest Expense). The Account Type of Financial Element 100 – Ending Balance, however, is ambiguous. An Ending Balance could be either an asset or a liability. In such cases, the Account Type associated with a Financial Element is a special value called < Use Detailed Leaves >. What this means is that the engine should fall back upon the Common COA dimension to determine a row's Account Type.

Determine the Account Type of the Common Chart of Accounts

When a row's fundamental account type (DR or CR) cannot be determined from the Account Type attribute associated with its Financial Element (i.e., when the Account Type attribute takes on the special < Use Detail Leaves > value), the allocation engine determines the row's debit or credit status by examining the Account Type attribute associated with its Common Chart of Account value.

Practical Implications

Designing Allocation Rules

One approach for avoiding undesired allocation results is to ensure that your allocation Sources are limited to either debit accounts or to credit accounts. Another approach is to output your results to unambiguous Financial Elements, i.e., to Financial Elements whose account types are known with certainty. For example, when allocating balance-sheet balances, you need to ensure that your allocation Source definition is limited to 100% asset balances or to 100% liability balances. On the output side of an asset allocation, you might choose to debit a user-defined Financial Element whose Account Type is unambiguous (e.g., "Allocated Assets").

Designing General Ledger Extracts

When coding your General Ledger extract, you must map each of your ledger balances to specific Financial Element and Common Chart of Account values. Financial Element values are straightforward and easy to map, but if your ledger lacks a product dimension, it is not clear how you should map each source balance to a Common COA value. One approach you might use is to build 14 Common COA dimension member values each of which you associate with one of the 14 detailed Account Types (see table above). With this approach, you can easily map your initial ledger balances.

Signage Methods

When OFSAA is initially installed, you must choose one of three available Signage Methods that indicate how you have chosen to store balances in the Ledger/Stat table.

- Natural Signage Convention
- GAAP Signage Convention
- Reverse GAAP Signage Convention

One of these conventions is likely to reflect how balances are stored in your General Ledger, but you need not necessarily adopt the same convention in your OFSAA data model as was adopted in your General Ledger. This is a decision you need to make as you are designing your GL data extract.

Natural Signage Convention

Under the Natural Signage Convention, balances initially loaded into Ledger/Stat are almost always positively signed. The only time an initially loaded balance is negatively signed is when the balance in question is in a "contra" state. Accounts described as contra-accounts are normally in a "contra" state, i.e., their balances are normally negative. Examples of such accounts include loan loss reserves, depreciation and amortization. Any account, however, may be in a contra state, i.e., carry a negative balance.

GAAP Signage Convention

Under the GAAP signage convention, debit accounts (asset and expense balances) are generally stored with positive signage and credit accounts (liability, equity, and revenue balances) are generally stored with a negative signage. As with the Natural Signage convention, the exceptions are for balances that are in a "contra" state. Some prefer the GAAP signage convention over the Natural Signage convention because it is perceived to be easier to construct balance sheets when assets and liabilities are oppositely signed.

Reverse GAAP Signage Convention

Under the Reverse GAAP signage convention, debit accounts (asset and expense balances) are generally stored with negative signage and credit accounts (liability, equity, and revenue balances) are generally stored with a positive signage. As with the Natural Signage convention, the exceptions are for balances that are in a "contra" state. Some prefer the Reverse GAAP signage convention over either the Natural Signage convention or the GAAP Signage convention because it is perceived to be easier to construct income statements when revenues are positively signed and expenses are negatively signed.

Practical Implications

Choosing a Signage Convention

Signage conventions have evolved over time in order to simplify reporting processes. With modern reporting tools, your choice is not highly significant. The OFS Profitability Analytics BI solution, for example, automatically takes your choice of Signage into account when it builds multidimensional cubes from your Ledger/Stat table. Regardless of the convention you have chosen, OFSPA displays balance sheets and income statements using a visually pleasing "natural" convention (i.e., all balances, with understood exceptions, are shown as positive balances).

The Natural Signage convention is the most commonly recommended method for OFSAA implementations.

Implications for Allocation Rules

Your choice of Signage convention has no effect on the design of your allocation rules. To see why this is the case, examine the following examples.

- If you have chosen to store your expenses as negative numbers (Reverse GAAP convention), an allocation of expense from one cost center to another cost center will debit the receiving center with negative expense (signage is preserved) and will credit the source center with positive expense (signage is reversed)
- If you have chosen to store your liabilities as negative numbers (GAAP convention), a liability allocation from one cost center to another cost center will credit the target center with a negative liability balance (signage is preserved) and will debit the source center with a positive liability balance (signage is reversed)

In short, the allocation engine is indifferent to (and actually has no knowledge of) the Signage convention you have adopted.

Financial Element Aggregation Methods

Overview

There are a number of processes that insert into, update, or delete from the Ledger/Stat table.

- Ledger load processes
- Allocation rules
- Allocation UNDOs
- Direct transfer pricing of Ledger/Stat
- Transfer pricing rate migration to Ledger/Stat

Every process that inserts into, updates, or deletes from Ledger/Stat targets a single month-to-date balance (MTD_01 to MTD_12). At the same time, each such process calculates or re-calculates appropriate values for each of the 12 year-to-date balances (YTD_01 to YTD_12). For every row in the Ledger/Stat table, the relationship between month-to-date values and year-to-date values is governed by the Aggregation Method attribute of the Financial Element dimension.

Aggregation Methods

Aggregation Methods are assigned as attributes to Financial Elements. A dimension attribute, Aggregation Method is itself a simple dimension, i.e., it is defined by a list of values. The Aggregation Method dimension is a reserved dimension (meaning that you may not modify its membership). Additionally, Aggregation Method is a required attribute of the Financial Element (meaning that an Aggregation Method must be assigned to each Financial Element). An Aggregation Method is already assigned to each reserved Financial Element and you may not modify reserved Financial Elements. You must, however, assign an Aggregation Method to any user-defined Financial

Element that you create. The members of the Aggregation Method dimension are:

- Add
- Average
- Average by Days Weighted
- Beginning
- Last

The following descriptions are general in that they assume a normal calendar year configuration (for details on configuring a fiscal year calendar that does not begin in January and/or has a duration other than 12 months, see Appendix: Fiscal Year Information, page B-1).

Add

For Financial Elements having the "Add" Aggregation Method, each YTD value is calculated as the sum of each preceding month. For example, the value of YTD_04 for any row in Ledger/Stat for which the Financial Element has the Aggregation Method of "Add" is MONTH_01 + MONTH_02 + MONTH_03 + MONTH_04. The "Add" method is assigned to all income and expense type Financial Elements.

Average

For Financial Elements having the "Average" Aggregation Method, each YTD value is calculated as the average of each preceding month. For example, the value of YTD_04 for any row in Ledger/Stat for which the Financial Element has the Aggregation Method of "Average" is $(\text{MONTH}_{01} + \text{MONTH}_{02} + \text{MONTH}_{03} + \text{MONTH}_{04}) / 4$.

Average by Days Weighted

For Financial Elements having the "Average by Days Weighted" Aggregation Method, each YTD value is calculated as the weighted average of each preceding month. For example, the value of YTD_04 for any row in Ledger/Stat for which the Financial Element has the Aggregation Method of "Average by Days Weighted" is $[(\text{MONTH}_{01} \times 31) + (\text{MONTH}_{02} \times 28) + (\text{MONTH}_{03} \times 31) + (\text{MONTH}_{04} \times 30)] / (31 + 28 + 31 + 30)$. "Average by Days Weighted" calculations are not adjusted to use 29 days in leap years.

Beginning or Last

For Financial Elements having either the "Beginning" or "Last" Aggregation Method, each YTD value is equal to the value for MTD for the same month. For example, the value of YTD_04 for any row in Ledger/Stat for which the Financial Element has the Aggregation Method of "Beginning" or "Last" is simply MONTH_04.

SQL Hints

Overview

A typical Profitability Management implementation involves dozen, hundreds, or sometimes even thousands of distinct allocation rules. There is commonly a bell-curve distribution of processing times for each allocation rule. Some finish in seconds, some finish in minutes, and others may take hours to complete. An allocation's run time is normally closely related to the volume of data it generates, but there may be times when an allocation runs slower than it should due to stale database statistics, skews in the data being queried, a lack of appropriate indexes, or a poor execution plan generated by the database optimizer. Your DBA may be able to enhance the overall performance of the database by gathering database statistics more frequently, generating additional indexes, or by other tuning techniques. One such additional tuning technique is to add **hints** to your queries.

Beginning with release 5.6, Oracle Financial Services Profitability Management allows users to exploit SQL Hints to tune the performance of allocation rules. SQL Hints provide a mechanism to instruct the optimizer to choose a desired query execution plan based on specified hint criteria. The Profitability Management allocation engine reads user-defined hints that are stored in the FSI_SQL_HINTS_OPTIONS table.

Profitability Management supports 4 types of SQL hint:

- DML_HINT
- PERCENT_DIST_HINT
- TREE_FILTER_HINT
- FILTER_ON_HINT

Note:

- Hints must be defined by users; there are no default hints
- There is currently no user interface for the definition of hints. Your DBA can assist you in defining, testing, and optimizing SQL Hints. SQL Hints must be manually inserted into the FSI-SQL-HINTS-OPTIONS table.
- The FSI-SQL-HINTS-OPTIONS table is uniquely indexed by (1) the system identifier (SYS-ID-NUM) of the rule to which the hint applies and (2) by the allocation engine's PROCESS-ENGINE-CD (zero). Currently, only the Profitability Management engine supports SQL Hints; additional analytical application engines may support SQL Hints in future releases.
- You may determine an allocation's SYS-ID-NUM by performing a **mouse-over** on the allocation rule's name in the Allocation Specification summary screen.
- Hints are limited to 250 characters
- DML_HINT and FILTER_ON_HINT are applicable to all types of allocations.
- TREE_FILTER_HINT is applicable only to allocation rules that include a Hierarchy Filter.
- PERCENT_DIST_HINT is applicable only to Dynamic Driver allocations.

Types of SQL hints

Profitability Management supports four types of SQL hints.

Filter On Hint

A hint inserted into the FILTER_ON_HINT column will be applied to the SELECT query on the allocation's source table (LEDGER_STAT, Instrument Table, or Transaction Summary Table).

Tree Filter Hint

For an allocation rule using a Hierarchy Filter, the hint text specified in the TREE_FILTER_HINT column will be applied to sub-selects from the OFSA_IDT_ROLLUP table.

Percent Distribution Hint

A hint inserted to the PERCENT_DIST_HINT column will be applied to the SELECT statement that acquires driver data for Dynamic Driver allocation rules.

DML Hint

A hint inserted into the DML_HINT column will be applied to DML operations that insert into or update target tables, that is, Debit or Credit operations. Note that hints that specify database parallelism for DML operations will be ineffective unless you have enabled DML parallelism in FSI_PARALLEL_PARAMETERS (see Appendix : Profitability Management Parallel Execution, page G-1).

How to use SQL Hints

To enable one or more SQL Hints for an allocation rule, you must generate appropriate entries into the FSI-SQL-HINTS-OPTIONS table for the allocation rule to which you want your hints to apply. For general guidance on SQL Hints, see *Oracle Database Performance Tuning Guide*.

Following is a sample query to insert a FILTER ON HINT and a TREE FILTER HINT into FSI-SQL-HINTS-OPTIONS:

```
INSERT INTO FSI_SQL_HINTS_OPTIONS
  (SYS_ID_NUM,
   PROCESS_ENGINE_CD,
   FILTER_ON_HINT,
   DML_HINT,
   TREE_FILTER_HINT,
   PERCENT_DIST_HINT)
VALUES
  (201230,
   0,
   '/*+ parallel(ledger_stat, 8)*/',
   ,
   '/*+ parallel(ofsa_idt_rollup, 2)*/',
   ,
   )
```

In this example:

- SYS_ID_NUM is the system identifier for the allocation rule to which the hint is applicable. You may determine the system identifier for an allocation rule by performing a **mouse-over** on the rule's name in the Allocation Specification summary screen.
- PROCESS_ENGINE_CD is set to a value of zero for the Profitability Management engine. Other Oracle Financial Services Analytical Applications (OFSAA) engines may support SQL Hints in future releases.

In designing hints to enhance the performance of slow running rules, your DBA will

typically begin by capturing the slow running SQL. You may capture the SQL generated by an allocation rule from the OFSAA log files (first set Profitability Management -> Application Preferences -> Debugging Output Level to Show All SQL) or through generic database tracing (For more information about using Application Tracing Tools, see *Oracle Database Performance Tuning Guide*). Once your DBA has captured the slow running SQL and its execution plan, he or she can experiment offline to determine what form of hint will provide the best performance.

Sample Queries

Several examples follow of DML statements that the allocate engine will issue to generate debits and credits. These examples illustrate where the four kinds of supported hints would be inserted into the queries. Note that while these examples all demonstrate hints that suggest parallelism to the database optimizer, you may utilize any valid form of hint.

Filter on Hint:

```

MERGE INTO LEDGER_STAT TARGET
  USING (
SELECT C.*
FROM (
SELECT 11002.000000 identity_code, 1994 year_s, 'D'
      accum_type_cd, 100 consolidation_cd, 101 balance_type_cd, 'USD'
      ISO_CURRENCY_CD, 457.000000 FINANCIAL_ELEM_ID, ORG_UNIT_ID,
      GL_ACCOUNT_ID, 821.000000 COMMON_COA_ID, PRODUCT_ID, (
      SOURCE_AMOUNT + leaf_amount ) * 1 BALANCE_AMOUNT
from (SELECT /*+ parallel(ledger_stat, 8) */ row_number() over (partition
by a.PRODUCT_ID,
  a.GL_ACCOUNT_ID, a.ORG_UNIT_ID order by a.PRODUCT_ID, a.GL_ACCOUNT_ID,
a.ORG_UNIT_ID) rw , SUM(DECODE(COMMON_COA_ID, 101, 0,
  DECODE(a.year_s, 1994, a.month_03, 0)) ) over (partition by
  a.PRODUCT_ID, a.GL_ACCOUNT_ID, a.ORG_UNIT_ID) SOURCE_AMOUNT,
  SUM(DECODE(COMMON_COA_ID, 101, DECODE(a.year_s, 1994, a.month_03,
  0), 0)) over ( partition by a.PRODUCT_ID, a.GL_ACCOUNT_ID,
  a.ORG_UNIT_ID ) leaf_amount , a.PRODUCT_ID, a.GL_ACCOUNT_ID,
  a.ORG_UNIT_ID
from LEDGER_STAT a
where (a.COMMON_COA_ID=820
OR a.COMMON_COA_ID=101)
and (((a.IDENTITY_CODE = 0)
or (a.IDENTITY_CODE = 1)
or (a.IDENTITY_CODE = 700)
or (a.IDENTITY_CODE = 779)))
and (a.identity_code) IN (select distinct a.parent_identity_code
from FSI_M_DATA_IDENTITY_DETAIL a
where a.identity_code in (11002)
and a.as_of_date = '03/ 31/ 1994'
and a.src_drv_type in ('S' , 'D') )
and a.year_s IN (1994) )
where rw = 1 ) C ) SOURCE ON (TARGET.FINANCIAL_ELEM_ID =
  457.000000
AND TARGET.ORG_UNIT_ID = SOURCE.ORG_UNIT_ID
AND TARGET.GL_ACCOUNT_ID = SOURCE.GL_ACCOUNT_ID
AND TARGET.COMMON_COA_ID = 821.000000
AND TARGET.PRODUCT_ID = SOURCE.PRODUCT_ID
AND TARGET.YEAR_S = 1994
AND TARGET.IDENTITY_CODE = 11002.000000
AND TARGET.ISO_CURRENCY_CD = SOURCE.ISO_CURRENCY_CD
AND TARGET.CONSolidATION_CD = 100
AND TARGET.ACCUM_TYPE_CD = 'D' ) WHEN MATCHED THEN
UPDATE
SET TARGET.MONTH_03 = TARGET.MONTH_03 + SOURCE.BALANCE_AMOUNT,
  BALANCE_TYPE_CD = 101, ytd_03 = ytd_02 + SOURCE.BALANCE_AMOUNT ,
  ytd_04 = ytd_03 + month_04 , ytd_05 = ytd_04 + month_05 , ytd_06
= ytd_05 + month_06 , ytd_07 = ytd_06 + month_07 , ytd_08 =
  ytd_07 + month_08 , ytd_09 = ytd_08 + month_09 , ytd_10 = ytd_09
+ month_10 , ytd_11 = ytd_10 + month_11 , ytd_12 = ytd_11 +
  month_12 WHEN NOT MATCHED THEN
INSERT (FINANCIAL_ELEM_ID, ORG_UNIT_ID, GL_ACCOUNT_ID,
COMMON_COA_ID, PRODUCT_ID, ACCUM_TYPE_CD, BALANCE_TYPE_CD,
CONSOLIDATION_CD, CURRENCY_TYPE_CD, ISO_CURRENCY_CD,
IDENTITY_CODE, MONTH_01, MONTH_02, MONTH_03, MONTH_04, MONTH_05,
MONTH_06, MONTH_07, MONTH_08, MONTH_09, MONTH_10, MONTH_11,
MONTH_12, YTD_01, YTD_02, YTD_03, YTD_04, YTD_05, YTD_06, YTD_07,
YTD_08, YTD_09, YTD_10, YTD_11, YTD_12, YEAR_S )
VALUES ( 457.000000, SOURCE.ORG_UNIT_ID, SOURCE.GL_ACCOUNT_ID,
  821.000000, SOURCE.PRODUCT_ID, 'D' , 101 , 100 , 0 ,
  SOURCE.ISO_CURRENCY_CD, 11002.000000 , 0.0, 0.0,

```

```
SOURCE.BALANCE_AMOUNT, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0,
0.0, 0, 0, SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT , 1994)
```

Tree Filter Hint:


```

MERGE INTO LEDGER_STAT TARGET
  USING (
SELECT 11040.000000 identity_code, 1994 year_s, 'D'
  accum_type_cd , 100 consolidation_cd , 101 balance_type_cd,'USD'
  ISO_CURRENCY_CD, 10900.000000 FINANCIAL_ELEM_ID, ORG_UNIT_ID,
  GL_ACCOUNT_ID, COMMON_COA_ID, PRODUCT_ID, SOURCE_AMOUNT * 1
  BALANCE_AMOUNT
from (SELECT row_number() over (partition by a.PRODUCT_ID,
  a.COMMON_COA_ID
order by a.PRODUCT_ID, a.COMMON_COA_ID)rw, SUM(DECODE(a.year_s, 1994,
  a.month_03, 0) * 2 ) over (partition by a.PRODUCT_ID,
  a.COMMON_COA_ID) SOURCE_AMOUNT , a.PRODUCT_ID, a.COMMON_COA_ID ,
  a.GL_ACCOUNT_ID, a.ORG_UNIT_ID
from LEDGER_STAT a
where a.FINANCIAL_ELEM_ID=100
and a.ORG_UNIT_ID=2100
and a.GL_ACCOUNT_ID IN (SELECT /*+ parallel (ofsa_idt_rollup,
  8) */ leaf_node
FROM OFSA_IDT_ROLLUP
WHERE OFSA_IDT_ROLLUP.sys_id_num = 2000779
and (OFSA_IDT_ROLLUP.leaf_node = 101301))
and ((a.CONSolidation_CD = '100'))
and ((a.IDENTITY_CODE = 0)))
and (a.identity_code) IN (select distinct a.parent_identity_code
from FSI_M_DATA_IDENTITY_DETAIL a
where a.identity_code in (11040)
and a.as_of_date = '03/ 31/ 1994'
and a.src_drv_type = 'S' )
and a.year_s IN (1994) )
where rw = 1 ) SOURCE ON (TARGET.FINANCIAL_ELEM_ID = 10900.000000
AND TARGET.ORG_UNIT_ID = SOURCE.ORG_UNIT_ID
AND TARGET.GL_ACCOUNT_ID = SOURCE.GL_ACCOUNT_ID
AND TARGET.COMMON_COA_ID = SOURCE.COMMON_COA_ID
AND TARGET.PRODUCT_ID = SOURCE.PRODUCT_ID
AND TARGET.YEAR_S = 1994
AND TARGET.IDENTITY_CODE = 11040.000000
AND TARGET.ISO_CURRENCY_CD = SOURCE.ISO_CURRENCY_CD
AND TARGET.CONSolidation_CD = 100
AND TARGET.ACCUM_TYPE_CD = 'D' ) WHEN MATCHED THEN
UPDATE
SET TARGET.MONTH_03 = TARGET.MONTH_03 + SOURCE.BALANCE_AMOUNT,
  BALANCE_TYPE_CD = 101, ytd_03 = ((ytd_02* 2) +
  SOURCE.BALANCE_AMOUNT )/ 3 , ytd_04 = ((ytd_03* 3) + month_04 )/
  4 , ytd_05 = ((ytd_04* 4) + month_05 )/ 5 , ytd_06 = ((ytd_05* 5)
  + month_06 )/ 6 , ytd_07 = ((ytd_06* 6) + month_07 )/ 7 , ytd_08
  = ((ytd_07* 7) + month_08 )/ 8 , ytd_09 = ((ytd_08* 8) + month_09
  )/ 9 , ytd_10 = ((ytd_09* 9) + month_10 )/ 10 , ytd_11 =
  ((ytd_10* 10) + month_11 )/ 11 , ytd_12 = ((ytd_11* 11) +
  month_12 )/ 12 WHEN NOT MATCHED THEN
INSERT (FINANCIAL_ELEM_ID, ORG_UNIT_ID, GL_ACCOUNT_ID,
  COMMON_COA_ID, PRODUCT_ID, ACCUM_TYPE_CD, BALANCE_TYPE_CD,
  CONSOLIDATION_CD, CURRENCY_TYPE_CD, ISO_CURRENCY_CD,
  IDENTITY_CODE, MONTH_01, MONTH_02, MONTH_03, MONTH_04, MONTH_05,
  MONTH_06, MONTH_07, MONTH_08, MONTH_09, MONTH_10, MONTH_11,
  MONTH_12, YTD_01, YTD_02, YTD_03, YTD_04, YTD_05, YTD_06, YTD_07,
  YTD_08, YTD_09, YTD_10, YTD_11, YTD_12, YEAR_S )
VALUES ( 10900.000000, SOURCE.ORG_UNIT_ID, SOURCE.GL_ACCOUNT_ID,
  SOURCE.COMMON_COA_ID, SOURCE.PRODUCT_ID, 'D' , 101 , 100 , 0 ,
  SOURCE.ISO_CURRENCY_CD, 11040.000000 , 0.0, 0.0,
  SOURCE.BALANCE_AMOUNT, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0,
  0.0, 0, 0, (SOURCE.BALANCE_AMOUNT) / 3, ((

```

```

(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4, (((
(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5, ((((((
(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5) / 6, (((((((
(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5) / 6)* 6) / 7,
(((((((((( (SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5) /
6)* 6) / 7)* 7) / 8, ((((((((((( (SOURCE.BALANCE_AMOUNT) / 3)*
3) / 4)* 4) / 5)* 5) / 6)* 6) / 7)* 7) / 8)* 8) / 9,
(((((((((((((((( (SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5)
/ 6)* 6) / 7)* 7) / 8)* 8) / 9)* 9) / 10, (((((((((((((((((((
(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5) / 6)* 6) / 7)*
7) / 8)* 8) / 9)* 9) / 10)* 10) / 11, (((((((((((((((((((
(SOURCE.BALANCE_AMOUNT) / 3)* 3) / 4)* 4) / 5)* 5) / 6)* 6) / 7)*
7) / 8)* 8) / 9)* 9) / 10)* 10) / 11)* 11) / 12 , 1994)

```

Pct Distr Hint:

```

MERGE INTO FSI_D_MERCHANT_CARDS TARGET USING (SELECT SUM
  (IVW_SOURCE.IVW_TARGET_AMOUNT) TARGET_AMOUNT , IDENTITY_CODE,
  ID_NUMBER
FROM (
SELECT ( Src.SOURCE_AMOUNT * Drv.driv_factor) IVW_TARGET_AMOUNT,
Drv.IDENTITY_CODE, Drv.ID_NUMBER
FROM (SELECT SUM(DECODE(a.year_s, 1994, a.month_03, 0) )
SOURCE_AMOUNT
FROM LEDGER_STAT a
where a.FINANCIAL_ELEM_ID=100
and a.ORG_UNIT_ID=2100
and a.GL_ACCOUNT_ID IN (SELECT leaf_node
FROM OFSA_IDT_ROLLUP
WHERE OFSA_IDT_ROLLUP.sys_id_num = 2000779
and (OFSA_IDT_ROLLUP.leaf_node = 101301))
and ((a.CONSolidATION_CD = '100'))
and ((a.IDENTITY_CODE = 0)))
and (a.identity_code) IN (select distinct a.parent_identity_code
from FSI_M_DATA_IDENTITY_DETAIL a
where a.identity_code in (10316)
and a.as_of_date = '03/ 31/ 1994'
and a.src_drv_type = 'S' )
and a.year_s IN (1994)) Src , (SELECT ( ColVal / mTotal )
driv_factor , IDENTITY_CODE, ID_NUMBER
from (SELECT /*+ parallel(FSI_D_MERCHANT_CARDS, 8) */
a.IDENTITY_CODE, a.ID_NUMBER, (TOTAL_TRANSACTIONS) ColVal, (SUM
(TOTAL_TRANSACTIONS) OVER()) mTotal
from FSI_D_MERCHANT_CARDS a
where a.GL_ACCOUNT_ID=101301
and a.as_of_date='03/ 31/ 1994')
WHERE mTotal <> 0) Drv) IVW_SOURCE
WHERE IVW_TARGET_AMOUNT <> 0
GROUP BY IDENTITY_CODE , ID_NUMBER ) SOURCE ON
(SOURCE.IDENTITY_CODE = TARGET.IDENTITY_CODE
AND SOURCE.ID_NUMBER = TARGET.ID_NUMBER ) WHEN MATCHED THEN
UPDATE
SET IDENTITY_CODE_CHG = 10316.000000 , TARGET.ATM_EXP =
DECODE(identity_code_chg, 10316.000000, ATM_EXP, 0)+
(SOURCE.TARGET_AMOUNT * 1)

```

DML Hint:

```

MERGE /*+ parallel(ledger_stat, 4) */ INTO LEDGER_STAT TARGET
  USING (SELECT (SUM (IVW_SOURCE.IVWSRC_AMOUNT) * 1 )
    BALANCE_AMOUNT, ORG_UNIT_ID, GL_ACCOUNT_ID, PRODUCT_ID
  FROM (SELECT (Src.src_amount * Drv.driv_factor) IVWSRC_AMOUNT,
    Src.ORG_UNIT_ID, Src.GL_ACCOUNT_ID, Src.PRODUCT_ID
  FROM (SELECT SUM(DECODE(a.year_s, 1994, a.month_03, 0) )
    src_amount , a.GL_ACCOUNT_ID, a.PRODUCT_ID, a.ORG_UNIT_ID
  from LEDGER_STAT a
  where (((a.IDENTITY_CODE = 0)
  or (a.IDENTITY_CODE = 1)
  or (a.IDENTITY_CODE = 700)
  or (a.IDENTITY_CODE = 779)))
  and (a.identity_code) IN (select distinct a.parent_identity_code
  from FSI_M_DATA_IDENTITY_DETAIL a
  where a.identity_code in (10993)
  and a.as_of_date = '03/ 31/ 1994'
  and a.src_drv_type = 'S' )
  and a.year_s IN (1994)
  GROUP BY a.GL_ACCOUNT_ID, a.PRODUCT_ID, a.ORG_UNIT_ID) Src JOIN
  (SELECT (ColVal/ mTotal) Drv_factor, ORG_UNIT_ID
  FROM (SELECT ROW_NUMBER() OVER (PARTITION BY a.ORG_UNIT_ID
  ORDER BY a.ORG_UNIT_ID) rw, (SUM(DECODE(a.year_s, 1994,
  a.month_03, 0)) over (PARTITION BY a.ORG_UNIT_ID ))ColVal,
  (SUM(DECODE(a.year_s, 1994, a.month_03, 0)) over(PARTITION BY
  a.ORG_UNIT_ID ))mTotal, a.ORG_UNIT_ID
  from LEDGER_STAT a
  where (((a.IDENTITY_CODE = 0)
  or (a.IDENTITY_CODE = 1)
  or (a.IDENTITY_CODE = 700)
  or (a.IDENTITY_CODE = 779)))
  and a.year_s IN (1994) AND(a.ORG_UNIT_ID) IN (SELECT ORG_UNIT_ID
  FROM (SELECT SUM(DECODE(a.year_s, 1994, a.month_03, 0) )
    src_amount , a.GL_ACCOUNT_ID, a.PRODUCT_ID, a.ORG_UNIT_ID
  from LEDGER_STAT a
  where (((a.IDENTITY_CODE = 0)
  or (a.IDENTITY_CODE = 1)
  or (a.IDENTITY_CODE = 700)
  or (a.IDENTITY_CODE = 779)))
  and (a.identity_code) IN (select distinct a.parent_identity_code
  from FSI_M_DATA_IDENTITY_DETAIL a
  where a.identity_code in (10993)
  and a.as_of_date = '03/ 31/ 1994'
  and a.src_drv_type = 'S' )
  and a.year_s IN (1994)
  GROUP BY a.GL_ACCOUNT_ID, a.PRODUCT_ID, a.ORG_UNIT_ID) ))
  WHERE RW = 1
  AND mTotal <> 0
  AND ColVal <> 0) Drv ON (Src.ORG_UNIT_ID = Drv.ORG_UNIT_ID) )
  IVW_SOURCE
  where IVWSRC_AMOUNT <> 0
  GROUP BY ORG_UNIT_ID, GL_ACCOUNT_ID, PRODUCT_ID ) SOURCE ON
  (TARGET.FINANCIAL_ELEM_ID = 457.000000
  AND TARGET.ORG_UNIT_ID = SOURCE.ORG_UNIT_ID
  AND TARGET.GL_ACCOUNT_ID = SOURCE.GL_ACCOUNT_ID
  AND TARGET.COMMON_COA_ID = 821.000000
  AND TARGET.PRODUCT_ID = SOURCE.PRODUCT_ID
  AND TARGET.YEAR_S = 1994
  AND TARGET.IDENTITY_CODE = 10993.000000
  AND TARGET.ISO_CURRENCY_CD = 'USD'
  AND TARGET.CONSolidATION_CD = 100
  AND TARGET.ACCUM_TYPE_CD = 'D' ) WHEN MATCHED THEN

```

```

UPDATE
SET TARGET.MONTH_03 = TARGET.MONTH_03 + SOURCE.BALANCE_AMOUNT,
  BALANCE_TYPE_CD = 101, ytd_03 = ytd_02 + SOURCE.BALANCE_AMOUNT ,
  ytd_04 = ytd_03 + month_04 , ytd_05 = ytd_04 + month_05 , ytd_06
= ytd_05 + month_06 , ytd_07 = ytd_06 + month_07 , ytd_08 =
  ytd_07 + month_08 , ytd_09 = ytd_08 + month_09 , ytd_10 = ytd_09
+ month_10 , ytd_11 = ytd_10 + month_11 , ytd_12 = ytd_11 +
  month_12 WHEN NOT MATCHED THEN
INSERT (FINANCIAL_ELEM_ID, ORG_UNIT_ID, GL_ACCOUNT_ID,
  COMMON_COA_ID, PRODUCT_ID, ACCUM_TYPE_CD, BALANCE_TYPE_CD,
  CONSOLIDATION_CD, CURRENCY_TYPE_CD, ISO_CURRENCY_CD,
  IDENTITY_CODE, MONTH_01, MONTH_02, MONTH_03, MONTH_04, MONTH_05,
  MONTH_06, MONTH_07, MONTH_08, MONTH_09, MONTH_10, MONTH_11,
  MONTH_12, YTD_01, YTD_02, YTD_03, YTD_04, YTD_05, YTD_06, YTD_07,
  YTD_08, YTD_09, YTD_10, YTD_11, YTD_12, YEAR_S )
VALUES ( 457.000000, SOURCE.ORG_UNIT_ID, SOURCE.GL_ACCOUNT_ID,
  821.000000, SOURCE.PRODUCT_ID, 'D' , 101 , 100 , 0 , 'USD' ,
  10993.000000 , 0.0, 0.0, SOURCE.BALANCE_AMOUNT, 0.0, 0.0, 0.0,
  0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0, 0, SOURCE.BALANCE_AMOUNT ,
  SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
  SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
  SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
  SOURCE.BALANCE_AMOUNT , SOURCE.BALANCE_AMOUNT ,
  SOURCE.BALANCE_AMOUNT , 1994)

```

Profitability Management Parallel Execution

Overview

Profitability Management implementations frequently employ dozens, hundreds or even thousands of allocation rules. Frequently, many of these rules must be executed sequentially and in larger implementations, end-to-end execution times may exceed allowable thresholds. One way to reduce end-to-end runtimes is to execute as many processes as possible in parallel. For example, running Funds Transfer Pricing against multiple instrument tables simultaneously. You may also find that you can run some allocations processes concurrently. Other ways to reduce your end-to-end runtimes include tuning your database, employing hints on your slowest running allocations (see Appendix SQL Hints, page F-1), or upgrading your hardware (more CPUs, more memory, faster I/O subsystems, and so on). Having a more powerful database server, however, will not improve your performance if hardware resources are left idle. When executing allocation rules serially, you will generally utilize only a single CPU on your database server.

Beginning with release 5.6, Oracle Financial Services Profitability Management allows you to exploit Oracle Parallel Execution. To capture what might otherwise be idle system resources, Oracle Parallel Execution subdivides SQL statements into multiple independent units of work each of which can run in parallel.

The Oracle database supports parallel execution of SQL statements through the use of:

- The PARALLEL clause for selected tables and indexes
- Parallel hints
- Alter Session statements to enable subsequent SQL operations to run in parallel

Working with your DBA, you may choose to establish specific degrees of parallelism for selected tables and indexes utilizing the PARALLEL clause. You may also elect to employ **parallel** SQL Hints on selected allocation rules (see Appendix SQL Hints, page F-1). Either of these approaches may be employed to encourage the database the run

SELECT statements in parallel (Parallel Query), but the third mechanism is required if you want to encourage the database to run DML statements in parallel (UPDATE, INSERT, DELETE, MERGE, and so on). Employing Parallel Query can help, but most allocation execution time is consumed by DML queries where you are modifying the database. In order to exploit Parallel DML, the **session** from which a SQL query is issued must be specifically enabled for Parallel DML.

Each time an allocation rule is executed, a new database session is established. Beginning with release 5.6, each allocation starts by issuing a series of Alter Session statements based on parameters that you define in the FSI-PARALLEL-PARAMETERS table. This parameter table contains four parallel parameters as follows:

1. Parallel Query
2. Parallel DML
3. Parallel Degree
4. Parallel Degree Policy

There should be only one row in the FSI-PARALLEL-PARAMETERS table. Upon installation, this one row is seeded with the following values:

Column Name	Valid Values	Seeded Value
PROCESS_ENGINE_CD	0 for Profitability Management	0
PARALLEL_QUERY	Disable, Enable, or Force	Disable
PARALLEL_DML	Disable, Enable, or Force	Disable
PARALLEL_DEGREE	Integers between 0 and 99	Null
PARALLEL_DEGREE_POLICY	Manual, Limited, or Auto	Manual

The parameters values found in FSI-PARALLEL-PARAMETERS apply to all allocation rules. Currently, Oracle Parallel Execution is only supported for Profitability Management. OFSAA Funds Transfer Pricing and OFSAA Asset Liability Management employ a different technique for parallelism: OFSA Application Multiprocessing (for details on OFSA Application Multiprocessing, see the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide*).

```
UPDATE FSI-PARALLEL-PARAMETERS SET
PARALLEL_QUERY = 'ENABLE',
PARALLEL_DML = 'FORCE',
```

```
PARALLEL_DEGREE = NULL,  
PARALLEL_DEGREE_POLICY = 'AUTO';
```

The specific Alter Session statements generated by the allocation engine for the different possible parallel parameter values are discussed as follows.

Parallelism Options

The following discusses the behavior of the Profitability Management engine given different possible configuration options of the parameters found in FSI-PARALLEL-PARAMETERS. Oracle Parallel Execution refers to a rich set of core database functionality. For a thorough discussion of Oracle Parallel Execution, including Parallel Query and Parallel DML, see the listing of documentation resources found at the end of this appendix.

PARALLEL_QUERY

DISABLE

When the PARALLEL_QUERY option in the FSI-PARALLEL-PARAMETERS table is set to DISABLE, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION DISABLE PARALLEL QUERY;
```

Setting Parallel Query to DISABLE will ensure that no SELECT statement issued by the allocation engine will run in parallel.

ENABLE

When the PARALLEL_QUERY option in the FSI-PARALLEL-PARAMETERS table is set to ENABLE, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION ENABLE PARALLEL QUERY;
```

When Parallel Query is enabled, the database may elect to execute a SELECT statement in parallel if it is run against an object (table or index) that has been declared or altered through the use of the PARALLEL clause.

Two examples of the use of the PARALLEL clause to alter a table follow:

```
ALTER TABLE LEDGER_STAT PARALLEL 8;
```

```
ALTER TABLE LEDGER_STAT PARALLEL (DEGREE DEFAULT);
```

In the earlier first example, the database may elect to parallelize a SELECT statement against the Ledger/Stat table using a Degree of Parallelism equal to 8. In the second example, the database may elect to parallelize a SELECT statement against the Ledger/Stat table using the **default** Degree of Parallelism as determined by the database but only if PARALLEL_DEGREE_POLICY is set to Auto (default parallelism and PARALLEL_DEGREE_POLICY are discussed further as follows).

The database may also elect to execute a SELECT statement in parallel if a parallel SQL hint is included in the SELECT statement. A parallel SQL hint will override the Degree of Parallelism assigned to a table or index through the PARALLEL clause. If the tables and indexes against which a SELECT statement is executed have not been defined using the PARALLEL clause and if the SELECT statement does not include a parallel hint, then the SQL statement will always run serially (in a single thread).

If the tables and indexes against which a SELECT statement is executed have been defined using the PARALLEL clause or if the SELECT statement includes a parallel hint, the database may elect to run in parallel if it is possible to do so. The conditions necessary for the database to choose parallelize a query are complex and beyond the scope of this discussion – for details, see the listing of documentation resources found at the end of this appendix.

FORCE

When the PARALLEL_QUERY option in the FSI-PARALLEL-PARAMETERS table is set to FORCE and the PARALLEL_DEGREE parameter is set to NULL, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION FORCE PARALLEL QUERY;
```

After this ALTER SESSION statement, subsequent SELECT statements are executed with a **default** Degree of Parallelism unless (a) the objects against which the SELECT statement operates have been defined as having a specific Degree of Parallelism through the use of the PARALLEL clause or (b) the SELECT statement includes a parallel hint. Again, a parallel hint will override the Degree of Parallelism specified through a PARALLEL clause.

The default Degree of Parallelism is determined by the database and is generally a function of the number of CPU's on your server. For details on how the Oracle database determines the default Degree of Parallelism, see *Oracle Database VLDB and Partitioning Guide*.

FORCE with PARALLEL_DEGREE

When the PARALLEL_QUERY option in the FSI-PARALLEL-PARAMETERS table is set to FORCE and the PARALLEL_DEGREE parameter is set to a non-NULL integer value (8 in this example), the engine will begin each rule by issuing the following statement:

```
ALTER SESSION FORCE PARALLEL QUERY PARALLEL 8;
```

The subsequent behavior of Parallel Query is the same as where no specific Degree of Parallelism has been specified except that the database will employ the Degree of Parallelism you have set in your PARALLEL_DEGREE parameter instead of using the database's default Degree of Parallelism. Your PARALLEL_DEGREE parameter will override any Degree of Parallelism stemming from a PARALLEL clause associated with a table or index, but a Degree of Parallelism specified in a parallel hint will override your PARALLEL_DEGREE parameter setting.

Regardless of its value, the PARALLEL_DEGREE parameter is ignored when the

PARALLEL_QUERY parameter is set to either DISABLE or ENABLE.

PARALLEL_DML

Limitations in Using Parallel DML

A Parallel DML operation's lock requirements are very different from the serial DML requirements. For these and other reasons, the database imposes some restrictions on Parallel DML operations.

One such restriction is that while a single transaction can contain multiple parallel DML statements that modify different tables, after a parallel DML statement modifies a table no subsequent statement (DML or query) can access the same table again in the same transaction. For this reason, Parallel DML is disabled, regardless of your parameter settings, for any allocation rule that both debit and credit the same table. For allocation rules that both debit and credit the same table and which you want to ensure run in parallel, it is recommended that you divide your one allocation rule into two rules (one rule for the debit side and one rule for the credit side).

For more information regarding the restrictions on Parallel DML, see *Oracle Database Data Warehousing Guide*.

DISABLE

When the PARALLEL_DML option in the FSI-PARALLEL-PARAMETERS table is set to DISABLE, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION DISABLE PARALLEL DML;
```

Setting Parallel DML to DISABLE will ensure that no DML statement issued by the allocation engine will ever run in parallel.

ENABLE

When the PARALLEL_DML option in the FSI-PARALLEL-PARAMETERS table is set to ENABLE, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION ENABLE PARALLEL DML;
```

When Parallel DML is enabled, the database may elect to execute a DML statement in parallel if it is run against an object (table or index) that has been declared (or altered) using the PARALLEL clause.

The database may also elect to execute a DML statement in parallel if a parallel SQL hint is included in the DML statement. A parallel SQL hint will override the Degree of Parallelism assigned to a table or index through the PARALLEL clause. If the tables and indexes against which a SELECT statement is executed have not been defined using the PARALLEL clause and if the SELECT statement does not include a parallel hint, then the SQL statement will always run serially (in a single thread).

FORCE

When the `PARALLEL_DML` option in the `FSI-PARALLEL-PARAMETERS` table is set to `FORCE` and the `PARALLEL_DEGREE` parameter is set to `NULL`, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION FORCE PARALLEL DML;
```

After this `ALTER SESSION` statement, subsequent DML statements are executed with the default Degree of Parallelism for the database unless (a) the objects against which the `SELECT` statement operates have been defined as having a specific Degree of Parallelism through the use of the `PARALLEL` clause or (b) the `SELECT` statement includes a parallel hint. A parallel hint will override the Degree of Parallelism specified through a `PARALLEL` clause. Again, for details on how the Oracle database determines the default Degree of Parallelism, see *Oracle Database VLDB and Partitioning Guide*.

FORCE with PARALLEL_DEGREE

When the `PARALLEL_DML` option in the `FSI-PARALLEL-PARAMETERS` table is set to `FORCE` and the `PARALLEL_DEGREE` parameter is set to a non-`NULL` integer value (4 in this example), the engine will begin each rule by issuing the following statement:

```
ALTER SESSION FORCE PARALLEL DML PARALLEL 4;
```

The subsequent behavior of Parallel DML is the same as where no specific Degree of Parallelism has been specified except that the database will employ the Degree of Parallelism you have set in your `PARALLEL_DEGREE` parameter instead of using the database's default Degree of Parallelism. Your `PARALLEL_DEGREE` parameter will override any Degree of Parallelism stemming from a `PARALLEL` clause associated with a table or index, but a Degree of Parallelism specified in a parallel hint will override your `PARALLEL_DEGREE` parameter setting.

Regardless of its value, the `PARALLEL_DEGREE` parameter is ignored when the `PARALLEL_QUERY` parameter is set to either `DISABLE` or `ENABLE`.

PARALLEL_DEGREE_POLICY

A new feature in Oracle 11gR2, `PARALLEL_DEGREE_POLICY` specifies whether or not automatic Degree of Parallelism, statement queuing, and in-memory parallel execution will be enabled. These 3 topics are covered in depth by the documentation resources found at the end of this appendix.

MANUAL

When the `PARALLEL_DEGREE_POLICY` option in the `FSI-PARALLEL-PARAMETERS` table is set to `MANUAL`, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION SET PARALLEL_DEGREE_POLICY = 'MANUAL';
```

The subsequent behavior of both Parallel Query & Parallel DML is the same as it would have been prior to Oracle 11gR2. SQL statements will only be processed in parallel for objects declared with a PARALLEL clause or if a parallel SQL hint is included. Additionally, the Profitability Management PARALLEL_QUERY parameter must be set to either ENABLE or FORCE (for Parallel Query) and the PARALLEL_DML parameter must be set to either ENABLE or FORCE (for Parallel DML).

LIMITED

When the PARALLEL_DEGREE_POLICY option in the FSI-PARALLEL-PARAMETERS table is set to LIMITED, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION SET PARALLEL_DEGREE_POLICY = 'LIMITED';
```

Under the LIMITED policy, automatic Degree of Parallelism is enabled for some statements but statement queuing and in-memory Parallel Execution are disabled. Automatic Degree of Parallelism is only applied to those statements that access tables or indexes decorated explicitly with the DEFAULT degree of parallelism using the PARALLEL clause. Statements executed against tables or indexes defined using an explicit Degree of Parallelism through the PARALLEL clause or statements including a parallel SQL hint may also run in parallel.

AUTO

When the PARALLEL_DEGREE_POLICY option in the FSI-PARALLEL-PARAMETERS table is set to AUTO, the engine will begin each rule by issuing the following statement:

```
ALTER SESSION SET PARALLEL_DEGREE_POLICY = 'AUTO';
```

Under the AUTO policy, the automatic Degree of Parallelism, statement queuing, and in-memory parallel execution features are all enabled. Under this policy, the Oracle database automatically decides if a statement should execute in parallel or not and what Degree of Parallelism it should use. The database also determines if the statement can be executed immediately or if it should be queued until more system resources are available. Finally, the database decides if the statement can take advantage of the aggregated cluster memory or not. For more details, see the documentation resources as follows.

Parallel Execution Documentation Resources

Oracle Database Parallel Execution Fundamentals: An Oracle White Paper – October 2010

<http://www.oracle.com/technetwork/articles/datawarehouse/twp-parallel-execution-fundamentals-133639.pdf>

Oracle® Database Data Warehousing Guide, 11g Release 1

Part Number B28313-02

http://download.oracle.com/docs/cd/B28359_01/server.111/b28313.pdf

See in particular:

- Enabling Parallel DML
- Space Considerations for Parallel DML
- Locks for Parallel DML
- Restrictions on Parallel DML

Oracle® Database New Features Guide, 11g Release 2

Part Number E10881-01

http://download.oracle.com/docs/cd/E11882_01/server.112/e17128.pdf

See in particular section In-Memory Parallel Execution

Oracle® Database VLDB and Partitioning Guide, 11g Release 2 (11.2)

Part Number E16541-08

http://download.oracle.com/docs/cd/E11882_01/server.112/e16541/toc.htm

See in particular: Chapter 8: Using Parallel Execution

Oracle® Database Performance Tuning Guide, 11g Release 2 (11.2)

Part Number E16638-04

http://download.oracle.com/docs/cd/E11882_01/server.112/e16638.pdf