Oracle Financial Services Data Foundation

User Guide

Release 8.0.7.0.0

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Document Control

VERSION NUMBER	REVISION DATE	CHANGE LOG
1.0	05-December-2018	• Updated chapter - GL to Management Reporting with the new hierarchy GL Rollup Signage for Mgmt Reporting. • Added the chapter - Key Business Data Use Cases • In chapter – Big Data in OFSDF, updated the list of supported and unsupported SCDs and T2Ts.
2.0	25-January-2019	• Modified the chapter ‘‘LRM Processing to FSDF Results Integration’’ to ‘LRS Pack Processing to FSDF Results Integration’ because LRS now consists of two application IDs and added new T2Ts: ▪ LRM_LRC ▪ LRM_DIC • Added new T2T for ▪ Forwards Transactions ▪ Shareholding Details • Added the parameter HIER_FDICEXEID for: ▪ FSDF_EXE_RUN.properties.template ▪ FSDF_SOURCED_RUN.properties.template

Table of Contents

1 Preface

This chapter explains these topics:

1. Intended Audience
2. Documentation Accessibility
3. Access to Oracle Support
4. Related Information Sources

1.1 Intended Audience

Welcome to Release 8.0.7.0.0 of the Oracle Financial Services Data Foundation User Guide.

This document is the user guide and reference guide for the Oracle Financial Services Data Foundation (OFSDF) application pack release 8.0.7.0.0. This document is intended for System Administrator and all other users who are instrumental in configuring and administering OFSDF with Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) platform.

See Related Information Sources for more Oracle product information.

1.2 Documentation Accessibility

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

1.3 Access to Oracle Support

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1.4 Related Information Sources

Refer to these documents on OHC Documentation Library:

- Technical Whitepaper on Data Model Document Generation (OHC)
- Oracle Financial Services Data Foundation Application Pack Installation Guide 8.0.7.0.0 (OHC)
- OFSAAI Installation Guide Release 8.0.7.0.0 (OHC)

2 Introduction to OFSDF

This chapter introduces you to Oracle Financial Services Data Foundation (OFSDF), its components, its relationship with Oracle Financial Services Analytical Applications Infrastructure (OFSAAI), and the key prerequisites to run OFSDF.

This chapter explains topics:

- Overview
- Components of OFSDF
- Relationship to Oracle Financial Services Analytical Applications
- OFSDF Prerequisite Components and Tools

2.1 Overview

Oracle Financial Services Data Foundation (OFSDF) is an analytical data warehouse platform for the Financial Services industry. OFSDF combines an industry data model for Financial Services along with a set of management and infrastructure tools that enables Financial Services institutions to develop, deploy, and operate analytical solutions covering key functional areas in Financial Services, including:

1. Enterprise Risk Management
2. Enterprise Performance Management
3. Customer Insight
4. Financial Crime and Compliance Management

OFSDF is a comprehensive data management platform that helps institutions to manage the analytical data life cycle from sourcing to reporting and business intelligence (BI) using a unified, consistent platform, and toolset..

2.2 Components of OFSDF

OFSDF consists of these components, which are described in additional detail in the following sections:

Table 1: Components

CRITERIA	DESCRIPTION
Financial Services Logical Data Model (FS LDM)	This is a reference model of the Financial Services domain that covers Banking and Capital Markets. This model captures the business processes of a typical Financial Services institution in detail. These business processes

CRITERIA	DESCRIPTION
	primarily include core banking business activities such as Retail Banking, Corporate or Merchant Banking, Wealth Management, Trading, and Securities Services. This is a logical data model, which means that it cannot be readily used. The structures modeled in the OFSDF LDM provide an abstract, graphical model of the Financial Services domain using Entity-Relationship modeling. Consider LDM as a detailed blueprint for organizing data within a Financial Services institution. It provides a reference guide for institutions to understand the salient data related to a specific business process. To use OFSDF, customers must deploy OFSDF Analytical Warehouse Model derived from LDM (blueprint).
Financial Services Analytical Warehouse Data Model	This is a physical data model that supports data sourcing and reporting related to key analytical use cases in the Financial Services industry. Analytical Warehouse Data Model or Warehouse Model is a physical data model, unlike OFSDF LDM. Warehouse Model is readily deployable. It consists of database object definitions, and additional supporting scripts. Warehouse Model is classified into two distinct sets of tables based on purpose: Staging Model: This model facilitates data sourcing from the internal operational systems of the banks such as Lending Systems, Trading Systems, Collateral Management Systems, and Master Data Management Systems. Reporting Model: This model facilitates the storage of outputs from analytical tools, applications, and engines in a manner that is conducive to BI reporting. The Warehouse Model is typically deployed into production through a set of management tools called the Oracle Financial Services Analytical Application Infrastructure (OFSAAI). AAI is a separate product, and is a prerequisite for OFSDF. For more information on AAI, see Infrastructure.
Supporting scripts	As part of the OFSDF package, there are additionally a number of scripts provided for basic operations such as internal data movement between the staging and reporting areas.

2.3 Relationship to Oracle Financial Services Analytical Applications

OFSDF is related to the Oracle Financial Services Analytical Applications (OFSAA) in the following ways:

1. Data Model

- OFSDF Staging Model provides the complete data sourcing foundation for OFSAA applications. All application-specific input data requirements are captured as part of the staging data model. 'OFSDF Staging Model' is a combination of all staging models supplied with each OFSAA application.
- OFSDF Reporting model provides the complete reporting data model common to all the OFSAA Business Intelligence (BI) applications. This includes a single set of conformed dimensions as well as unified fact tables used for cross-functional reporting. For more information, see OFSDF Reporting model. OFSDF reporting model is the superset of all the BI-application specific reporting models.
- Logical Data Model (LDM): The OFSDF Logical Data Model is independent of OFSAA analytical applications, and more aligned to the underlying business processes of a financial institution. However, there is significant content overlap in the lower-level details of the LDM entities/attributes. This is captured in the form of attribute level mappings between LDM entities/attributes and their corresponding equivalents in the OFSDF staging area data model. This mapping is made available as part of the OFSDF release packaging.
- Synchronized Releases: The Staging and Reporting models that are part of an OFSDF release are updated to reflect prior application-specific releases. This means that the latest release of OFSDF (8.0.7.0.0) reflects all prior application releases across OFSAA from a data model perspective, with respect to the Staging and Reporting models.

2. Infrastructure
   - The Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) is the same infrastructure that is used to deploy and manage an OFSDF instance.
   - The same collection of tools (OFSAAI) is used to manage a deployed instance of the Oracle Financial Services Data Foundation (OFSDF).

These are the tools used to manage the data lifecycle in OFSDF:

- Model Upload
- Unified Analytical Metadata (UAM)
- Data Quality Framework
- T2T framework

2.4 OFSDF Prerequisite Components and Tools

The key prerequisites for running the OFSDF are as listed as follows:

Table 2: Pre-requisites

COMPONENT	PROVIDER	PURPOSE

COMPONENT	PROVIDER	PURPOSE
Oracle Financial Services Analytical Applications Infrastructure version 8.0.7.0.0	Oracle	OFSAAI is the platform on which the OFSDF is deployed and operated. It represents the OFSDF 'runtime' environment, and consists of a number of tools used to manage the data lifecycle within OFSDF, from sourcing to reporting*.
Oracle Database Enterprise Edition 11gR2 and 12cR1	Oracle	OFSDF is certified on Oracle Database releases 11gR2 and higher.
ERwin data modeler version 9.5 and 9.64	Computer Associates (CA)	ERwin is a data modeling tool that provides a visual environment to manage the complex enterprise data environment.

NOTE OFSAAI, the infrastructure platform has its own prerequisites as well as supporting documentation.

3 Understanding OFSDF

This chapter explains the background of OFSDF, its functional architecture along with the differences from traditional warehouse architecture. OFSDF product package consists of the Logical Data Model and Analytical Data Warehouse model. The individual components of Physical and Logical Data Model, and Mapping Logical Data Model to OFSDF Staging Area are explained in detail.

This chapter covers the following topics:

- Background
- OFSDF Architecture
- Differences from Traditional Warehouse Architecture
- OFSDF Logical Data Model
- Staging Data Model
- OFSDF Logical Data Model
- Relationship to the OFSDF Physical Model
- OFSDF LDM Content Details
- Mapping from Logical Data Model to OFSDF Staging Area

3.1 Background

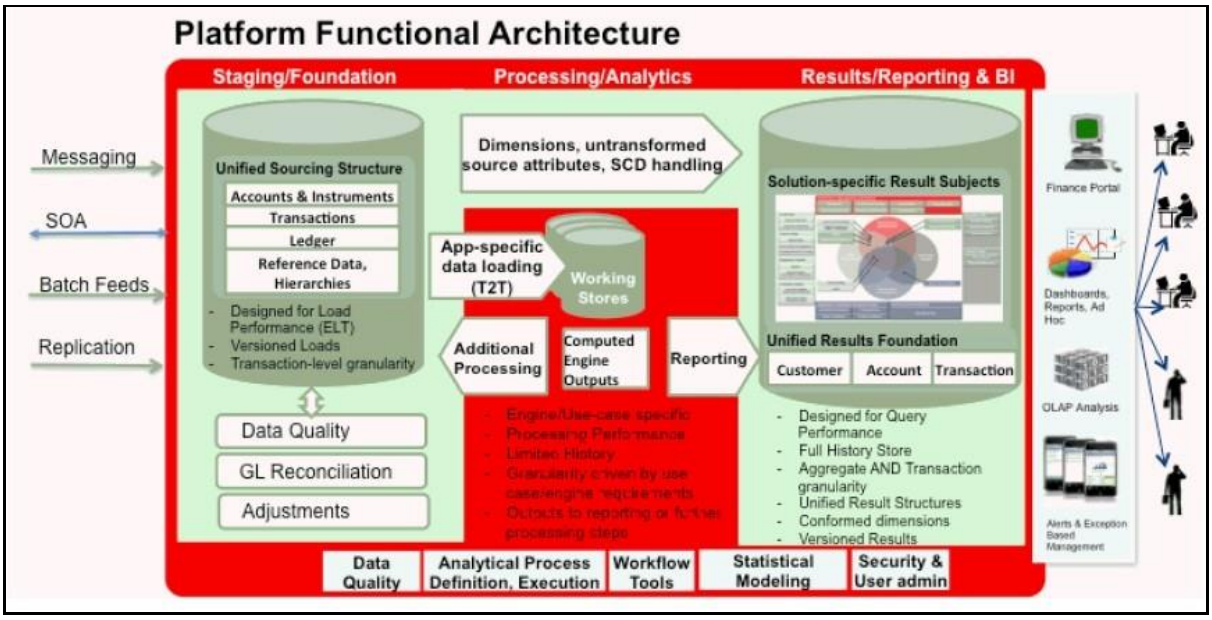
It is important to note that OFSDF architecture differs from 'traditional' data warehouse architecture in key ways.

OFSDF was built to specifically address the key challenges of building a scalable, practical data management platform to support Financial Services Analytics needs. The differences from traditional BI architecture are highlighted and explained in the following sections.

3.2 OFSDF Architecture

The following figure depicts the OFSDF Functional Architecture.

Figure 1: Architecture



The OFSDF architecture can be thought of as two distinct, interacting components. The dark green colored cylindrical portions denote the data repository and the red colored portion denotes the management toolkit.

1. A data repository whose physical structure is given by the OFSDF physical data model (Here Physical Data Model = OFSDF Staging + OFSDF Reporting). This user guide only details the structure and organization of the data repository that is covered by the data models in the OFSDF.
2. A management toolkit provided by OFSAAI that is used to manage the data repository, by providing a collection of tools and frameworks based on a common metadata foundation. This user guide DOES NOT cover the details of the Analytical Application Infrastructure, as that is a separate product with its own documentation..

The architecture illustrates the following key concepts:

1. A unified data-sourcing area for analytics: The OFSDF Staging Data Model provides the basis for central, unified data-sourcing layer for a wide variety of analytical needs. The staging layer faces the operational (OLTP) and front office systems of a bank. It consists of tables to capture key business and operational data from these systems, which is then processed by one or more analytical engines.
2. A unified reporting/consumption layer: Analytical results can be simple to complex, quantitative and qualitative measures of a bank's Risk, Compliance, Customer and Financial Performance. The OFSDF Reporting data model is a dimensional data model spanning these key analytical functions. It forms the foundation of OFSAA Business Intelligence applications, but can clearly be used as the result data store for any equivalent engines and processes provided by other vendors, or custom-built solutions. By providing a single data repository for reporting needs, this layer provides a foundation for departmental as well as cross-departmental and cross-functional reporting.

   Additionally, the schema of the reporting area is specifically built for Financial Services analytics. As an illustration, the reporting area has a 'Run dimension' that is shared across all BI/reporting use cases. Similarly, the aggregation of shared measures/reporting into a common set of output

structures (Account Summary) allows for cross-functional reporting, which is increasingly the norm in Financial Institutions.

3. Single point of control and operation: The Oracle Financial Services Analytical Applications Infrastructure is a separate Oracle product that offers a set of tools that are built on a common metadata foundation. These tools are used to control and manage the lifecycle of data from sourcing to reporting. There is a collection of frameworks to manage the following lifecycle steps of data within OFSDF:
   - Metadata Management
   - Data Quality
   - Data Movement
   - Scheduling and runtime operations
   - Security/User management
   - Analytical Process Definition and Execution
4. Processing Area: As explained earlier, the primary purpose of the OFSDF is to serve as a container for analytical processing from sourcing to consumption. Such processing is usually delivered in the form of discrete units called analytical applications spanning different analytical use cases ranging from Finance to Risk to Compliance.

These applications consist of custom-built computational engines and numerical libraries, and may execute processes on the data that range from simple aggregations to complex, multi-step stochastic processes such as Monte-Carlo simulation.

Hence, analytical applications place varying demands on the data infrastructure in terms of volumes and speed, and hence place different demands on data architecture. In practice, the normalized (3NF) design favored for Enterprise Data Warehouses often fails to be efficient or performant when it comes to analytical processing across a wide range of use cases.

Therefore, the OFSDF recognizes the need for distinct application-specific working stores, separate from the staging and reporting area. For example, the OFSAA Asset/Liability Management application (ALM) has a distinct set of ALM-specific tables, as does the Market Risk solution.

NOTE The structure of these processing area stores is decided by the actual analytical application and engine used. The OFSAA suite of applications is organized this way, with each application managing a specific set of tables/schemas within the processing area.

The processing area tables/schemas are NOT part of the OFSDF. This is because the OFSDF is intended to be an open platform. Other analytical applications and engines can equally provision data out of OFSDF by mapping their input requirements appropriately to the OFSDF staging area model.

3.3 Differences from Traditional Warehouse Architecture

This table summarizes the differences of the OFSDF from a traditional Data Warehouse architecture.

Table 3: Differences of the OFSDF

COMPONENT	FSDF	TRADITIONAL BI ARCHITECTURE
Staging Layer	Common staging Area (CSA) where data from source systems are staged and is implemented as database schema.	Usually a filesystem-based area where file-based extracts (operational images) from source systems are staged prior to loading into a target schema.
3rd Normal Form Operational Data Store/Enterprise Data Warehouse	Does not provide a physicalized model for a 3NF store. The FS LDM can be physicalized as a 3NF store if desired. Operational/fine-grained reporting will be fulfilled from the reporting area.	Notification sent to all users captured as owners and user who submitted the definition.
Data Marts/Reporting Model	Set of star schemas with conformed dimensions (Ralph Kimball approach)	Set of star schemas

With the preceding understanding in mind, the following sections describe the data models in the OFSDF in greater detail.

1. Readily Deployable: The Physical Data Model is a readily deployable physical schema. It is provided as an ERwin data model file (for details on ERwin, see http://erwin.com/products/modeler/) and consists of tables grouped into distinct subject areas depending on function. The tables are either used to gather source data (Staging Area), or as containers of outputs/results from analytical processing and engines for reporting purposes (Reporting Area).
2. Use-case Driven: The OFSDF Physical Data model is driven by a set of clearly identified analytical use cases spanning Risk, Performance, Customer Insight, and Compliance.
3. Extensible: While the OFSDF Physical Data Model satisfies a very large number of analytical use cases across Risk, Finance, Marketing, and Compliance subject areas, customers may find the need to customize the model for a specific installation.

These customizations may be done in accordance with guidelines published in Using OFSDF section of this manual.

The OFSDF Physical Data Model is divided into two primary areas:

3.4 Staging Data Model

3.4.1 Overview/Design

The Common Staging Area Model (CSA) represents the point of entry of data into the OFSDF. The CSA provides a simplified, unified data sourcing area for inputs required by analytical applications and engines. It consists of over 900 tables and nearly 9000 columns organized into distinct subjects. The salient features of the CSA are as follows:

1. Mapping to Analytical Use Cases: Since the primary purpose of the OFSDF is to be a data repository supporting analytics, each database object in the OFSDF physical data model is necessarily mapped to a corresponding analytical use case.

   These mappings are captured in the data model, in the form of additional metadata called User-defined Properties (UDPs), and can be leveraged to reduce the scope of data gathering efforts by focusing on clearly-defined end use cases such as Basel II, Market Risk Analytics, ALM and others.

   These mappings can readily be extracted into a Download Specification, which lists the data demands for a specific analytical use case. An example is shown below:

Figure 2: Download Specification

COLUMN DOMAIN	TABLE NAME	COLUMN NAME	COLUMN DESCRIPTION	COLUMN DATATYPE	LRM	FTP	PFT	BASEL_II_USA_SEC	CIRCA	MRMM	ICAAP
Code_Alphanumeric_Short_T	Stg_Accounting_Head	v_account_head_identifie	A unique identifier for a Income Accou	VARCHAR2(6)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
DATE	Stg_Accounting_Head	fic_mis_date	This column stores the date as on which the snapshot of source data extracted for processing.	DATE	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Long	Stg_Accounting_Head	v_branch_code	The code of the branch to which the ac	VARCHAR2(20)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Long	Stg_Accounting_Head	v_leg_rep_code	Stores the code of the Booking Transit which is the lowest level in the Legal Reporting Hierarchy.	VARCHAR2(20)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Long	Stg_Accounting_Head	v_lob_code	Line of business (LOB) is a functional u	VARCHAR2(20)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Amount	Stg_Accounting_Head	n_account_head_amt	The amount corresponding to this Inco	NUMBER(22,3)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Long	Stg_Accounting_Head	v_gl_code	This column stores the code of the GL account that stores the customer accounts balance. Dim_Gl_Account is the equivalent dimension table for this column.	VARCHAR2(20)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
DATE	Stg_Accounting_Head	fic_mis_date	This column stores the date as on which the snapshot of source data extracted for processing.	DATE	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Text_Medium_Description	Stg_Accounting_Head	v_gl_account_head_descr	The description of general ledger acco	VARCHAR2(60)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Short_T	Stg_Accounting_Head	v_gl_account_head_type	Identifies the GL head type	VARCHAR2(6)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Code_Alphanumeric_Long_Ty	Stg_Account_Cash_Flo	v_account_number	This column stores the unique identifi	VARCHAR2(50)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
DATE	Stg_Account_Cash_Flo	fic_mis_date	This column stores the date as on which the snapshot of source data extracted for processing.	DATE	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO
Number_Short	Stg_Account_Cash_Flo	n_cash_flow_sequence	Numeric value indicating the location	NUMBER(5)	DL-NO	DL-NO	DL-NO	DL-NO	DL-NO	NO	DL-NO

   The Mappings can be generated from the OFSDF ERwin file using ERwin Data modeling tools.

2. Schema Design: The data model of the Common Staging Area is designed to facilitate loading efficiency. This means that it is denormalized.

   The primary focus of the staging area is to efficiently deliver data from operational systems such as Core Banking, Trading and Wealth Management to multiple analytical applications that process this data.

Typically, this data is extracted from source systems and loaded into OFSDF directly, or alternatively into a pre-defined file-based operational image area from which it is subsequently loaded into the OFSDF schema. In a large bank, it is not unusual to have 10s to 100s of millions of accounts and transactions.

Standard ETL (Extract, Transform, Load) approaches can fail to address this requirement adequately because of the complexity imposed by the target schema. If the target schema is increasingly normalized, then the ETL into this schema is correspondingly more complex, requiring careful load ordering to prevent integrity-related load failures, as well as integrity validation prior to loading. Such complex ETL processing is time-consuming and is prone to failure.

To address this, the CSA is designed to support a simplified loading process. De-normalized tables allow efficient data loading, and subsequent transformations can be done to verify data integrity through a series of data quality checks. This represents an 'ELT (Extract Load Transform)' approach to data sourcing, which is far more suited for an analytical data repository.

3. Application-managed Referential Integrity (RI): In conjunction with the database design of the staging schema, a key feature is the management of Referential Integrity primarily in the application tier, rather than within the database. Rather than imposing foreign key relationships in the database, which could cause complex loading order dependencies, relationships between staging tables are managed by the Data Quality (DQ) framework, a toolkit within the Analytical Application Infrastructure that captures the relevant data quality checks for a specific table in the staging model. These checks include:
   - Value checks (Nulls, Value ranges, business checks on numeric fields)
   - Referential Integrity checks (which are otherwise implemented as foreign key constraints)

> **ATTENTION** This is also why the ER model of the staging area in ERwin does not contain any relationships – the staging area is a physical data model, which is deployed using the Analytical Application Infrastructure, which manages it.

In summary – the design of the staging area data model is to allow efficient data loading for analytics. It thus has crucial differences from a general-purpose repository of operational/transactional data across a bank.

3.4.2 Details of the Staging Data Model

The CSA model consists of over 900 tables and nearly 9000 attributes. These tables are organized into multiple 'subjects', currently by analytical use case/solution need.

However, it makes sense to first understand the staging area tables in terms of content before understanding how they map to analytical use cases.

There are two broad categories of staging data, regardless of the use case or analytical application that requires it:

1. Business Data: This set of tables captures the actual business events and the resulting state of a bank from those business events. The OLTP systems (or Transactional Systems) capture this information resulting from the execution of the bank's different business processes. Broadly, this information can be categorized as:
    - Events: Business transactions, whether financial or non-financial, represent business happenings (events) that are relevant for analytical purposes. For example – a financial transaction by a customer on a current account is a specific event. Events happen at a specific point in time, and are recorded by OLTP systems. In the staging area model, there are several transaction tables that capture this detail – for both financial and non-financial transactions.
    - State: The net effect of business transactions is to change the bank's overall financial/non-financial state. An example of this – when a customer opens a checking/current account and deposits money into it, the account tracks the net effect of all withdrawals and deposits using a numeric quantity called a 'balance'. The account will also contain a list of all events (Withdrawals, deposits, fees, etc) that resulted in the balance. This state information is typically captured by product-specific systems in a bank or FSI. For example, there is a lending system that captures details of loans, and a current account system that captures details of checking and savings accounts, which are distinct products. In both cases, the accounts are governed by contracts, which refer to the terms and conditions governing business on that account.
2. Reference/Master Data: Events and state refer to 'business activities' of a bank or FSI. To provide more detail on these, banks need to capture additional data that provides context for these activities. This data may be variously called as 'reference data' or 'master data', and covers various business dimensions of a giventransaction or account. For example – a bank has a master list of products that it sells to customers (Product Master). Similarly, it has a list of customers (Customer master). A trading firm may hold a list of securities it transacts in (Securities master). These and other lists provide context for each business transaction or account. Banks typically maintain 'Master' data for this purpose.

With this background, the following lists the key categories of business data and reference data in the staging data model.

3.4.2.1 Business Data

To view the current set of business data tables in the staging area, open the OFSDF Staging Area model in the ERwin data modeling tool, and click on subject areas as shown below. Right click and switch to the 'Staging-Data Tables' subject area.

Figure 3: 'Staging-Data Tables' Subject Area

This provides an ordered, visually grouped list of the business data tables in the current staging area model. Above each group in the diagram is the group name as a label, to categorize the tables, as follows:

Figure 4: Business Data Tables

The key groups of business data tables in the model are as follows.

Table 4: Key Groups

GROUP NAME	PURPOSE
Product Processors	Tables for Financial Instruments and Contracts. Note that these tables can accommodate nearly 80+ types of instruments and derivatives across Banking and Trading books.
Transactions	Tables to hold Transaction/Event level data from the bank's systems. These tables are available by both con- tract and channel, and there is additionally

GROUP NAME	PURPOSE
	a set of Transaction Summary tables that contain transaction data in a summarized form required by the Profitability application.
Exposures	Exposures are basically contracts on the asset side of the balance sheet. The tables in this category are primarily used by Risk applications.
Mitigants	Mitigants are used to address specific types of risk posed by exposures. The tables in this category are primarily used by Risk applications.
GL	Contains tables holding information pertaining to the General Ledger.
Customer	Consists of Marketing-related Customer activity and plan data relevant to CRM analytics. Note that core customer information is in the Product Processors, and reference data about customers is elsewhere.
Rates	Economic indicators, Interest Rates and other information relevant to analytical processing for Risk and Asset Liability Management applications.

3.4.2.2 Product Processors

Product Processors are classified into four categories as depicted in the following table:

PRODUCT CATEGORY	ENTITY NAME
Asset	Payment Settlement Account Stage Cards Stage Correspondent Accounts Stage Foreign Exchange Contracts Stage Investments Stage Leases Contracts Stage Loan Contracts Stage Managed Investment Account Other Services Stage Merchant Banking Stage Money Market Contracts Stage Over Draft Accounts Stage Repo Contracts Stage Credit Facility Details
Liabilities	Payment Settlement Account Stage Annuity Contracts Stage Borrowings Stage Casa Accounts Stage Correspondent Accounts Stage Custodial Accounts Stage Foreign Exchange Contracts Stage Merchant Cards Stage Money Market Contracts Stage Mutual Funds Stage Prepaid Cards Stage Repo Contracts Stage Retirement Accounts Stage Term Deposit Contracts Stage Trading

PRODUCT CATEGORY	ENTITY NAME
	Account Stage Trusts
Off Balance Sheet	Stage Bill Contracts Stage Borrowing Commitment Contract Stage Commitment Contracts Stage Credit Derivatives Stage Futures Contract Stage Guarantees Stage Letter Of Credit Contracts Stage Option Contracts Stage Repo Contracts Stage Swaps Contracts Stage Forwards Contract
Derivatives	Stage Credit Derivatives Stage Futures Contract Stage Option Contracts Stage Swaps Contracts Stage Forwards Contract

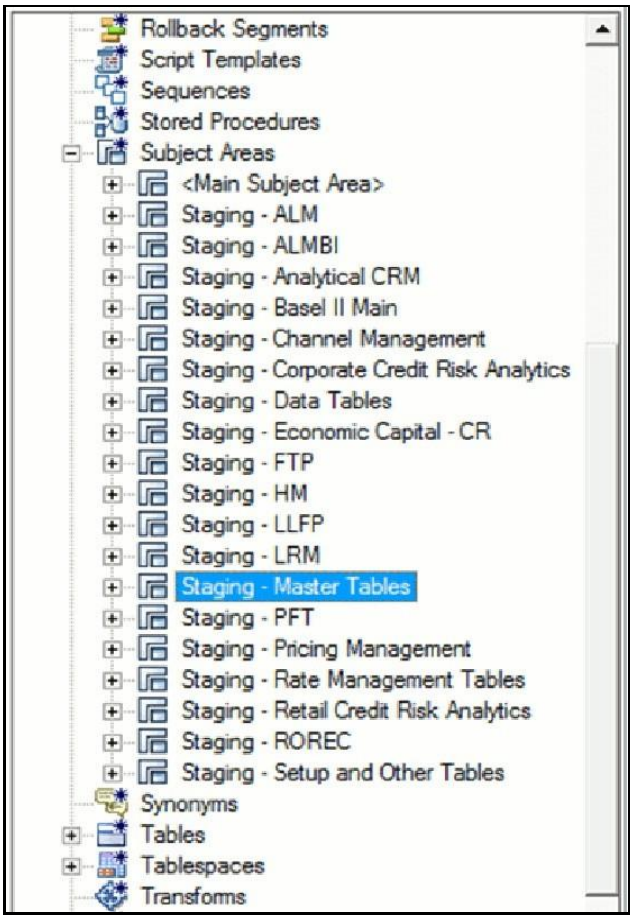
For detailed mapping information, see Banking Product to Product Processor Mapping document at My Oracle Support. This document provides details regarding which banking product must be sourced to which Product Processor table based on the product functionality

3.4.2.3 Reference/Master Data

To view the current set of Master/Reference data tables in the staging area, open the OFSDF Staging Area model in the ERwin data modeling tool, and open up the subject areas menu on the left hand side, as shown below.

Right click and switch to the 'Staging-Master Tables' diagram to get the list of the master tables currently in staging.

Table 5: Staging Master Tables



Similar to the Business Data tables, the 'Staging - Master Tables' subject area provides a single folder view of all of the reference/master information currently required by the staging area.

3.5 Reporting Data Model

3.5.1 Overview

The Reporting Data Model is the point where outputs of analytical processing are aggregated for reporting and Business Intelligence (BI) tools.

Similar to the Common Staging Area being the foundation for data provisioning to analytical applications, engines and processes, the Reporting Data Model is the common data store for the outputs of these processes. Outputs are computed quantitative measures and Key Performance Indicators that involve simple to complex, mathematical and statistical processing using the raw data, which is performed by specialized engines and computational models. In the OFSDF design, the Reporting Data Model design ensures that the historical data is maintained.

The key features of the design of the Reporting Area model are as follows:

1. Design:

The Reporting Area data model is a dimensional data model. This means that it consists primarily of central fact tables (de-normalized), related to multiple dimension tables, also called a Star Schema. Additionally, the dimension tables are shared across the star schemas in the reporting mode, meaning they are Conformed Dimensions. This means that Drill-across reporting is naturally supported by the OFSDF design.

Additionally – in keeping with the key principle of the OFSDF, the Reporting Model is organized by use cases to facilitate reporting and BI in a wide variety of areas.

2. Support for multiple scenarios of analysis:

   Increasingly as a result of the 2008 crisis, the Financial Services industry is moving towards scenario-based, forward-looking risk analysis instead of retroactive analysis. The reporting data model has been designed to support scenario analysis of the sort required by financial institutions that need to measure and report risk and performance under a variety of economic scenarios.

   To facilitate this, the Oracle Financial Services Advanced Analytical Infrastructure (OFSAAI) provides a Stress Testing framework, allowing risk analysis to be performed under a variety of known scenarios corresponding to different input parameter values to risk models.

   The reporting model provides support for this kind of analysis via a Run Dimension – it allows analytical engines to load multiple result sets identified by scenarios, and hence permits reporting related to baseline and stress conditions in economic terms.

3. Support for Cross Functional Reporting:

   The third critical feature of the Reporting area design is the support for cross-functional reporting.

   Typically, Business Intelligence and Reporting Solutions work off a dedicated, purpose-specific data store called a data mart. Data marts are function-specific data stores typically star schemas (eg. Marketing data marts, Risk Data Marts, Customer Data mart), that provide the necessary reporting and analytics relevant to a particular business function in the FSI.

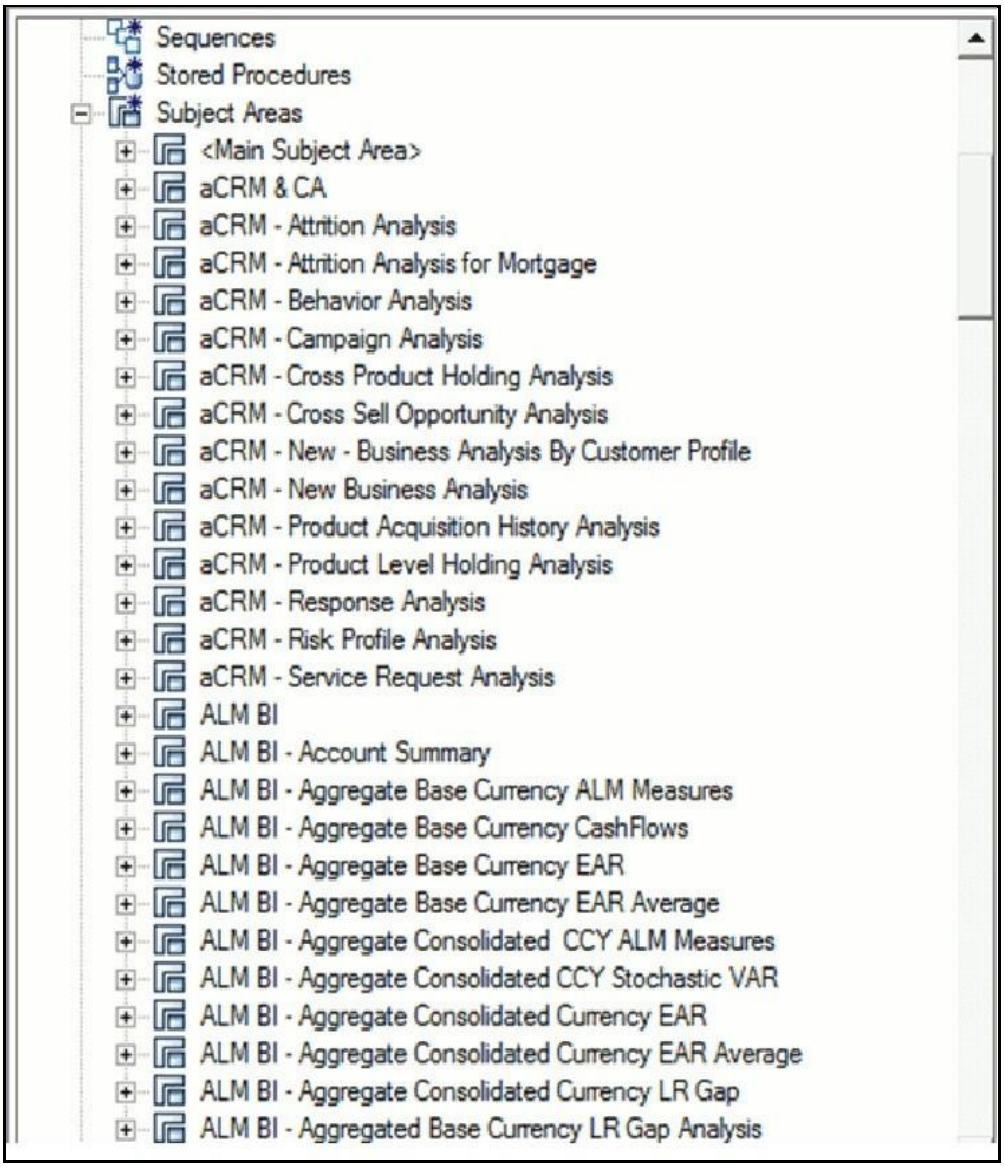
   Increasingly, the trend is for cross-functional analytics and reporting. Majority of emerging needs relate to the analytical problems at the intersection of the distinct areas of Risk, Performance, Customer Insight, and Compliance.

3.5.2 Reporting Area Details

Similar to the staging data model, the reporting model is divided into Subject Areas.

These subject areas are visible by clicking on the Subject Areas view in the ERwin data modeling tool as show below.

Figure 5: Subject Areas



As can be seen above, the Subject Areas are organized to support detailed level analysis related to a set higher-level analytical reporting solutions. The list of solutions supported by the OFSDF are:

Table 6: List of Solution Supported by OFSDF

NAME	DEFINITION
ALM	Subject Areas corresponding to Asset Liability Management (ALM).
Basel II, Pillar I and III, Pillar II	Subject Areas corresponding to the Basel II Regulatory framework, and its reporting requirements as specified in the framework.
Capital Planning	These Subject areas provide support for reporting related to Capital

NAME	DEFINITION
	Planning
Channel Management	Support for analytics related to Channel Management, which is part of the overall Customer Insight solution set
Common Account Summary	A critical subject area that collects account-level results from multiple analytical processes. The Common Account Summary allows for cross-functional Analytics such as Risk Adjusted Performance Measurement by combining outputs from Profitability and Risk solutions
Corporate Credit Risk Analytics	Support for detailed analytics and reporting on Corporate Credit Risk - including Commercial Lending, Credit Facilities, Limits and Collateral
Economic Capital	Support for Aggregated Economic Capital Reporting based on risk assessments for Market, Credit and Operational Risk.
GL Reconciliation	Support for reporting specific to the Oracle GL reconciliation module that is part of the OFSAA product line. This allows a reporting view of the reconciliation processes and outputs
ICAAP	Supports reporting related to the Internal Capital Adequacy Assessment process.
LRM	Supports reporting related to Liquidity Risk Management processes within an organization
CRM	Part of the Corporate Credit Risk Solution, allows reporting on Credit Limits.
CI	Part of the Customer Insight solution set providing support for Retail, Institutional, and Channel Analytics.
Market Risk	Support for Market Risk analytics
PFT BI	Supports reporting related to Profitability analysis, part of the Enterprise Performance Management solution area.
Reputational Risk	Support for Reputational Risk measurement and analysis
Retail Credit Risk	The set of tables/subject areas supporting Retail Credit Risk Analysis.

Table 7: List of Solution Supported by OFSDF

NAME	DEFINITION

NAME	DEFINITION
Retail Pooling	Reporting support for Pooling for Retail Exposures – required by ALM and Retail Credit Risk analysis.
Strategic Risk	Support for reporting related to Strategic Risk – measurement of these risks is a qualitative process, and part of the ICAAP framework.

Within the above higher-level areas, there are over 165 subject areas consisting of star schemas supporting detailed analysis. Each Subject Area typically corresponds to one or possibly more star schemas, depending on the reporting need. There are currently 500+fact and dimension tables in the reporting area. The details of the various naming conventions used in OFSDF Data Model are explained in Appendix A. For column-level details, see the Technical Whitepaper on Data Model Document Generation, which details how to extract the data dictionary from ERwin section.

3.6 OFSDF Logical Data Model

The previous sections have discussed the components of the OFSDF Physical Data Model (or the OFSDF Analytical Warehouse model) – this is the actual deployable physical database model that addresses a number of analytical needs out of the box, as illustrated earlier.

The Logical Data Model is a reference data model of the Financial Services Domain, which captures the data created by the key business processes in Financial Services. A reference data model is different from the Physical Data Model in these ways:

Table 8: Difference between Reference Data Model and Physical Data Model

AREA	FS LDM	OFSDF PHYSICAL MODEL
Purpose	Generic blueprint of the data roduced by the business processes of a Financial Services institution	Designed for analytical processing (Risk, Profitability, Customer Insight)
For- mat/Struc ture	Entity Relationship Diagrams organized into key Top Level subject areas	Physical Tables/Columns Definitions
Usage	Cannot be directly used – needs to be used within a physical database design step to arrive at a database schema	Readily deployable
Scope	All the key business processes/activities and their	The business and reference data required for a set of analytical use

AREA	FS LDM	OFSDF PHYSICAL MODEL
	supporting reference data requirements	cases. However, can be extended to serve other needs.

3.7 Relationship to the OFSDF Physical Model

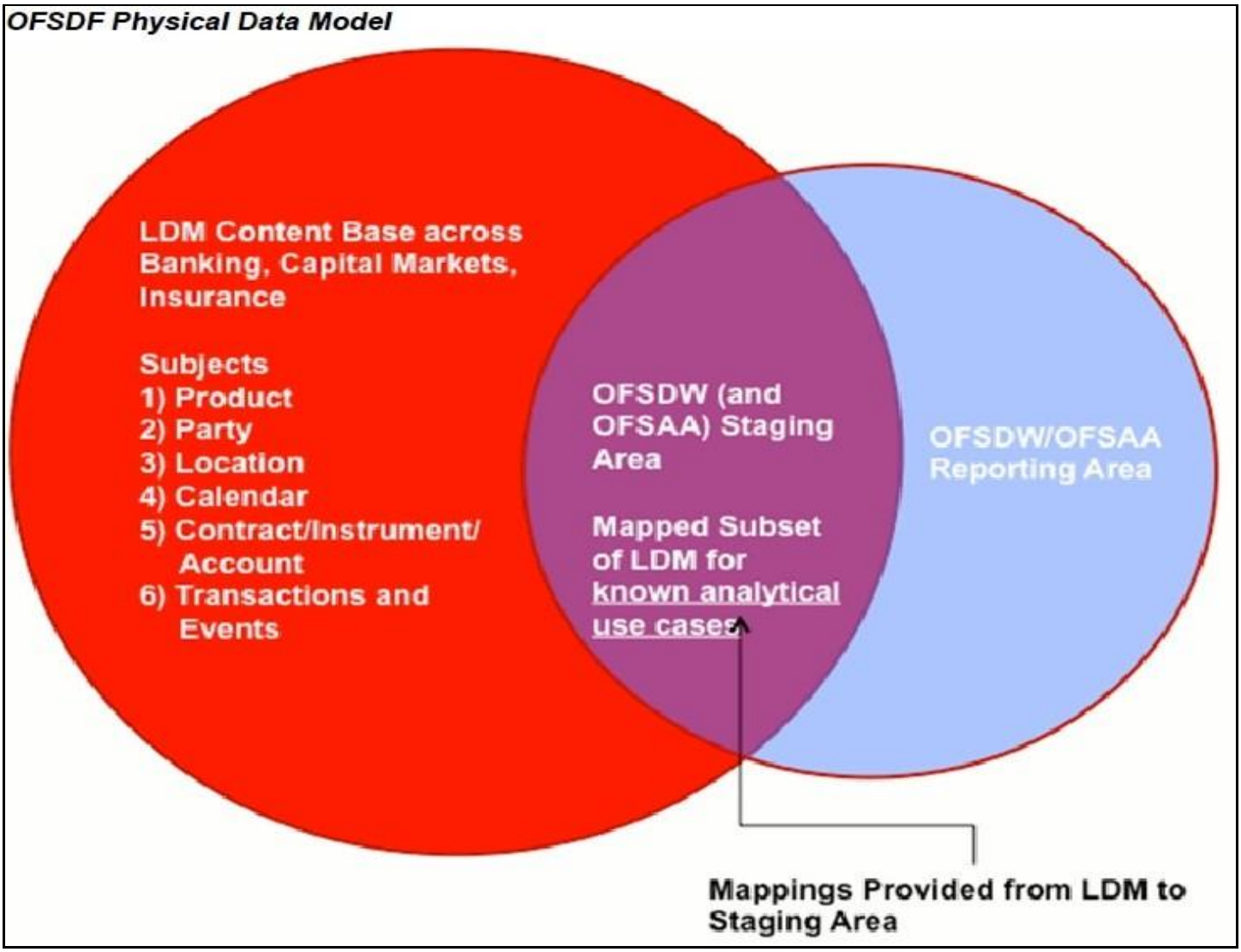
The coverage of the OFS LDM in terms of core business processes is as follows.

Table 9: Coverage of OFS LDM

BUSINESS AREA	COMMENTS
Retail Banking	End to end content support for Retail Assets and Liabilities – Retail lending across a variety of loan products, Current Accounts, and Term Deposits.
Corporate Banking	End to end process support for Commercial Assets and liabilities – Corporate/Commercial lending operations, Structured Lending, Collateral and Limits models, and Trade Finance.
Capital Markets, Trading and Securities	Process support for the trade lifecycle from quoting to settlement/clearance. Coverage of a wide variety of security and derivative asset classes.
Insurance	Preliminary coverage of Insurance liabilities in the non P & C insurance domains.

The OFSDF physical data model should be seen as a deployable, physicalized subset of this reference data model for known analytical use cases spanning Risk, Performance, Customer Insight, and Compliance, as illustrated below.

Figure 6: OFSDF Physical Data Model



3.7.1 OFSDF LDM Content Details

The OFS LDM is organized into a small set of high-level subject areas, each of which represents a key category of data that is produced by the business processes in a bank.

Table 10: Subject Areas and their definitions

SUBJECT AREA NAME	SUBJECT AREA DEFINITION
Accounting	This subject area deals with the structure of the internal accounting of a financial institution, which includes budget , GL & GL mapping to budgets.
Application	This subject area covers various aspects of application across different products. The section helps to analyze potentially risky customers and performance of different sourcing channels.

SUBJECT AREA NAME	SUBJECT AREA DEFINITION
Calendar	This subject area deals with entities that contain the details for Calendar & Fiscal Date, Month, Quarter, Half year & Year.
Campaign	This subject area provides the information on the campaigns, which are organized by the financial institutions. It covers the details of the campaign treatment, offers given on a campaign, response & delivery status and so on, which helps in analyzing the profitability of a campaign.
Channel	This subject area caters to all the variety of channels, which are involved in the functioning of financial institution in terms of advertisement or collecting response or sending message, or so on.
Claim	This subject area covers the details of claims originated from insurance contracts. It also captures the various claim events, the settlement history & the claim recovery process.
Collateral	This subject area records the details of various physical & financial collateral and also helps in analyzing the quality of the each collateral.
Collections and Recovery	This section captures performance of collection & recovery activities. The section helps ascertain the amount and quality of the collections and the recovery that was made using the secondary means of collecting money (by selling collaterals, and so on).
Common	This subject area covers the entities that are common across subject areas like currency, data origin, and so on.
Contract	This subject area captures contract & account details of vari- ous banking & insurance products, which includes Loans, Cards, CASA, TD, Collection, Insurance, Merchant Card, Overdraft, Commitment, Prepaid Cards, Reinsurance, and so on.
Coverage	This subject area deals with the presentation of the Insurance policy that defines and limits the provisions and obligations under an Insurance Policy. Components of the coverage are the provisions, benefits, options, terms and condition spe- cific to offered insurance to an insured party.
Geography	This subject area deals with entities that contain the physical address of the party and offices where they are located or contacted.
Instrument	This subject area captures the details of various instrument financial organization deals with like Certificate of deposit, common stock, derivatives, equity, fixed income securities, repo, and so on

SUBJECT AREA NAME	SUBJECT AREA DEFINITION
Limit	This subject area defines the generic limit, which can be asso- ciated with an account access restriction, acceptance toler- ance on amount difference, age of contribution, approval workflow, number of transactions allowed, lending and credit.
Market	This subject area identifies entities that are of importance with respect to capturing data feed from Order Management and Order Execution systems along with the entities that are involved in the clearing and settlement processes.
Organization	This subject area deals with entities that can perform one or many business functions and it is a unit of a financial institu- tion that can be consolidated in both a managerial and legal hierarchy.
Party	This subject area deals with the entities, which can interact with the Financial Organization for any kind of busi- ness/non-business activity and on the same lines the entities with which the bank interacts with. It also includes Bank as a whole and various internal units of the bank mutually involved in certain set of transactions. Party in different con- texts can play different roles i.e. Customer for a particular contract and a Vendor in some business relationship (servic- ing the bank).
Product	This subject area deals with entities which stores the features & details of the products, which are offered by the financial institutions.
Reinsurance	This subject area covers the details of reinsurance contract, which is a contract between reinsurer & an insurer.
Securitization	This subject area covers the details & the complete process of securitization, it also covers on mortgage servicing rights.
Trade	This subject area covers the details of order management, trade execution & trade settlement which helps in analyzing the trade life cycle.
Transaction	This subject area deals with entities and relationships that capture any kind of activity (financial or non-financial) including those on an account or between accounts.

Within the above subject areas, the FS LDM has 800+ entities. The various naming conventions used in OFSDF Logical Data Model are explained in Appendix A. For column-level details, see the Technical Whitepaper on Data Model Document Generation, which details how to extract the data dictionary from erwin section.

3.8 Mapping from Logical Data Model to OFSDF Staging Area

In addition to the data dictionary and download specifications, the OFSDF also provides a mapping between the relevant columns in the OFSDF physical staging area model and the OFSDF Logical Data Model. These mappings are currently made available as Excel spreadsheets, and part of the OFSDF package.

Following are the links to the excel spreadsheets. Click the corresponding spreadsheet link that you want to view.

- LDM_Staging_mapping_Accounting
- LDM_Staging_mapping_Application
- LDM_Staging_mapping_Campaign
- LDM_Staging_mapping_Campaign_7.3
- LDM_Staging_mapping_Claim
- LDM_Staging_mapping_Collateral
- LDM_Staging_mapping_Collections and Recovery
- LDM_Staging_mapping_Contract
- LDM_Staging_mapping_Credit_Card_7.3
- LDM_Staging_mapping_Geography
- LDM_Staging_mapping_Instrument
- LDM_Staging_mapping_Organization
- LDM_Staging_mapping_Party
- LDM_Staging_mapping_Product
- LDM_Staging_mapping_Transaction

NOTE Column description updated as ‘deprecated’ would be dropped from the model in the next major release.

4 Dimension Loading Process

This chapter provides information about Dimension Loading Process in the Oracle Financial Services Data Foundation application.

This chapter includes the following topics:

- Dimension Table Population
- Overview of SCD Process
- Prerequisites
- Tables Used by the SCD Component
- Executing the SCD Component
- Checking the Execution Status

4.1 Dimension Table Population

Dimension Tables in Data Foundation Solutions are of two types:

- Seeded Dimensions
- SCD Dimensions

Data Foundation solutions use the SCD component to handle dimensional data changes.

4.2 Overview of Seeded Dimensions

The Seeded Dimensions are those Dimension tables which are pre-populated with data (which are standard and OFSAA specific codes). The Banks are supposed to refer these dimension tables and its values to configure the ETL Layer of Staging area wherever there is a corresponding reference.

4.3 Overview of SCD Process

A Slowly Changing Dimension (SCD) is a dimension that stores and manages both current and historical data over time in a data warehouse. SCDs are dimensions that have data that changes slowly, rather than changing on a time-based, regular schedule. It is considered and implemented as one of the most critical ETL tasks in tracking the history of dimension records. There are three types of SCDs and you can use Warehouse Builder to define, deploy, and load all three types of SCDs.

4.3.1 Type 1 SCDs - Overwriting

The Type 1 methodology overwrites old data with new data, and therefore does not track historical data. This is useful for making changes to dimension data.

Example:

In this example, N_PRODUCT_SKEY is the surrogate key column which is a unique key for each record in the dimension table. V_PRODUCT_NAME is the product name. D_START_DATE indicates the date from which this product record is valid.

Table 11: Type 1 SCD Methodology Example

N_PRODUCT_SKEY	V_PRODUCT_NAME	D_START_DATE	D_END_DATE	F_LATEST_RECORD_INDICATOR
1	PL	5/31/2010	12/31/9999	Y

D_END_DATE indicates the date till which this product record is valid.

F_LATEST_RECORD_INDICATOR with value 'Y', which indicates this is the latest record in the dimension table for this product and 'N' indicates it is not. If the V_PRODUCT_NAME column is set as a Type 1 SCD column and if there is a change in the product name to 'Personal Loan' from 'PL' in the above example, in the next processing period, then when SCD is executed for the new processing period the record in the above example changes to:

Table 12: Record Change Example

N_PRODUCT_SK EY	V_PRODUCT_NAME	D_START_DATE	D_END_DATE	F_LATEST_RECORD_INDICATOR
1	Personal Loan	6/30/2010	12/31/9999	Y

4.3.2 Type 2 SCDs - Creating another dimension record

The Type 2 method tracks historical data by creating multiple records for a given natural key in the dimensional tables with separate surrogate keys. With Type 2, the historical changes in dimensional data are preserved. In the above example for the change in product name from 'PL' to 'Personal Loan' if history has to be preserved, then the V_PRODUCT_NAME column has to be set as Type 2 when SCD is processed for the processing period and the change inserts a new record as shown in the following example:

Table 13: Type 2 SCD Methodology Example

N_PRODUCT_SK EY	V_PRODUCT_NAME	D_START_DATE	D_END_DAT E	F_LATEST_RECORD_ INDICATOR
1	PL	5/31/2010	12/31/9999	N
2	Personal Loan	6/30/2010	12/31/9999	Y

A new record is inserted to the product dimension table with the new product name. The latest record indicator for this is set as 'Y', indicating this is the latest record for the personal loan product. The same flag for the earlier record was set to 'N'.

4.3.3 Type 3 SCDs - Creating a current value field

A Type 3 SCD stores two versions of values for certain selected level attributes. Each record stores the previous value and the current value of the selected attribute.

When the value of any of the selected attributes changes, the current value is stored as the old value and the new value becomes the current value.

For more information on SCDs, see:

- Oracle Data Integrator Best Practices for a Data Warehouse at
  - http://www.oracle.com/technetwork/middleware/data-integrator/overview/odi-best
  - practices-datawarehouse-whi-129686.pdf
- Oracle® Warehouse Builder Data Modeling, ETL, and Data Quality Guide at
  - http://docs.oracle.com/cd/E11882_01/owb.112/e10935.pdf

Additional online sources include:

- http://en.wikipedia.org/wiki/Slowly_changing_dimension
- http://www.oracle.com/webfolder/technetwork/tutorials/obe/db/10g/r2/owb/owb10gr2_gs/owb/lesson3/slowlychangingdimensions.htm
- http://www.oraclebidwh.com/2008/11/slowly-changing-dimension-scd/
- http://www.informationweek.com/news/software/bi/showArticle.jhtml?articleID=204800027&pgno=1
- http://www.informationweek.com/news/software/bi/showArticle.jhtml?articleID=59301280

An excellent published resource that covers SCD in detail is "The Data Warehouse Toolkit: The Complete Guide to Dimensional Modeling" by Ralph Kimball and Margy Ross.

The SCDs used in Data Foundation solutions are listed in the Oracle Financial Services Data Foundation - SCD Metadata spreadsheet under Technical Metadata for FSDF 8.0.7.0.0.

4.4 Prerequisites

1. The SCD executable should be present under <installation home>ficdb/bin. The file name is scd.
2. The user executing the SCD component should have execute rights on the file mentioned as prerequisite in point 2.
3. The setup tables accessed by SCD component are SYS_TBL_MASTER and SYS_STG_JOIN_MASTER.

SYS_TBL_MASTER stores the information like which is the source stage table and the target dimension tables. The source sometimes can be the database views which could be simple or a complex view.

SYS_STG_JOIN_MASTER stores the information like which source column is mapped to which column of a target dimension table. It makes use of data base sequence to populate into surrogate key columns of dimension tables.

4.5 Tables Used by the SCD Component

The database tables used by the SCD component are:

- SYS_TBL_MASTER

The solution installer will populate one row per dimension for the seeded dimensions in this table.

Table 14: SYS_TBL_MASTER

COLUMN NAME	DATA TYPE	COLUMN DESCRIPTION
MAP_REF_NUM	NUMBER(3) NOT NULL	The Mapping Reference Number for this unique mapping of a Source to a Dimension Table.
TBL_NM	VARCHAR2(30) NOT NULL	Dimension Table Name
STG_TBL_NM	VARCHAR2(30) NOT NULL	Staging Table Name
SRC_PRTY	SRC_PRTY NUMBER(2) NULL	Priority of the Source when multiple sources are mapped to the same target.
SRC_PROC_SEQ	NUMBER(2) NOT NULL	The sequence in which the various sources for the DIMENSION will be taken up for processing.

COLUMN NAME	DATA TYPE	COLUMN DESCRIPTION
SRC_TYP	VARCHAR2(30) NULL	The type of the Source for a Dimension, that is, Transaction Or Master Source.
DT_OFFSET	NUMBER(2) NULL	The offset for calculating the Start Date based on the Functional Requirements Document (FRD).
SRC_KEY	NUMBER(3) NULL	

Sample Data: This is the row put in by the solution installer for the Line of Business dimension.

Table 15: Sample Data

MAP_REF_NUM	6
TBL_NM	DIM_LOB
STG_TBL_NM	STG_LOB_MASTER
SRC_PRTY	
SRC_PROC_SEQ	23
SRC_TYP	MASTER
DT_OFFSET	0
SRC_KEY	

> **NOTE** For any new dimension added, a row will have to be inserted to this table manually.

- SYS_STG_JOIN_MASTER

The solution installer will populate this table for the seeded dimensions.

Table 16: Table for Seeded Dimension

COLUMN NAME	DATA TYPE	COLUMN DESCRIPTION

COLUMN NAME	DATA TYPE	COLUMN DESCRIPTION
MAP_REF_NUM	NUMBER(3) NOT NULL	The Mapping Reference Number for this unique mapping of a Source to a Dimension Table.
COL_NM	VARCHAR2(30) NOT NULL	Name of the column in the Dimension Table.
COL_TYP	VARCHAR2(30) NOT NULL	Type of column. The possible values are given in the following section.
STG_COL_NM	VARCHAR2(60) NULL	Name of the column in the Staging Table.
SCD_TYP_ID	NUMBER(3) NULL	SCD type for the column.
PRTY_LOOK- UP_REQD_FLG	CHAR(1) NULL	Column to determine whether Lookup is required for Priority of Source against the Source Key Column or not.
COL_DATATYPE	VARCHAR2(15) NULL	The list of possible values are VARCHAR, DATE, NUMBER based on the underlying column datatype.
COL_FORMAT	VARCHAR2(15) NULL	

The possible values for column type (the COL_TYPE column) in SYS_STG_JOIN_MASTER are:

- PK – Primary Dimension Value (may be multiple for a given "Mapping Reference Number")
- SK – Surrogate Key
- DA – Dimensional Attribute (may be multiple for a given "Mapping Reference Number")
- SD – Start Date
- ED – End Date
- LRI – Latest Record Indicator (Current Flag)
- CSK – Current Surrogate Key
- PSK – Previous Surrogate Key
- SS – Source Key
- LUD – Last Updated Date / Time

- LUB – Last Updated By
- NN – Not Null
- Sample Data: This is the row put in by the solution installer for the Line of Business dimension.

Table 17: Sample Data

MAP_REF_NUM	6
COL_NM	V_LOB_CODE
COL_TYP	PK
STG_COL_NM	V_LOB_CODE
SCD_TYP_ID	
PRTY_LOOKUP_REQD_FLG	N
COL_DATATYPE	VARCHAR
COL_FORMAT	61

NOTE For any new dimension added, the column details will have to be inserted to this table manually.

- DIM_<dimensionname>_V – The database view which SCD uses as the source. Example: Dim_Bands_V

  These views come as part of install for the dimensions seeded with the application.

NOTE For any new dimension added, a view will have to be created similar to DIM_BANDS_V.

- DIM_<dimensionname> – Output table to which SCD writes the dimension data. A sequence should be added for every user-defined dimension.

TIP Example:

create sequence SEQ_DIM_<DIM> minvalue 1 maxvalue 999999999999999999999999999 increment by 1

4.6 Guidelines for Configuring User Defined (Custom) SCDs

All positive numbering series of Map Reference Numbers ranging from 1 to 999 are reserved for OFSAA Out Of Box Application usage. For custom SCDs, you must use negative numbering series of Map Reference Numbers ranging from -2 to -999.

4.7 Executing the SCD Component

To execute the SCD component from Operations module of OFSAAI, create a batch according to the following steps:

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

1. From the Home menu, select Operations, then select Batch Maintenance.
2. Click New Batch ('+' symbol in Batch Name container) and enter the Batch Name and Description.
3. Click Save.
4. Select the Batch you created in the earlier step by clicking the check box in the Batch Name container.
5. Click New Task ('+' symbol in Task Details container).
6. Enter the Task ID and Description.
7. Select Run Executable, from the Component ID list.
8. Click Parameters. Select the following from the Dynamic Parameters List and then click Save:
   - Datastore Type - Select the appropriate datastore from the list
   - Datastore Name - Select the appropriate name from the list
   - IP address - Select the IP address from the list
   - Executable - scd,<map ref num>

> **TIP** Example:
>
> scd, 61 (Refer the following sections for details)

   - Wait: When the file is being executed you have the choice to either wait till the execution is complete or proceed with the next task. Click the list box of the field provided for Wait in the Value field to select 'Yes' or 'No'. Clicking Yes confirms that you wish to wait for the execution to be complete. Clicking No indicates that you wish to proceed.

- Batch Parameter: Clicking Yes would mean that the batch parameters are also passed to the executable being started; else the batch parameters will not be passed to the executable.

ATTENTION Always select Y in Batch Parameter.

For the Parameter Executable earlier mentioned, the map ref num values are

- -1 (if you want to process all the dimensions). The Executable parameter mentioned earlier would be scd,-1
- If you want to process for a single dimension, query the database table SYS_TBL_MASTER and give the number in the map_ref_num column for the dimension you want to process. These are the ones which come seeded with the install.
- Execute the batch from Batch Execution by choosing the batch created following the steps mentioned in the preceding sections for a date.

NOTE A seeded batch FSDFINFO_DATA_FOUNDATION_SCD is provided which consists of all the required dimensions as different tasks that are part of SCD.

4.8 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen. You can access this from the Left Hand Side (LHS) menu as follows:

From the Home menu, select Operations, then select Batch Monitor.

NOTE For a more comprehensive coverage, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S – Success

The ICC execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE**. The file name will have the batch execution id.

Sample

/dbfiles/home/oracle/OFSAAI/ficdb/log/ficgen

The detailed SCD component log can be accessed on the application server in the directory $FIC_HOME, go one folder up from there and then accessing the following **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE**

The file name will have the batch execution id.

Check the .profile file in the installation home if you are not able to find the paths mentioned earlier.

4.8.1 LOAD DIM TABLES THROUGH SCD

Batch FSDFINFO_DATA_FOUNDATION_SCD has been introduced with 177 tasks under it. These 177 tasks represent the 177 SCD processes where different staging tables would be the source and Dimension Tables would be the targets. The required SCDs have been introduced into SYS_TBL_MASTER table, and subsequently into SYS_STG_JOIN_MASTER.

Depending on the requirement by an application, a task can be excluded or included from the batch execution

4.8.2 LOAD KEY DIMENSIONS USING DRMLOADER AND HIERARCHY FLATTENING

The Dimension Loader functionality in FSDF, enables you to load dimension tables such as DIM_ORG_UNIT,DIM_GL_ACCOUNT,DIM_COMMON_COA, DIM_PRODUCT, DIM_ORG_STRUCTURE.

4.8.3 Loading Data from STG_INTF Tables to DIM_INTF Tables

The following tables are part of staging. Dimension data is stored in the following set of tables:

- STG _<DIMENSION>_B_INTF - Stores leaf and node member codes within the dimension.
- STG_<DIMENSION>_ TL_INTF - Stores names of leaf and node and their translations.
- STG_<DIMENSION>_ ATTR_INTF - Stores attribute values for the attributes of the dimension.
- STG_<DIMENSION>_ HIER_INTF - Stores parent-child relationship of members and nodes that are part of hierarchies.
- STG_HIERARCHIES_INTF - Stores master information related to hierarchies. Data present in the above set of staging dimension tables are loaded into the below set of dimension tables.
- DIM_<DIMENSION>_ B - Stores leaf and node member codes within the dimension.
- DIM_<DIMENSION>_TL - Stores names of leaf and node and their translations.
- DIM_<DIMENSION>_ATTR - Stores attribute values for the attributes of the dimension.

- DIM_<DIMENSION>_HIER - Stores parent-child relationship of members and nodes that are part of hierarchies.
- REV_HIERARCHIES - Stores hierarchy related information.
- REV_HIERARCHY_LEVELS - Stores levels of the hierarchy.

For more information on viewing the structure of staging tables, refer to the Oracle Financial Services Analytical Applications Data Model Data Dictionary.

Staging tables are present for all key dimensions that are configured within the OFSAAI framework. The Dimension IDs used for key dimensions are:

Table 18: Dimension IDs

DIMENSION ID	DIMENSION TABLE	STAGING TABLES
1	DIM_ORG_UNIT	STG_ORG_UNIT_**_INTF
2	DIM_GL_ACCOUNT	STG_GL_**_INTF
3	DIM_COMMON_COA	STG_COMMON_COA_**_INTF
4	DIM_PRODUCT	STG_PRODUCTS_**_INTF
5	DIM_ORG_STRUC- TURE	STG_LEGAL_ENTITY_**_INTF

4.8.4 Executing The Loading Procedure using Batch Framework

The batch for Key Dimension Loader can be executed by executing the task (Task for Loading Data from DRM) present in the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.

Below are the input parameters:

- pDIMENSIONID: This is the dimension ID.
- pSynchFlag: This parameter is used to identify if a complete synchronization of data between staging and fusion table is required. The default value is 'Y'.

For more details refer to Dimension Loaders Section, in Chapter 4 Data Loaders, of the Oracle Financial Services Analytical Applications Data Model Utilities Guide

4.8.5 Executing The Hierarchy Flattening Procedure using Batch Framework

The batch for Dimension Hierarchy flattening can be executed by executing the task (DT for DRM Dimension Hierarchy Flattening) present in the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.

Below are the input parameters:

- pDIMENSIONID: This is the dimension ID.

- pHierarchyId: Enter the Hierarchy ID. If all the hierarchies belonging to a dimension are to be processed then, provide NULL as the parameter value. Else, provide the System Identifier of the hierarchy that needs to be transformed.

For more details refer to Hierarchy Transformation Section, in Chapter 4 Data Loaders, of the Oracle Financial Services Analytical Applications Data Model Utilities Guide.

4.8.6 Executing The SCD for Loading Key Dimensions using Batch Framework

The batch for Key Dimension Loading into final Dimension tables can be executed by executing the seeded batch

<Infodom>_ POP_KEY_DIMENSION_SCD.

4.8.7 Improving SCD Performance

SCD performance can be improved by providing hints and session alter statements. This requires the presence of the following four columns in SYS_TBL_MASTER:

- merge_hint
- select_hint
- session_enable_statement
- session_disable_statement

These columns are present in the OFSAAI versions 7.3.2.4.0 and higher. If these have to be used in OFSAAI versions 7.3.2.2.0 or 7.3.2.3.0 and higher, execute the following SQL queries:

```
ALTER TABLE SYS_TBL_MASTER ADD MERGE_HINT VARCHAR2(255)

/

ALTER TABLE SYS_TBL_MASTER ADD SELECT_HINT VARCHAR2(255)

/

ALTER TABLE SYS_TBL_MASTER ADD SESSION_ENABLE_STATEMENT VARCHAR2(255)

/

ALTER TABLE SYS_TBL_MASTER ADD SESSION_DISABLE_STATEMENT VARCHAR2(255)

/
```

During upgrade to OFSAAI 7.3.2.4.0, ensure to backup SYS_TBL_MASTER table and to drop the preceding four columns, if these scripts are executed in any of the OFSAAI versions prior to 7.3.2.4.0. Otherwise, an upgrade to OFSAAI 7.3.2.4.0 may throw an error, since the columns are existing.

- For improving performance, hints for the MERGE query which is generated internally by the SCD can be provided under MERGE_HINT. Session alters could be mentioned under SESSION_ENABLE_STATEMENT and SESSION_DISABLE_STATEMENT columns.
- SESSION_ENABLE_STATEMENTs will be executed before the MERGE in the SCD and SESSION_DISABLE_STATEMENTs will be executed after the SCD MERGE.
- Since all the tasks under the SCD batch for DIM_ACCOUNT works on the same target, the SESSION_DISABLE_STATEMENTs in SYS_TBL_MASTER cannot be provided when tasks are executed. In this case, there can be a separate SQL file to contain all the SESSION_DISABLE_STATEMENTs to be executed once after all the tasks in the SCD are done. The SESSION_DISABLE_STATEMENT will hold a null in SYS_TBL_MASTER table.
- SESSION_ENABLE_STATEMENTs are required to be mentioned only for the first task in the batch. Here the target is the same for all the tasks under a batch. In case any of the tasks are to be executed separately, then the SESSION_ENABLE_STATEMENTs should be mentioned for any one of the tasks which is included in the batch for the execution.

Example

```
MERGE_HINT and SESSION_ENABLE_STATEMENT in SYS_TBL_MASTER
```

Table 19: Merge Hint and Session Enable Statement

TABLE NAME	STAGE TABLE NAME	MERGE HINT	SESSION ENABLE STATEMENT
DIM_ACCOUNT	STG_LOAN_CONTRACTS	/*+parallel	"alter session enable
	_V	(DIM_ACCOUNT,10) */	parallel dml query", "alter table DIM_ACCOUNT
			nologging parallel 10"

- Execute the SQL file with all the SESSION_DISABLE_STATEMENTs, after the successful completion of the SCD batch.

5 Reclassification of Standard Dimensions

This chapter provides information about Standard Dimension Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes these topics:

- Overview of Reclassification of Standard Dimensions
- Overview of Reclassification of Standard Dimensions Population
- Dimension Data Expectations through SCD
- Overview of Mappers for Reclassification of Standard Dimensions
- Maintenance of Mapper for Reclassification of Standard Dimensions
- Loading Mapper Maintenance through Backend
- Usage of Mapper Tables in Data Flow and Reports

5.1 Overview of Reclassification of Standard Dimensions

There are certain Standard Dimensions in Financial Services Data Foundation, which are pre-populated with standard set of values. These values are used by downstream applications for various reporting requirements. There are equivalent customer specific dimension tables which are populated using Slowly Changing Dimension (SCD) process. It is required to reclassify these user specific values to standard specific values as the reporting expects these standard set of values. The reclassification is done using out of the box Mapper Definitions under Mapper Maintenance screen.

5.2 Overview of Reclassification of Standard Dimensions Population

These are the out of the box User Specific Dimensions to Standard Dimensions reclassification available in Financial Services Data Foundation:

Table 20: Reclassification of Standard Dimensions

USER SPECIFIC DIMENSION		STANDARD DIMENSION	
DIM_BALANCE_CATEGORY	Balance Category	DIM_STD_BALANCE_CATEGORY	Standard Balance Category
DIM_CREDIT_LINE_PURPOSE	Credit Line Purpose	DIM_STD_CREDIT_LINE_PURPOSE	Standard Credit Line Purpose

USER SPECIFIC DIMENSION		STANDARD DIMENSION	
DIM_CREDIT_LINE_TYPE	Credit Line Type	DIM_STD_CREDIT_LINE_TYPE	Standard Credit Line Type
DIM_IRC	Interest Rate Curve	DIM_STANDARD_IRC	Standard Interest Rate Curve
DIM_LOB	Line of Business	DIM_STANDARD_LOB	Standard Line of Business
DIM_MITIGANT_TYPE	Mitigant Type	DIM_STD_MITIGANT_TYPE	Standard Mitigant Type
DIM_PARTY_TYPE	Party Type	DIM_STANDARD_PARTY_TYPE	Standard Party Type
DIM_PRODUCT	Product	DIM_STANDARD_PRODUCT_TYPE	Standard Product Type
DIM_GL_ACCOUNT	General Ledger	DIM_STD_GL_TYPE	Standard General Ledger Type
DIM_VEHICLE_TYPE	Vehicle Type	DIM_STD_VEHICLE_TYPE	Standard Vehicle Type
DIM_WRITE_OFF_REASONS	Write Off Reasons	DIM_STD_WRITE_OFF_REASONS	Standard Write Off Reasons
DIM_RECOVERY_TYPE	Recovery Type	DIM_STD_RECOVERY_TYPE	Standard Recovery Type

5.3 Dimension Data Expectations through SCD

By default, all standard dimensions will be pre-populated with seeded data. It is mandatory to have data in user specific dimensions and then maintain the reclassifications. Therefore, you must execute the SCDs and then map the reclassification codes under Mapper Maintenance.

5.4 Overview of Mapper for Reclassification of Standard Dimensions

These are out of the box mappers that are available in FSDF for the standard dimension reclassifications:

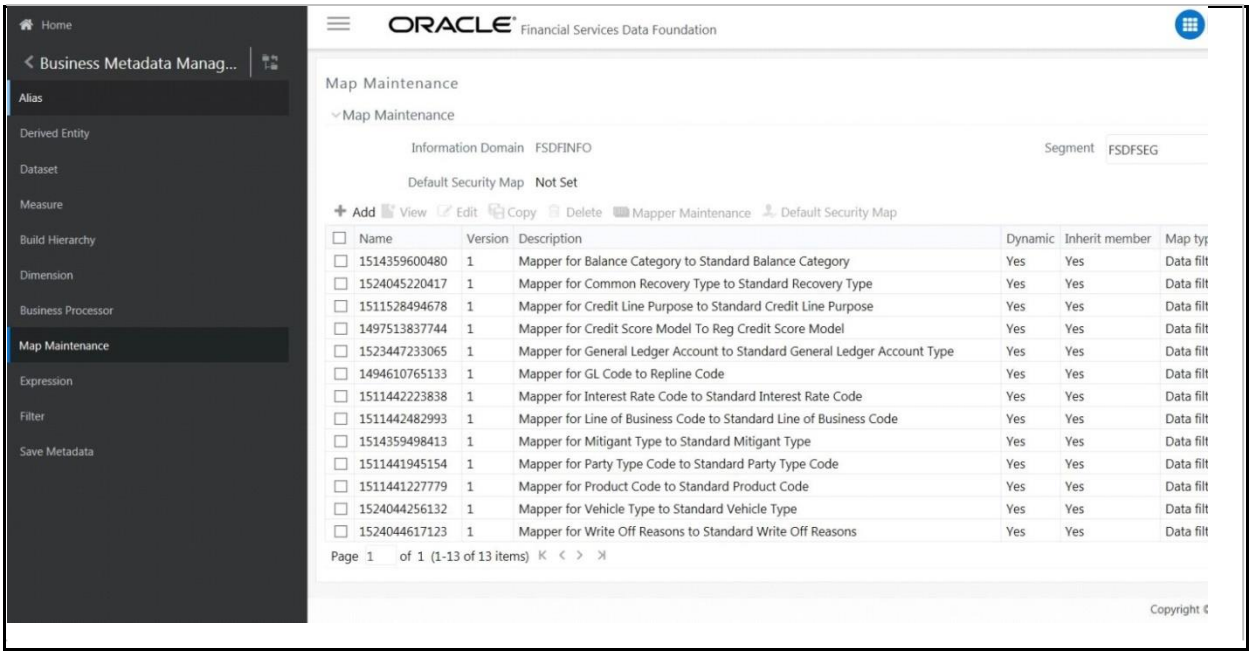
- MAP_PROD_CODE_STD_PROD_TYPE - Mapper for Product Code to Standard Product Code
- MAP_PARTY_TYP_STD_PARTY_TYP - Mapper for Party Type Code to Standard Party Type Code
- MAP_CRDLN_TYP_STD_CRDLN_TYP - Mapper for Credit Line Type to Standard Credit Line Type

- MAP_DIM_IRC_STD_IRC - Mapper for Interest Rate Code to Standard Interest Rate Code
- MAP_DIM_LOB_STD_LOB - Mapper for Line of Business Code to Standard Line of Business Code
- MAP_BAL_CAT_STD_BAL_CAT - Mapper for Balance Category to Standard Balance Category
- MAP_CRDLN_PUR_STD_CRDLN_PUR - Mapper for Credit Line Purpose to Standard Credit Line Purpose
- MAP_MITG_TYP_STD_MITGN_TYP - Mapper for Mitigant Type to Standard Mitigant Type
- MAP_CREDIT_SCR_MDL_REG_MDL - Mapper for Credit Score Model To Reg Credit Score Model
- MAP_DIM_GL_ACCT_STD_GL_TYPE - Mapper for General Ledger Account to Standard General Ledger Account Type
- MAP_GL_CODE_REP_LINE - Mapper for GL Code to Repline Code
- MAP_RECVR_TYP_STD_RECVR_TYP - Mapper for Common Recovery Type to Standard Recovery Type
- MAP_VEHCL_TYP_STD_VEHCL_TYP - Mapper for Vehicle Type to Standard Vehicle Type
- MAP_WRTOFF_STD_WRTOFF_REASN - Mapper for Write Off Reasons to Standard Write Off Reasons

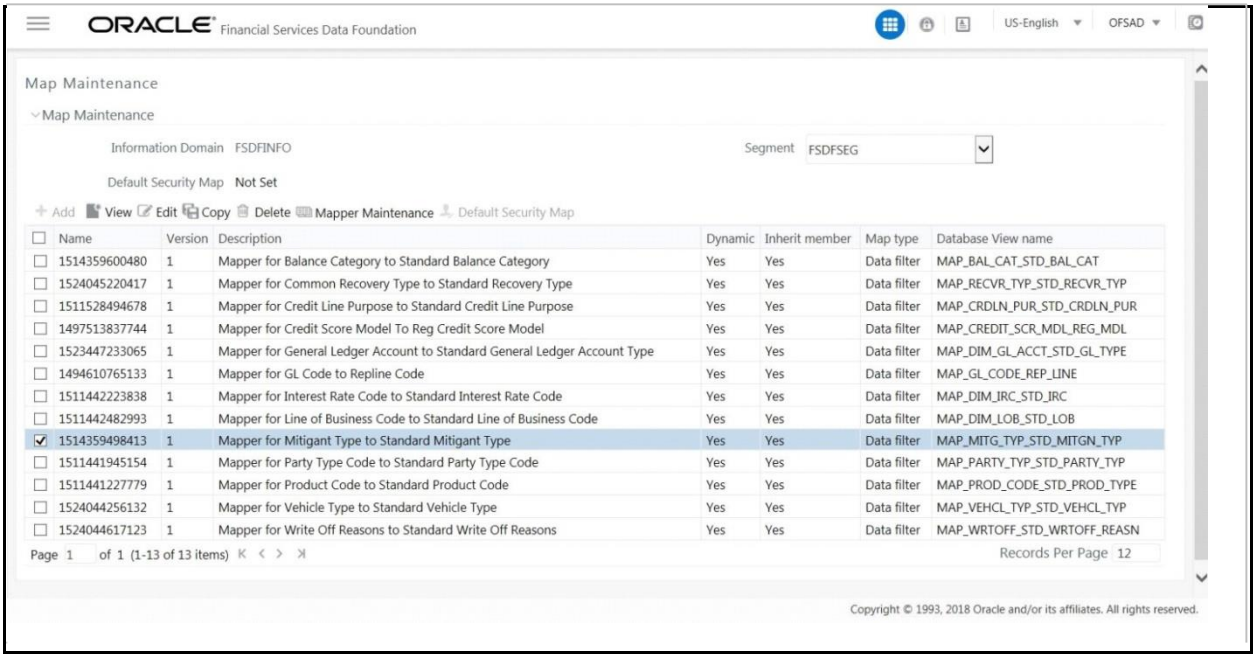
5.5 Maintenance of Mapper for Reclassification of Standard Dimensions

Mapper can be maintained under OFSAAI.

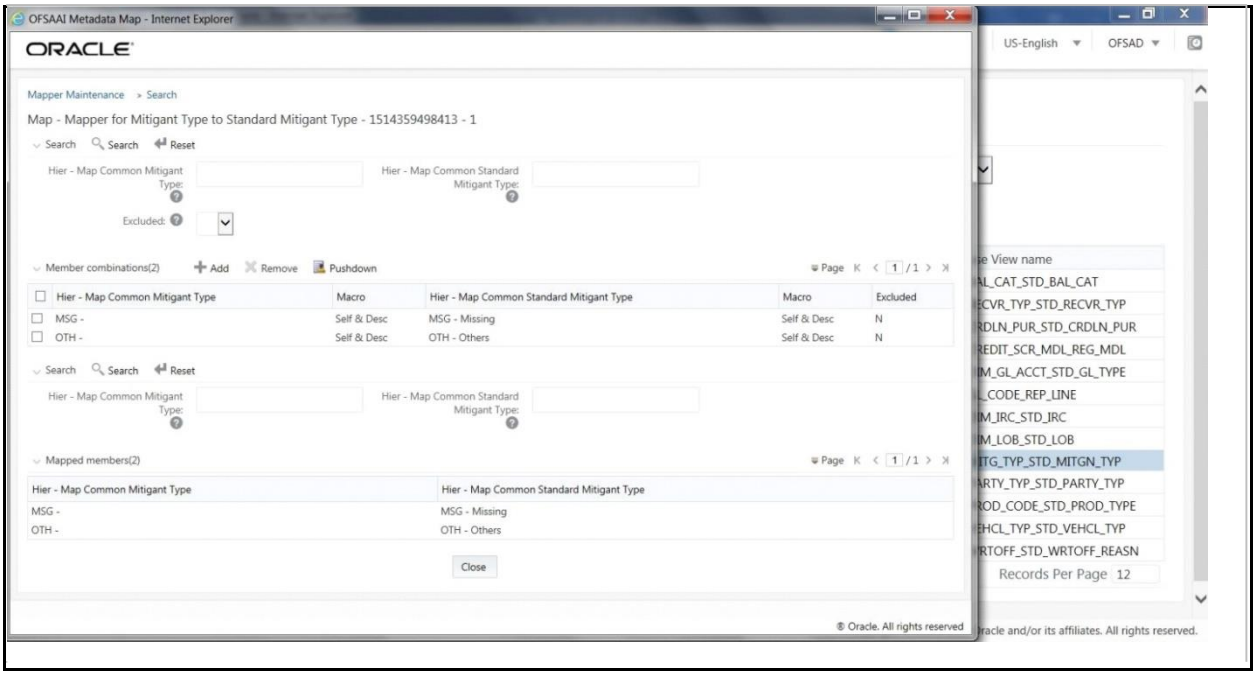
1. Navigate to OFSAAI > Financial Services Data Foundation > Unified Analytical Metadata > Business Metedata Management > Map Maintenance.



2. For illustration, we have selected Mapper for Mitigant Type to Standard Mitigant Type. Click the Mapper Maintenance icon.



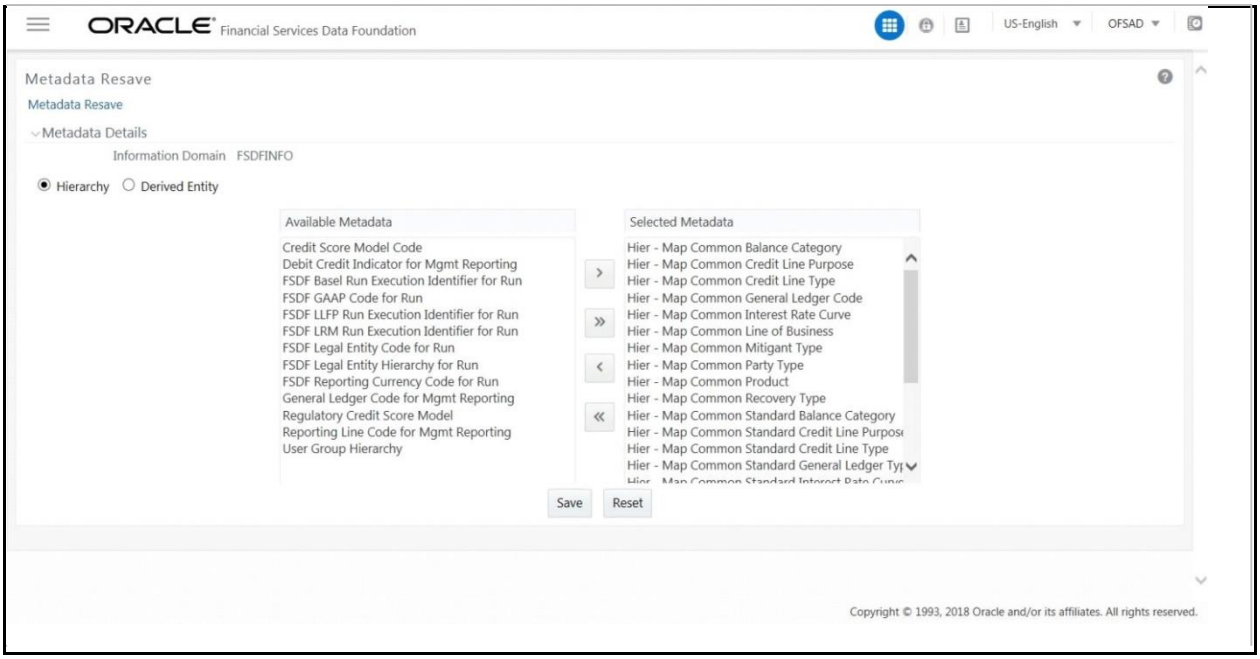
3. FSDF Maps OTH and MSG out-of-the-box for this mapper. The remaining mappings can be maintained by the user according to user specific values.



5.5.1 Prerequisites for Mapper Maintenance

1. Load all the required user specific dimensions using SCD.
2. Resave these hierarchies:
   - HCMDF001 - Hier - Map Common Product
   - HCMDF002 - Hier - Map Common Standard Product Type
   - HCMDF003 - Hier - Map Common Party Type
   - HCMDF004 - Hier - Map Common Standard Party Type
   - HCMDF005 - Hier - Map Common Interest Rate Curve
   - HCMDF006 - Hier - Map Common Standard Interest Rate Curve
   - HCMDF007 - Hier - Map Common Line of Business
   - HCMDF008 - Hier - Map Common Standard Line of Business
   - HCMDF009 - Hier - Map Common Credit Line Type
   - HCMDF010 - Hier - Map Common Standard Credit Line Type
   - HCMDF011 - Hier - Map Common Credit Line Purpose
   - HCMDF012 - Hier - Map Common Standard Credit Line Purpose
   - HCMDF013 - Hier - Map Common Mitigant Type
   - HCMDF014 - Hier - Map Common Standard Mitigant Type

- HCMDF015 - Hier - Map Common Balance Category
- HCMDF016 - Hier - Map Common Standard Balance Category
- HCMDF017 - Hier - Map Common General Ledger Code
- HCMDF018 - Hier - Map Common Standard General Ledger Type
- HCMDF019 - Hier - Map Common Vehicle Type
- HCMDF020 - Hier - Map Common Standard Vehicle Type
- HCMDF021 - Hier - Map Common Write Off Reasons
- HCMDF022 - Hier - Map Common Standard Write Off Reasons
- HCMDF023 - Hier - Map Common Recovery Type
- HCMDF024 - Hier - Map Common Standard Recovery Type



5.5.2 Possible Mapping Combinations

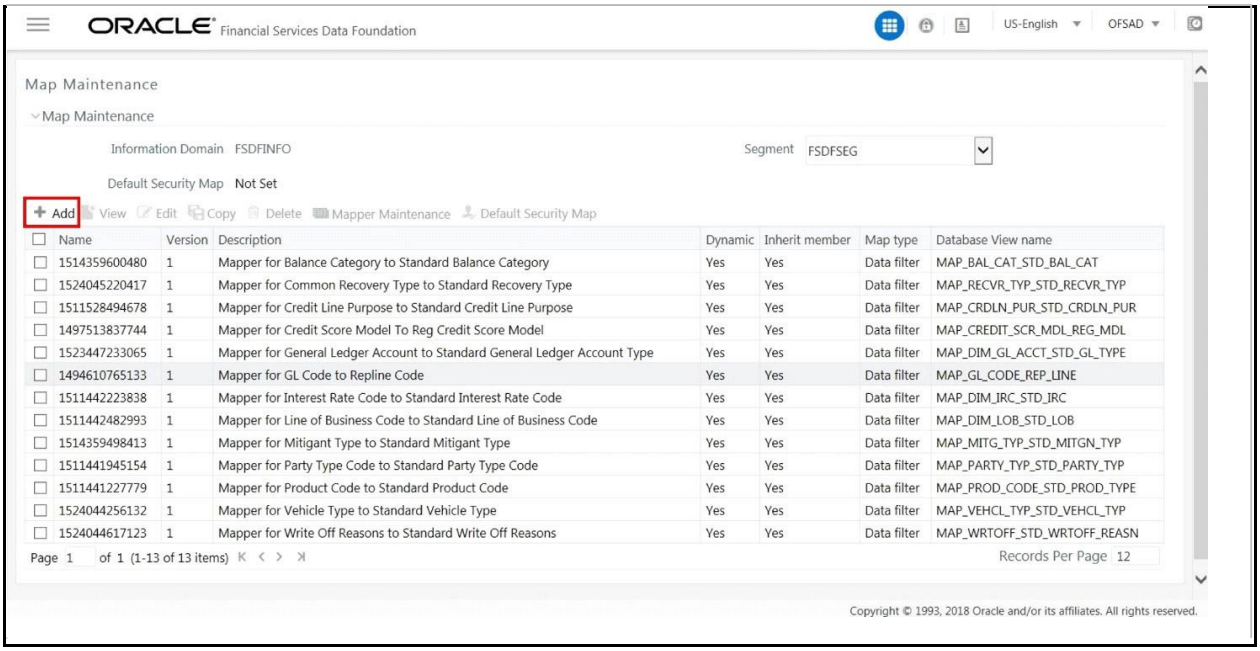
One Standard Dimension table in source can be mapped only to one Standard Dimension table. One to Many or Many to Many mapping leads to error in T2T as the records are duplicated. From the illustration, the possible combinations for Mitigant Type to Standard Mitigant Type mapping are One to One and Many to One mappings.

- One to One Mapping: You can map one Mitigant Type data model to one Standard Mitigant Type data model using the Mapper Maintenance screen. Here, you must select one value in Mitigant Type data model and one value in Standard Mitigant Type data model.

- Many to One Mapping: You can map many values in Mitigant Type data model to one value in Standard Mitigant Type data model using the Mapper Maintenance screen.

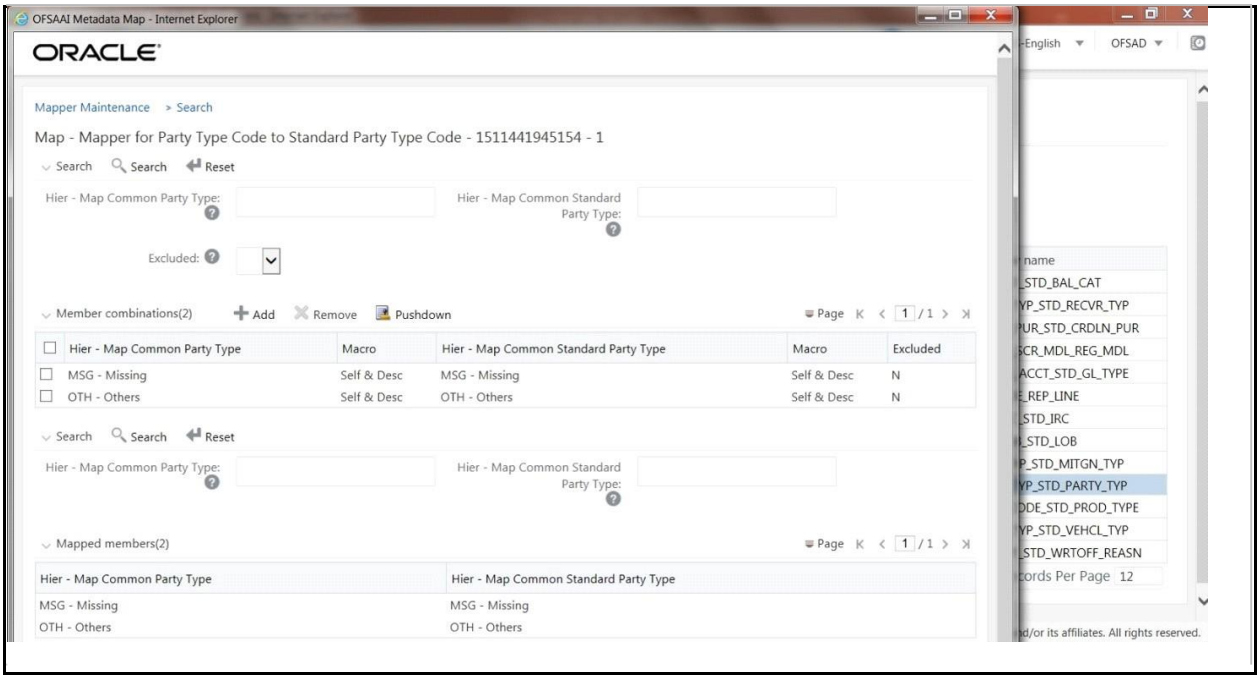
To conduct One to One or Many to One mapping:

1. Navigate to OFSAAI > Financial Services Data Foundation > Unified Analytical Metadata > Business Metedata Management > Map Maintenance.



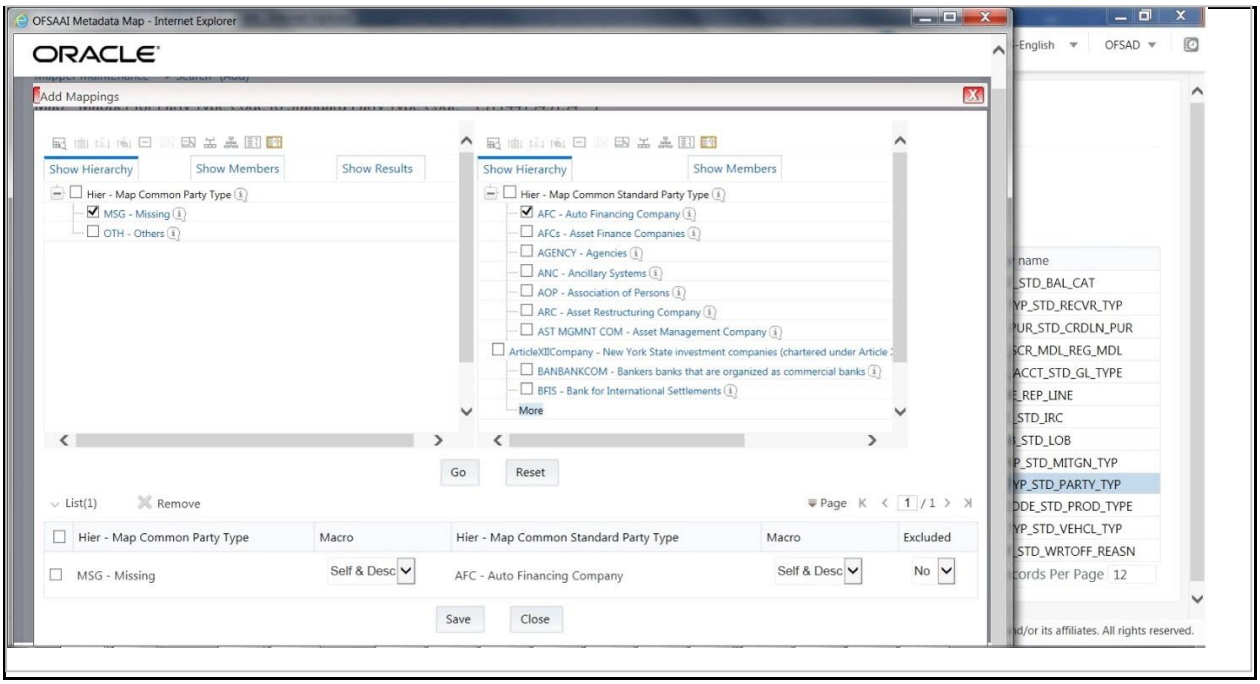
2. Click Create new Map icon to create a new map or select an existing Map. For illustration, Mapper for Party Type Code to Standard Party Type Code value is selected. Click Mapper Maintenance icon.

3. The Mapper Maintenance window opens (In this illustration, the Map - Mapper for Party Type Code to Standard Party Type Code window opens). To conduct One to One or Many to One mapping, in the Member Combinations section, click Add.

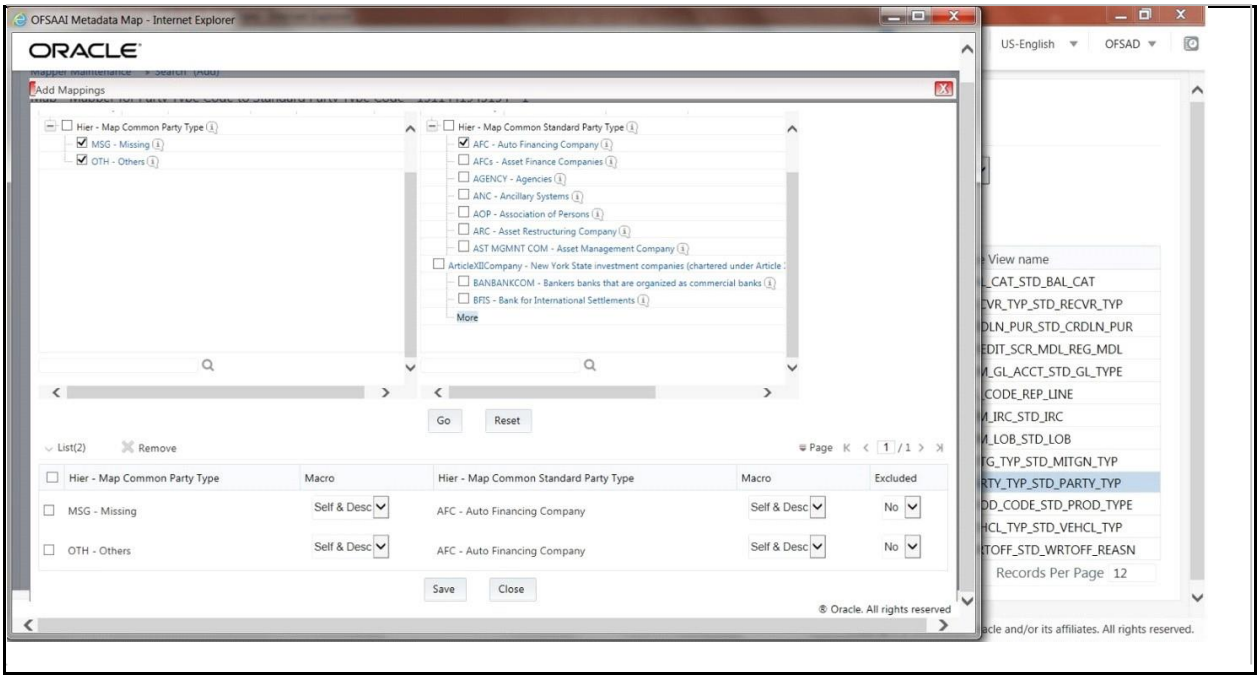


4. The Add Mappings pop-up window opens. In this illustration:

— To map One to One, select one value in the Hier - Map Common Mitigant Type data model and one value in the Hier - Map Common Standard Mitigant Type data model, and click Go. Repeat this step for each One to One data model mapping, and then click Save. In this illustration, MSG - Missing is mapped to AFC - Auto Financing Company.



— To map Many to One, select multiple (two in this illustration) values in the Hier - Map Common Mitigant Type data model and one value in the Hier - Map Common Standard Mitigant Type data model, and then click Go. Click Save. In this illustration, MSG-Missing and OTH-Others are mapped to AFC-Auto Financing Company.



5. An acknowledgment is displayed: Confirm Save? To confirm saving data, click Yes. In the Mapper Maintenance window, in the Mapped combinations and the Mapped members sections, you can see the newly conducted mapping.

5.6 Loading Mapper Maintenance through Backend

Load each Physical table in Atomic Schema with V_MAP_ID as mentioned against each mapper, V_MEMBER_1

=> Customer Specific Value Dimension's Member Code, V_MEMBER_2 => Standard Dimension’s Member Code.

This is the list of Mapper Physical Tables and required details:

PHYSICAL TABLE	V_MAP_ID
MAP_MITG_TYP_STD_MITGN_TYP	1514359498413
MAP_DIM_IRC_STD_IRC	1511442223838
MAP_PROD_CODE_STD_PROD_TYPE	1511441227779
MAP_DIM_LOB_STD_LOB	1511442482993

PHYSICAL TABLE	V_MAP_ID
MAP_CRDLN_PUR_STD_CRDLN_PUR	1511528494678
MAP_PARTY_TYP_STD_PARTY_TYP	1511441945154
MAP_BAL_CAT_STD_BAL_CAT	1514359600480
MAP_CRDLN_TYP_STD_CRDLN_TYP	1511527713328
MAP_CREDIT_SCR_MDL_REG_MDL	1497513837744
MAP_DIM_GL_ACCT_STD_GL_TYPE	1523447233065
MAP_GL_CODE_REP_LINE	1494610765133
MAP_RECVR_TYP_STD_RECVR_TYP	1524045220417
MAP_VEHCL_TYP_STD_VEHCL_TYP	1524044256132
MAP_WRTOFF_STD_WRTOFF_REASN	1524044617123

5.7 Usage of Mapper Tables in Data Flow and Reports

The mapper maintenance output is always physically stored in underlying tables. These tables are registered in OFSAA as an object. Therefore, these tables can be used, without any restrictions, in any of the metadata that requires reclassification. Financial Services Data Foundation Data Flows (T2Ts) make use of this information to populate the Standard Dimension Surrogate Keys of Results area tables.

6 Legal Entity Consolidation

6.1 Introduction

The reporting bank may be a part of a financial group that has multiple legal entities such as parent or child entities (subsidiaries) under its name. User can select the entity for which processing is to happen, and whether a ‘Solo’ or ‘Consolidation’ execution is to be done. Select these options using the Run Execution screen, but if it is executed using RRF execution then these options have to setup using the rule ‘Capital Consolidation Level Selection’ in the process 'CAPITAL_CONSOLIDATION’.

CAPITAL_CONSOLIDATION is the first process to be added in all the runs defined through Run Rule Framework except the ones for staging data population. Run Management screen selects this process by default.

Run Parameters Assignment:

Basel Accord mentions about different approaches for calculating RWA. Run Management framework in the product allows the reporting bank to define and execute a Run by selecting a combination of different Basel II approaches for RWA computation.

Run parameter Assignment is also part of Capital Consolidation process. The rule ‘Run Definition User Defined Run Param Assignment’ is used to assign the run parameters in case of a run executed through Run Rule Framework. But if the execution is through run management, the parameters are populated based on the run defined in the run definition screen.

6.2 Consolidation Procedures

Following listed are the Consolidation procedures:

- Combine like items of assets, liabilities, equity, income, expenses and cash flows of the parent with those of its subsidiaries
- Offset (eliminate) the carrying amount of the parent's investment in each subsidiary and the parent's portion of equity of each subsidiary (IFRS 3 Business Combinations explain how to account for any related goodwill)
- Eliminate or retain in full intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between entities of the group (profits or losses resulting from intragroup transactions that are recognized in assets, such as inventory and fixed assets, are eliminated or retained in full). During Consolidation Run, a parameter INTRAFLAG is introduced for Intra Company Elimination at the setup level with YES and NO values. The Intra Company Elimination can be chosen by the customer to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts.

6.3 Types of Consolidation

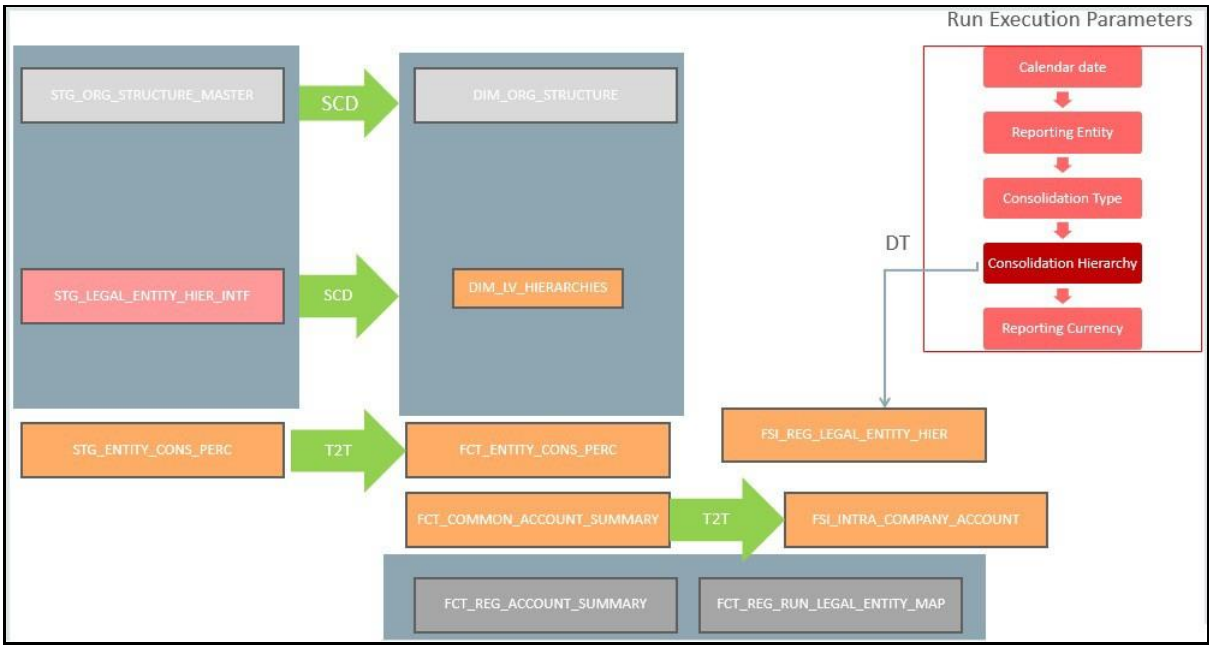
Following listed are the types of Consolidation:

- Simple Aggregation: As name suggests Simply aggregate across entities without any elimination
- Full Consolidation : Aggregate. Eliminate Intra group transactions.
- Proportionate Consolidation : Aggregate. Eliminate Intra group transactions and balances reflect consolidation percentage owned by parent in subsidiary (This can be configured as per the customer requirement).

6.4 Consolidation Activities

Scope Of consolidation is about list of Entities which participate in consolidation. Legal Entity Structure is looked through Organization Structure Dimension. This stores parent child relationship. This is stored only once. While moving the data, Legal Entity can move related entities to processing/reporting area. Legal structure being finalized once, this structure only stores one parent child relationship.

6.5 Data Flow



7 Executing Run through Run Management

7.1 Introduction

Starting from FSDF 8.0.3.1.0 release, we are packaging two out of the box Runs for data loading. Same can be executed through the Run Management screen. The following are the two runs that are packaged as part of Installer.

- Financial Services Data Foundation Sourced Run: This Run can be executed once per day for Data Movement from Staging Area to Results Area for Non-RUN SKEY tables.
- Financial Services Data Foundation Execution Run: This Run can be executed any number of times per day with each unique RUN SKEY for Data Movement in Run enabled tables.

7.2 Summary and Details Page

Upon initially navigating to Run Management > Run Management, a summary page is displayed showing all the defined Runs. By selecting a Run or by using search criteria, you can control the set of Runs that are displayed. This page displays the list of runs defined in the Run Rule (RRF) Framework except those with Immediate Execution Option Yes in the grid.

7.3 Navigation within the Summary Page

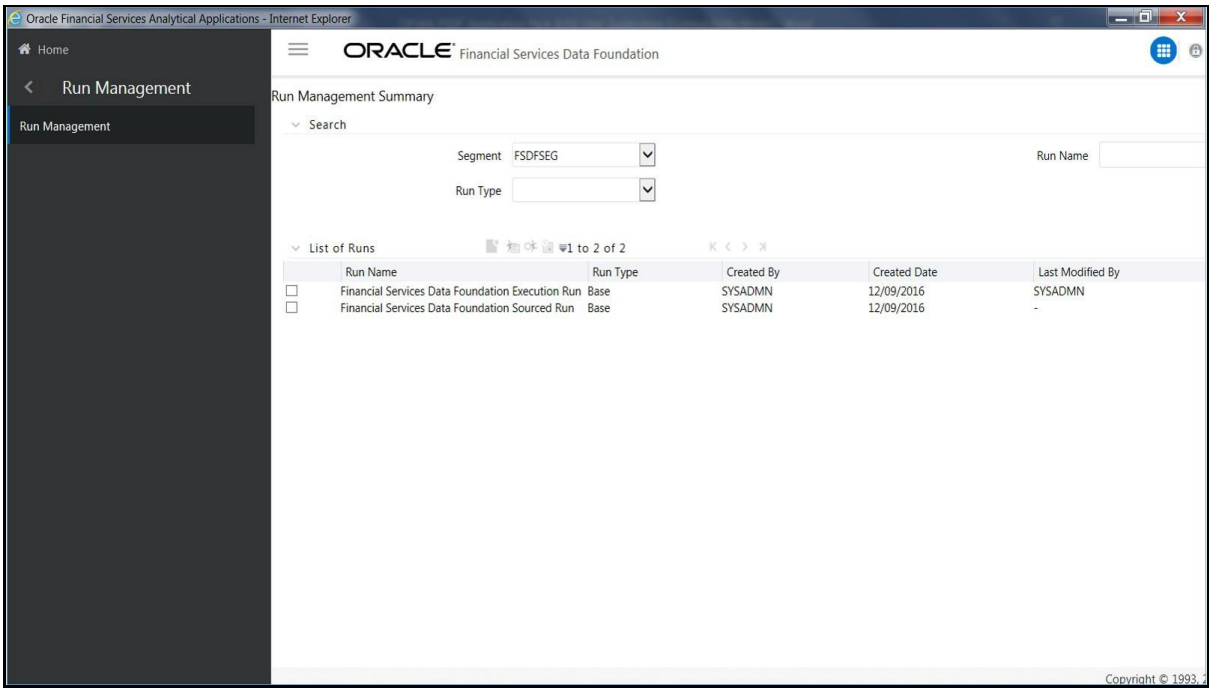
When you first navigate to the Run Management summary page, the Runs defined in the RRF are presented in a summary grid. The Run Management summary page has two sections:

- Search
- List of Runs

7.3.1 Search Section

Among other properties, each Run possesses a segment, a Run Name, and a Run Type. You may search on any of these properties in the Search section.

Figure 7: Search



7.3.2 List of Runs Section

The List of Runs section presents a grid containing all of the Runs that meet your search criteria. This summary grid offers several icons that allow you to perform different functions when a Run is selected.

To select a Run, click the check box in the first column of the grid.

- View: Selecting a single row out of the grid enables the View icon. Clicking the View icon allows you to view the detailed definition of a Run on a read-only basis. The View icon is only enabled when a single Run has been selected.
- Run Default Parameters: Selecting a single row out of the grid enables you to define the default parameters of a Run.
- Run Execution Parameters: Selecting a single row out of the grid enables you to define the execution parameters of a Run.
- Run Execution Summary: Selecting a single row out of the grid enables you to view the status of the Run executed in the Run Execution parameters window.

7.3.2.1 List of Runs Summary Grid

The following columns categorize each Run in the summary grid:

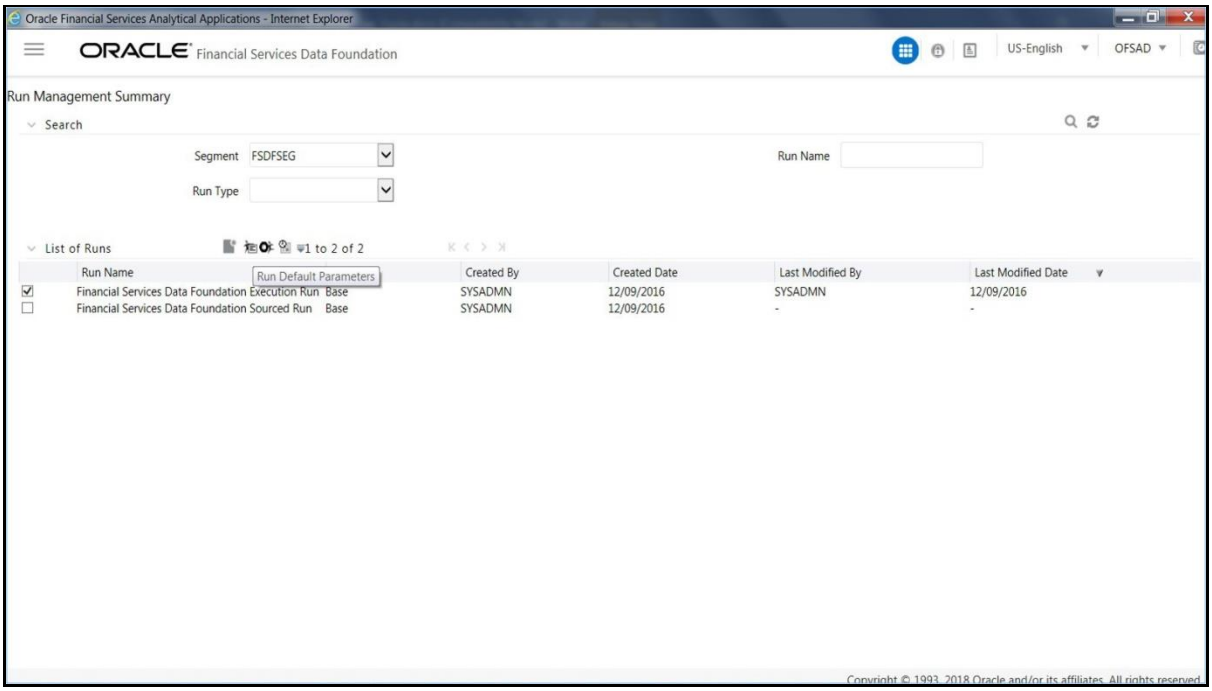
- Run Name: Displays the short name of the Run.
- Run Type: Displays the type of Run, Simulation or Baseline Run.
- Created By: Displays the name of the User who defined the Run.

- Creation Date: Displays the date on which the Run was created.
- Last Modified By: Displays the name of the user who has performed any modifications to the Original Run details.
- Last Modified Date: Displays the date on which the Original Run details were modified.

7.3.2.2 Navigation within Run Default Parameters Window

Click the Run Default Parameters icon on the navigation bar of the Run Management Summary Window to input the Run level parameters. The Run Parameters Window is displayed.

Figure 8: Run Management Summary



NOTE To modify or view the parameters the Modify Run Parameters role should be mapped to that relevant user profile. This window consists of two sections Run Details and Run Execution Parameters.

7.3.2.2.1 Run Details Section

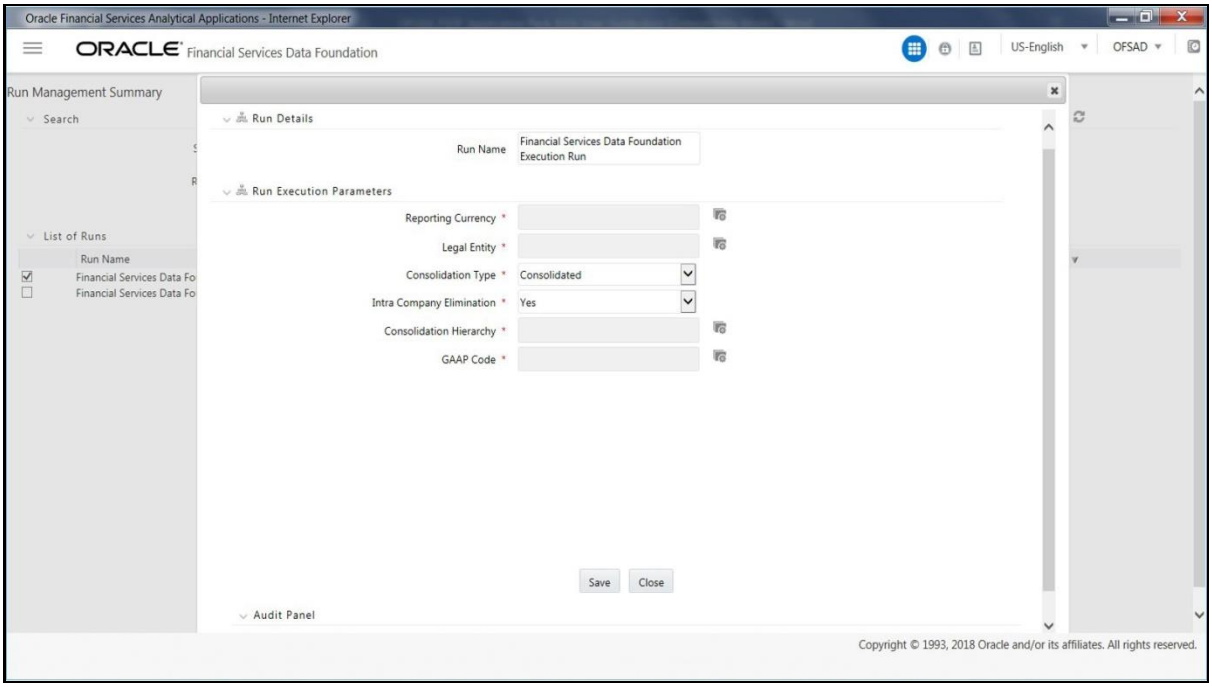
This section displays the name of the Run which is a read only value.

7.3.2.2.2 Run Execution Parameters Section

In this section you can update the following:

- Reporting Currency: Reporting Currency Code parameter is used for calculation of amounts in Reporting Currency during Data Population.

- Legal Entity: Legal Entity Code parameter is used for identifying the legal entity, which is used for the Run.
- Consolidation Type: Consolidation Type parameter is used for selecting legal entities on a solo or consolidation basis. In a solo run, only the selected legal entity will be used. In a consolidated run, along with the selected legal entitiy, all its child legal entities are also used.
- Intra Company Elimination: Intra Company Elimination can be chosen to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts during a Consolidated Run.
- Consolidation Hierarchy: Legal Entity Hierarchy is used for selecting the required hierarchy for the consolidated run. This parameter is not required for solo run.



Before proceeding further, to ensure that you do not lose the updated data, click the Save button.

NOTE To get the values for Reporting Currency parameter and Legal Entity parameter, you need to save the following hierarchies under Save Metadata screen:

- Legal Entity Code for Run (HFSDF001)
- Reporting Currency Code for Run (HFSDF002)
- Legal Entity Hierarchy for Run (HFSDF003)
- User Group Hierarchy (H_GROUP)

NOTE For further details on Save Hierarchy, see OFS Analytical Applications

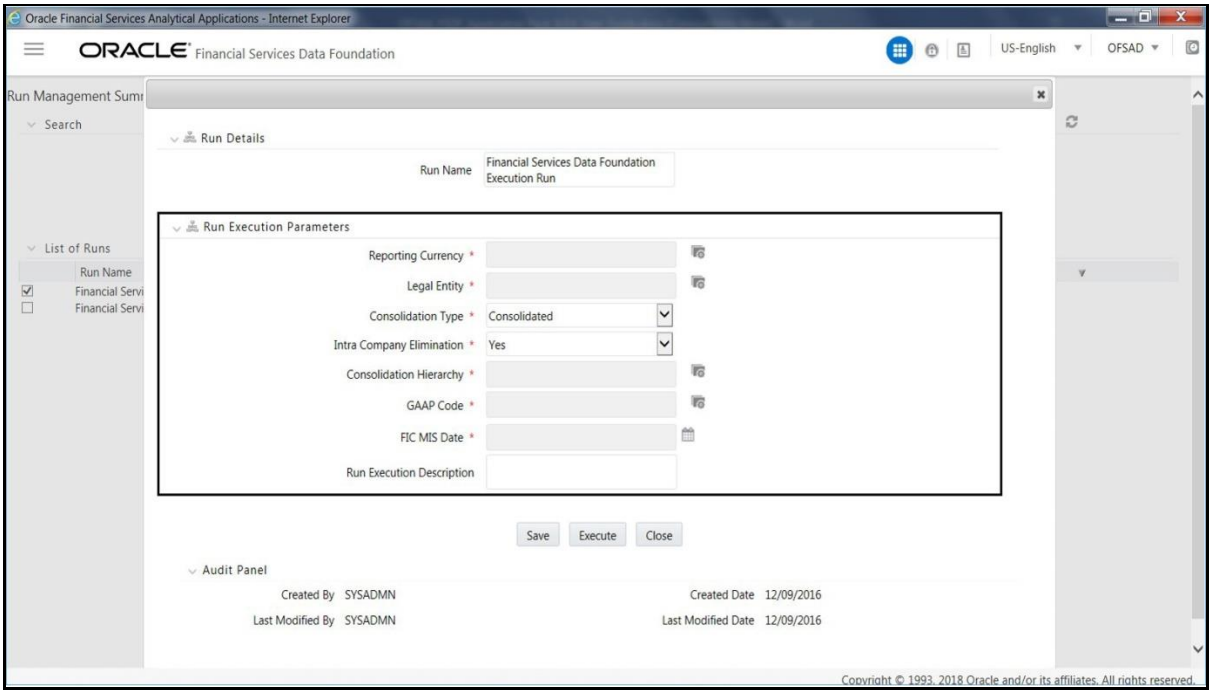
Infrastructure User Guide.

The values selected for reporting currency and Legal entity for the selected Run will be shown as the default selected value in the Run Execution Parameters screen.

7.3.2.3 Navigation within Run Execution Parameters Window

Click the Run Execution Parameters icon on the navigation bar of the Run Management Summary window. The Run Execution Parameter window allows you to enter and save the Run execution parameters.

Figure 9: Run Details

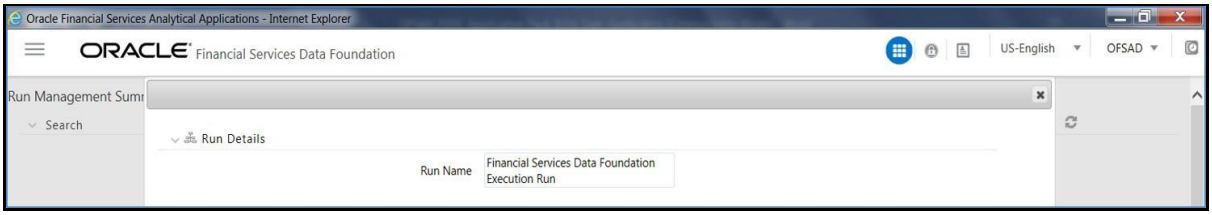


The Run Execution Parameters window consists of two sections Run Details and Run Execution Parameters.

7.3.2.3.1 Run Details Section

This section displays the name of the Run which is a read only value.

Figure 10: Run Details



7.3.2.3.2 Run Execution Parameters Section

The following Run execution parameters can be updated:

- Reporting Currency: Reporting Currency Code parameter is used for calculation of amounts in Reporting Currency during Data Population.
- Legal Entity: Legal Entity Code parameter is used for identifying the legal entity, which is used for the Run.
- Consolidation Type: Consolidation Type parameter is used for selecting legal entities on a solo or consolidation basis. In a solo run, only the selected legal entity will be used. In a consolidated run, along with the selected legal entity, all its child legal entities are also used.
- Intra Company Elimination: Intra Company Elimination can be chosen to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts during a Consolidated Run.
- Consolidation Hierarchy: Legal Entity Hierarchy is used for selecting the required hierarchy for the consolidated run. This parameter is not required for solo run.
- FIC MIS Date: Enter the extraction date in this field.
- Run Execution Description: Enter a longer description of the Run.

> **NOTE** To get the values for Reporting Currency parameter and Legal Entity parameter, you need to save the following hierarchies under Save Metadata screen:

- Legal Entity Code for Run (HFSDF001)
- Reporting Currency Code for Run (HFSDF002)

By clicking the Save button; a batch with the defined Run execution parameters is created. The batch created can be executed from the Batch Execution screen.

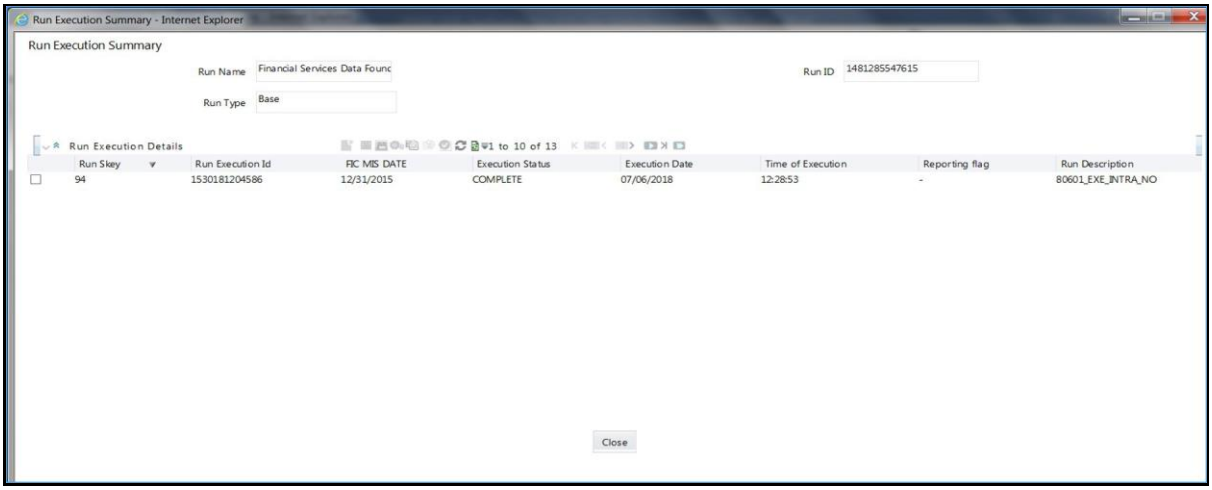
By clicking the Execute button, a batch with the defined Run execution parameters is created and executed immediately. Status of the executed run can be seen in Batch Monitor screen or Run Execution Summary page.

> **NOTE** For further details on Save Hierarchy and Batch Execution, refer to Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.7.0.0 on OHC. To execute a Run, the execute run role should be mapped to your user profile. Currently, the users mapped under FSDF Admin or FSDF Operator User Groups automatically have this role.

7.3.2.4 Navigation within Run Execution Summary Page

Select a Run from the Run Management Summary page and click the Run Execution Summary icon to display the Run Execution Summary page where the following sections are displayed.

Figure 11: Run Execution Summary



This section consists of the two sections Run Execution Summary and Run Execution Details.

7.3.2.4.1 Run Execution Summary Section

The Run Execution Summary displays the following details:

- Run Name: Displays the name of the Run.
- Run Type: Displays the type of Run, baseline or Simulation.
- Run ID: Displays the Run Execution ID.

7.3.2.4.2 Run Execution Details Section

The Run Execution Details section presents a grid containing all of the executions of Run and status of a particular execution of the Run. The menu bar in this grid offers several icons that allow you to perform different functions when a Run Execution is selected. To select a Run Execution, click the check box in the first column of the grid. More than one Run Execution can be selected at a time but this will cause some of the icons to become disabled.

- Parameter details: Click this icon to view the Run execution and Run default parameter details in read-only mode.
- Copy: Click Copy icon, to copy the parameters as defined in the Run Execution Parameter window to create a new batch.
- Execute: Click Execute icon to trigger the batch which has been created from the Run Execution Parameter window. The status of the triggered batch is displayed. In the Execution Summary page, multiple selections of the execution ids are available to trigger a batch.

- Request Report Flag: To request for a Report Flag, select a Run Execution ID in the Run Execution Summary page and click the Request for Reporting Execution icon. A dialog box will appear for you to input your comments. Click Submit and the status of this Run is displayed in the Report Flag section. Only a successful execution can be requested for reporting. For the selected Run and Execution date, there can be only one reporting flag.
- Override Report Flag: Any reporting execution can be overwritten with another execution. Select a successfully triggered batch in the Run Execution Summary page. The Override Report Flag icon is enabled, if an execution is already marked as a Report Flag. You can override the execution by updating your comments. This should be approved by the approver and the procedure is similar to the procedure detailed in the Approve Report Flag section.
- Approve Report Flag: After submitting the Reporting Run in the earlier section, the Approve Report Flag icon is enabled. On clicking the icon a dialog box with the User Comments and Approver Comments is displayed. The Approver can update the comments in the Approver Comments field and then click the Approve or Reject button accordingly.

7.3.2.4.3 Run Execution Grid

The Run Execution Details displays the following details:

- Run Skey: Displays the Run skey of an individual execution.
- Run Execution Id: Displays the execution ID of the Run.
- FIC MIS DATE: Enter the extraction date in this field.
- Execution Status: Displays the status of the execution which is failed or complete.
- Execution Date: Displays the date when the Run was executed.
- Time of Execution: Displays the time when the Run was executed.

8 Run Execution from Command Line

The Run Execution can be performed from the Command Line Interface with the following steps.

1. Navigate to the $FIC_HOME/ficdb/conf directory.
2. Enter the details for the following fields in the <RUN_NAME>.properties.template file:
   - FSDF Execution Run - FSDF_EXE_RUN.properties.template

     and
   - FSDF Sourced Run - FSDF_SOURCED_RUN.properties.template

Table 21: Details for <RUN_NAME>.properties.template file

NAME	DESCRIPTION	EXAMPLE
INFODOM	Specify name of Information Domain (INFODOM) of Run Definition	INFODOM=FSDFINF300
SEGMENT	Specify the Folder Code / Segment Code of Run Definition	SEGMENT=FSDFSEG
RUN_CODE	Specify the Run Code of the Run Definition	RUN_CODE=FSDF_EXE_RUN Or RUN_CODE=FSDF_SOURCED_RUN
USER_ID	Specify the OFSAAI User ID for the Run Execution	USER_ID=rrruser
HIER_RCY	Specify the Reporting Currency Hierarchy Code for the Run Execution	HIER_RCY=[HFSDF002].[USD] (default value)
HIER_LE	Specify the Legal Entity Code for the Run Execution	HIER_LE=WFCB
HIER_CONSOHIER	Specify the Consolidation Hierarchy for the Run Execution	HIER_CONSOHIER=[HFSDF003].[Default Org Structure Hierarchy] (default value)

NAME	DESCRIPTION	EXAMPLE
LIST_CONSOTYPE	Specify the Consolidation Type for the Run Execution	LIST_CONSOTYPE=<value> List of values accepted are: CONSL: Consolidated Run SOLO: Solo Run (default value)
HIER_GAAP	Specify the GAAP Code Hierarchy for the Run Execution	HIER_GAAP=[HFSDF005].[USGAAP]
HIER_BASELEXEID	This is an optional Parameter. Only if OFSAA - BASEL Run Execution is completed. Specify the BASEL Run Execution Identifier Hierarchy for the BASEL Processed Output to FSDF Results. Format: [Hierarchy].[V_RUN_ID].[N_RUN_SKEY]	HIER_BASELEXEID=[HFSDF004].[1234567890].[100]
HIER_LRMEXEID	This is an optional Parameter. Only if OFSAA - LRS Run Execution is completed. Specify the LRS Run Execution Identifier Hierarchy for the LRS Processed Output to FSDF Results. Format: [Hierarchy].[V_RUN_ID].[N_RUN_SKEY]	HIER_LRMEXEID=[HFSDF006].[1234567891].[101]
HIER_FDICEXEID	This is an optional Parameter. Only if OFSAA - LRS Run Execution is completed. Specify the LRS Run Execution Identifier Hierarchy for the LRS Processed Output to FSDF Results. **Format**: [Hierarchy].[V_RUN_ID].[N_RUN_SKEY]	HIER_FDICEXEID=[HFSDF008].[1234567891].[101]

NAME	DESCRIPTION	EXAMPLE
HIER_LLFPEXEID	This is an optional Parameter. Only if OFSAA - LLFP Run Execution is completed. Specify the LLFP Run Execution Identifier Hierarchy for the LLFP Processed Output to FSDF Results. Format: [Hierarchy].[V_RUN_ID].[N_RUN_SKEY]	HIER_LLFPEXEID=[HFSDF007].[1234567892].[102]
RUN_EXE_COMMENTS	Specify the Comments for Run Execution	RUN_EXE_COMMENTS=FSDF Results Run
REQ_TYPE	Specify the Type of Execution for Run	REQ_TYPE=E List of Values Accepted are: E: Create Batch and Execute (default value S: Create Batch

3. Navigate to `$FIC_HOME/ficdb/bin` directory.
4. Rename the .properties.template file to .properties. Changed file names are:
   - FSDF Execution Run - FSDF_EXE_RUN.properties

     and
   - FSDF Sourced Run - FSDF_SOURCED_RUN.properties
5. Execute the following `.sh` file by passing two arguments.

   ExecuteRunManagement.sh <file name> <execution date>

NOTE The execution date is in YYYYMMDD format. For example: 20171130

For example: ExecuteRunManagement.sh FSDF_EXE_RUN.properties 20171130

NOTE After successfully invoking the Run, the following messages are displayed.

Wait till the newly created batch execution completes, and returns the status code for success or failure. Therefore, further action can be taken using autosys batch scheduler

```
/scratch/ofsaacb/OFSAA/FICDB/bin>ExecuteRunManagement.sh RNUS_REG_RUN.properties 20171206
sDynamParam:HIER#LE~WFCB,HIER#CONSOHIER~[HFSDF003].[Default Org Structure Hierarchy],HIER#RCY~[HFSDFC02].[USD],HIER#GAAP~[HFSDF005].[USGAAP],LIST#CONSOTYPE~SOLO
responseStatus:200
responsePhrase:OK
response:successfully created batch
```

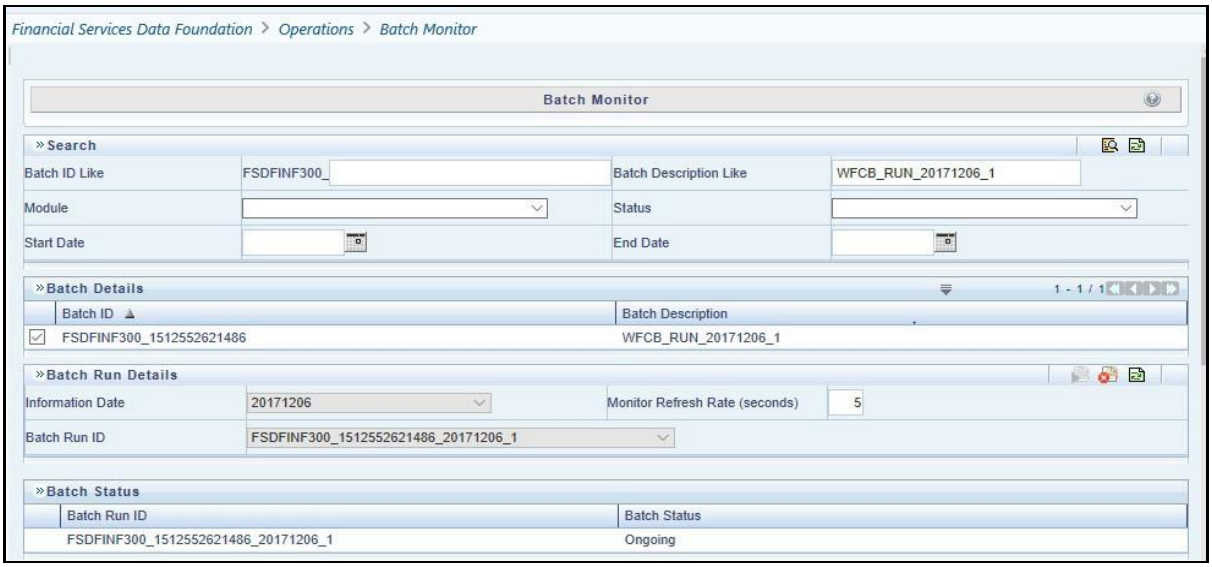
With REQ_TYPE=S, the message “Successfully created batch” is displayed in the console.

```
sDynamParam:HIER#LE~WFCB,HIER#CONSOHIER~[HFSDF003].[Default Org Structure Hierarchy],HIER#RCY~[HFSDFC02].[USD],HIER#GAAP~[HFSDF005].[USGAAP],LIST#CONSOTYPE~SOLO
responseStatus:200
responsePhrase:OK
response:Batch Triggered Successfully
```

With REQ_TYPE=E, the message “Batch Triggered Successfully” is displayed in the console.

> **NOTE** If any of the parameters in the FSDF_EXE_RUN.properties file is not entered correctly, the execution does not display the success message as above.

The Batch execution status can be monitored through the Batch Monitor link from the OFSAA Application Interface and the relevant logs are generated under the $FIC_HOME/ficdb/log directory.



9 Big Data in OFSDF

This chapter provides information about Big Data processing supported in the Oracle Financial Services Data Foundation application.

9.1 Overview

FSDF supports Big Data processing on HDFS (Hadoop Distributed File System) using Hive as Query Engine. The AAI application components such as SCD, H2H, and DQs provide equivalent Hive support. For more information, see OFS Analytical Applications Infrastructure User Guide.

9.2 FSDF Big Data Architecture

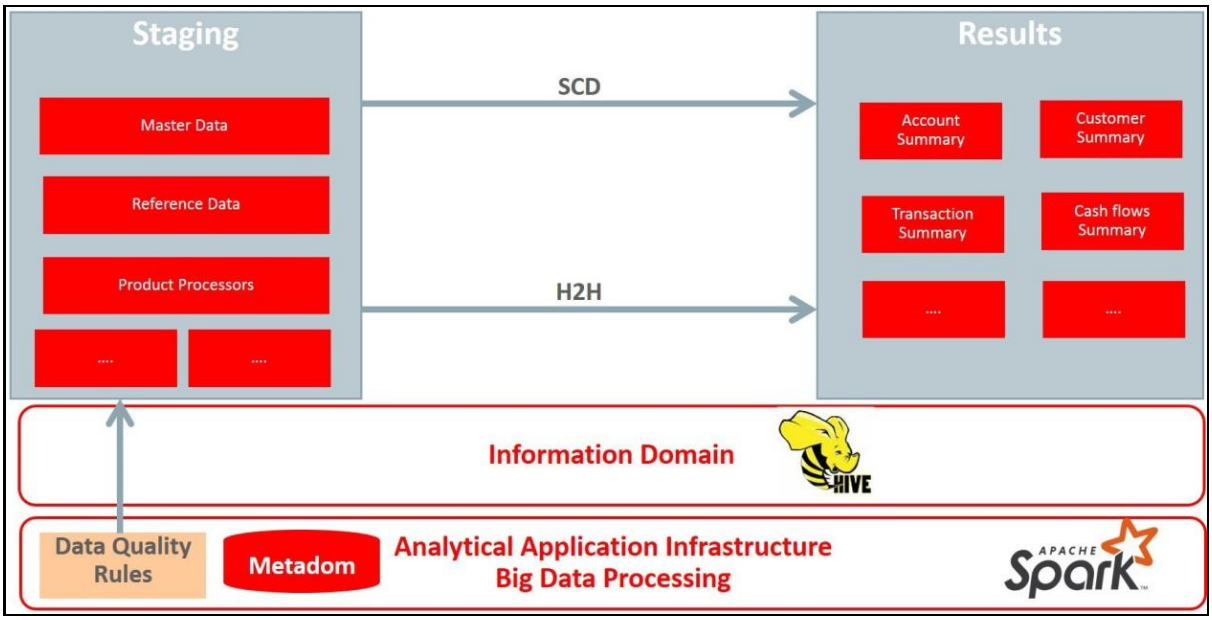
In Big Data processing, FSDF provides two types of deployment processes for Hive support. They are:

- Staging and Results on Hive
- Staging on Hive and Results on Oracle

9.2.1 Staging and Results on Hive

In the Staging and Results on Hive deployment process, the Staging, and Results model elements are a part of Hive known as Hive Datadom. The config schema definitions used by AAI and certain metadata definitions that were part of Atomic schema now resides in a RDBMS schema known as Metadom. Refer to the below architecture diagram for the representation of this deployment process.

Figure 12: FSDF Big Data Architecture - Staging and Results on Hive



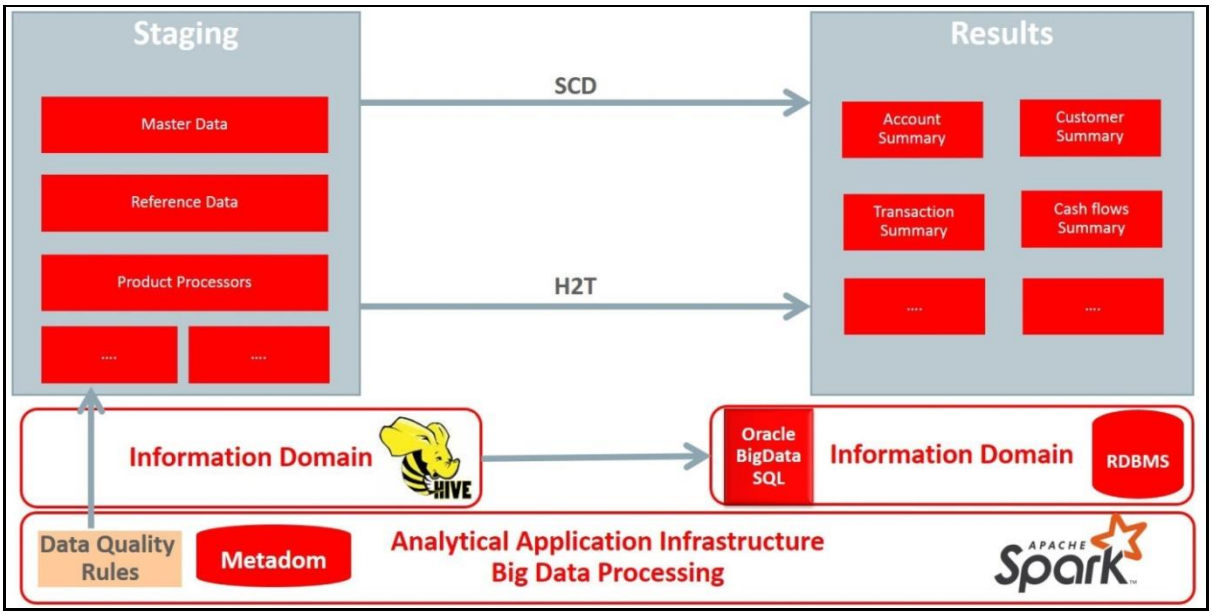
For the list of supported FSDF Hive Metadata definitions, refer to Run Chart, SCD Metadata, and Technical Metadata (Staging Source) documents at My Oracle Support.

> **NOTE** Ensure that String values, which are null, must contain \n and then source to Hive stage tables.

9.2.2 Staging on Hive and Results on RDBMS

In the Staging on Hive and Results on RDBMS deployment process, the Staging occurs on Hive, known as Hive Datadom, and the Results model elements are a part of RDBMS, known as RDBMS Datadom. In this deployment process, an additional software is required, which is Oracle BigData SQL (For more information, see Financial Services Data Foundation Installation Guide Release 8.0.7.0.0). Oracle BigData SQL software resides on Hive and RDBMS Datadoms, and enables the user to create a link to Hive Stage tables as external tables in RDBMS. This software manages the data representation of the Hive tables in RDBMS Datadom and can be accessed as external table objects. As a result, enables the use of RDBMS infrastructure components of SCD, T2T, and DQs. For more information on External Tables, see the section Oracle's External Tables Utility in the Financial Services Data Foundation Installation Guide Release 8.0.7.0.0. Refer to the below architecture diagram for the representation of this deployment process.

Figure 13: FSDF Big Data Architecture - Staging on Hive and Results on RDBMS



9.2.3 Staging and Results on Hive

This section provides information about the Staging and Results on Hive.

9.2.3.1 Modifications

Modifications in OFSDF Hive (Staging and Results on Hive deployment process) compared to OFSDF RDBMS are:

- Dim Dates Population

The Dim Dates functionality in Hive is similar to that of RDBMS. The difference exists in the date input format on the UI. In OFSDF Hive, the Date Range input format is, an executable textbox contains .sh file name followed by the FROM and TO dates.

For example:

```
load-dimdates-run.sh,20110101,20110105
```

9.2.3.2 Workarounds

The list of workarounds in OFSDF Hive (Staging and Results on Hive deployment process) is:

1. The process of data access, modification, and representation is different in HDFS compared to that of RDBMS. Therefore, the mechanism for Data Protection also varies.

   Workarounds:

   - Data Redaction

The process of enabling Data Redaction for Hive can be performed using CDH Manager (Cloudera Distribution Hadoop Manager). For more information, see the section Sensitive Data Redaction in the Cloudera Security Guide.

- Right to Forget

The Right to Forget feature enhancement is planned for future releases. However, prior to loading in the Hive instance, Anonymization of Party PII data can be done at the source. This process provides the flexibility to secure the PII information, and in addition, to drop the PII upon a request from the Party.

2. Mappers are supported using AM/HM screens in OFSDF (RDBMS). However, development of the underlying functionality for AM/HM feature in OFSDF Hive is planned for future releases. Therefore, the Mappers will be supported during future releases.

   Workaround:

   The Views defined on these Mappers in RDBMS are converted to Tables in Hive. Therefore, these Mappers must be loaded manually:

   - MAP_BAL_CAT_STD_BAL_CAT
   - MAP_CRDLN_PUR_STD_CRDLN_PUR
   - MAP_CRDLN_TYP_STD_CRDLN_TYP
   - MAP_CREDIT_SCR_MDL_REG_MDL_DDL
   - MAP_CREDIT_SCR_MDL_REG_MDL_VWI
   - MAP_DIM_IRC_STD_IRC
   - MAP_DIM_LOB_STD_LOB
   - MAP_GL_CODE_REP_LINE
   - MAP_MITG_TYP_STD_MITGN_TYP
   - MAP_PARTY_TYP_STD_PARTY_TYP
   - MAP_PROD_CODE_STD_PROD_TYPE
   - MAP_DIM_GL_ACCT_STD_GL_TYPE
   - MAP_VEHCL_TYP_STD_VEHCL_TYP
   - MAP_RECVR_TYP_STD_RECVR_TYP
   - MAP_WRTOFF_STD_WRTOFF_REASN

3. Data is not populated in the target table FSI_INTRA_COMPANY_ACCOUNT.

   Workaround:

   FSI_REG_LEGAL_ENTITY_HIER load references POP_REG_LE_HIER DT, which is not supported in OFSDF Hive. FSI_REG_LEGAL_ENTITY_HIER must be loaded to make use of the T2T for

FSI_REG_LEGAL_ENTITY_HIER because that T2T consists of an inner join on FSI_REG_LEGAL_ENTITY_HIER.

Similarly, Dimension tables for Unsupported SCDs must be loaded to make use of the T2Ts that reference them.

4. In Hive, the exchange rates population for cross currencies is not being derived using exchange rates values for a base currency.

   Workaround:

   Source the corresponding Exchange Rate value.

5. When performing Big Data installation for OFSDF Hive, the following error is logged in the file

   OFS_BFND_installation.log:

   Error:ORA-00942: table or view does not exist

   ORA-06512: at "<Atomic_Schema_Name>.FSI_CREATE_SEQUENCE", line 6

   Workaround:

   This error can be ignored.

9.2.4 List of Supported SCDs and T2Ts

This section provides the list of supported SCDs and T2Ts for OFSDF Hive (Staging and Results on Hive deployment process).

9.2.4.1 List of Supported SCDs

The SCDs for Hive used in Data Foundation solutions are listed in the Oracle Financial Services Data Foundation for Hive - SCD Metadata for Hive spreadsheet under Technical Metadata for FSDF HIVE 8.0.7.0.0.

9.2.4.2 Run Enabled T2Ts

To execute SOURCED_RUN and EXE_RUN in Run Management, follow these steps:

1. Navigate to the Run Management section. Select the required Run (SOURCED_RUN or EXE_RUN) to execute.
2. Select all required values.
3. Save the batch.
4. Query DIM_RUN in Metadom. Copy the resultant entry and insert in the DIM_RUN table of Datadom.
5. In the Batch Execution screen, execute Run.

9.2.4.3 List of Supported T2Ts

The T2Ts for Hive used in Data Foundation solutions are listed in the Oracle Financial Services Data Foundation for Hive - Technical Metadata (Staging Source) spreadsheet under Technical Metadata for FSDF HIVE 8.0.7.0.0.

9.2.4.4 List of Unsupported SCDs and T2Ts

This section provides the list of unsupported SCDs and T2Ts for OFSDF Hive (Staging and Results on Hive deployment process).

9.2.4.5 List of Unsupported SCDs

This is the list of unsupported SCDs with corresponding Map Reference Numbers, for OFSDF Hive (Staging and Results on Hive deployment process):

- SCD-126
- SCD-127
- SCD-128
- SCD-129
- SCD-131
- SCD-132
- SCD-195
- SCD-196
- SCD-205
- SCD-208
- SCD-267
- SCD-270
- SCD-332
- SCD-465

> **NOTE** Hierarchies are supported using AM/HM screens in OFSDF (RDBMS). However, development of the underlying functionality for AM/HM feature in OFSDF Hive is planned for future releases. As a result, the tables REV_BIHIER and REV_LOCALE_HIER will be available in Hive, when the Hierarchies will be supported during future releases.

9.2.4.6 List of Unsupported T2Ts

This is the list of unsupported T2Ts for OFSDF Hive (Staging and Results on Hive deployment process):

- T2T_FCT_PARTY_EMPLOYMENT_DETAILS
- T2T_FCT_COMMON_CUSTOMER
- T2T_FSI_EXCHANGE_RATES
- T2T_FCT_ACCT_RECOVERY_DETAILS
- T2T_FCT_ACCT_WRITE_OFF_DETAILS
- T2T_FCT_CARDS_SUMMARY
- T2T_FCT_CREDIT_PARTCPN_TRNCH_DETL
- T2T_FCT_FIXED_ASSETS
- T2T_FCT_FUND_CIS_COMPOSITION
- T2T_FCT_HEDGE_PORTFL_SET_ACCT_MAP
- T2T_FCT_LITIGATION_DETAILS
- T2T_FCT_LOANS_SERVICED
- T2T_FCT_MERCHANT_BANKING
- T2T_FCT_PAYMENTS_SUMMARY
- T2T_FCT_SPEND_OBLIGATIONS
- T2T_FFSIS_STG_MUTUAL_FUNDS
- T2T_FFSIS_STG_RETIREMENT_ACCOUNTS
- T2T_FFSIS_STG_TD_CONTRACTS
- T2T_FFSIS_STG_TRUSTS
- T2T_FLAS_STG_LEASES_CONTRACTS
- T2T_FLAS_STG_LOAN_CONTRACTS
- T2T_FLAS_STG_OD_ACCOUNTS
- T2T_FCT_FORECAST_REG_CAP_SUMMARY
- T2T_FCT_MITIGANT_REG_CAPITAL
- T2T_FCT_MR_CAPITAL_SUMMARY_FMRCC
- T2T_FCT_MR_CAPITAL_SUMMARY_FMREQC
- T2T_FCT_MR_CAPITAL_SUMMARY_FMRFRXC
- T2T_FCT_MR_CAPITAL_SUMMARY_FMRIRC
- T2T_FCT_MR_VAR_PORTFOLIO_SUMMARY
- T2T_FCT_MR_VAR_SUMMARY
- T2T_FCT_REG_ACCT_MITIGANT_MAPPING

- T2T_FCT_REG_CAP_PARTY_GRP_MMBR_MAP
- T2T_FCT_REG_CAP_PLCD_COLL_SUMMARY
- T2T_FCT_REG_CAP_POOL_SUMMARY
- T2T_FCT_REG_CP_CAPITAL_SUMMARY
- T2T_FCT_REG_LARGE_EXP_CP_LIMITS
- T2T_FCT_REG_LE_CAPITAL_SUMMARY
- T2T_FCT_REG_MARKET_RISK_EXPOSURES
- T2T_FCT_REG_OR_CAPITAL_SUMMARY
- T2T_FCT_REG_POOL_MITIGANT_MAP
- T2T_FCT_REG_SEC_POOL_SUMMARY
- T2T_FRCAS_FCT_NON_SEC_EXPOSURES
- T2T_FRCAS_FCT_NON_SEC_EXPOSURES_CHILD
- T2T_FRCAS_FCT_NON_SEC_EXPOSURES_PARENT
- T2T_FRCAS_FCT_SEC_EXPOSURES
- T2T_FRCAS_FCT_SEC_EXPOSURES_CHILD
- T2T_FRCAS_FCT_SEC_EXPOSURES_PARENT
- T2T_FRCCS_FCT_CCP_DETAILS
- T2T_FCT_LRM_ACCOUNT_SUMMARY
- T2T_FDB_STG_BORROWINGS
- T2T_FDB_STG_CASA
- T2T_FDB_STG_TD_CONTRACTS
- T2T_FFSIS_STG_CASA
- T2T_FFSIS_STG_CUSTODIAL_ACCOUNTS
- T2T_FFSIS_STG_INVESTMENTS
- T2T_FFSIS_STG_MANAGED_INV_ADV

9.2.5 Executing Run through Run Management for Hive

To load data in OFSDF Hive, use Solo or Consolidated run execution in Run Management. For detailed information, see the chapter Executing Run through Run Management.

10 Account Dimension Population

This chapter provides information about Account Dimension Loading Process in the Oracle Financial Services Data Foundation application.

This chapter includes the following topics:

10.1 Overview of Account Dimension

The SCD population in DIM_ACCOUNT table generates individual numeric Surrogate Keys for every account number with an additional leg skey. Below are the columns that will be loaded during SCD population:

- V_ACCOUNT_NUMBER
- N_ACCT_SKEY
- N_RCV_LEG_ACCT_SKEY
- FIC_MIS_DATE
- V_PRODUCT_PROCESSOR_NAME
- V_ORIGINAL_ACCOUNT_NUMBER
- F_LATEST_RECORD_INDICATOR
- V_APPLN_NUMBER
- V_CCY_CODE

10.2 Overview of Account Dimension Population

SCD seeded definitions are provided for loading data into the target table Account Dimension (DIM_ACCOUNT):

Table 22: Table to Table Seeded Definitions

MAP REFERENCE NO.	SOURCE VIEW NAME
188	STG_ANNUITY_CONTRACTS_V
189	STG_BILLS_CONTRACTS_V

MAP REFERENCE NO.	SOURCE VIEW NAME
190	STG_BORROWING_V
191	STG_CARDS_V
192	STG_CASA_V
193	STG_COMMITMENT_CONTRACTS_V
194	STG_CREDIT_DERIVATIVES_V
195	STG_FUTURES_V
196	STG_FX_CONTRACTS_V
197	STG_GUARANTEES_V
198	STG_INVESTMENTS_V
199	STG_LC_CONTRACTS_V
200	STG_LEASES_CONTRACTS_V
201	STG_LOAN_CONTRACTS_V
202	STG_MM_CONTRACTS_V
203	STG_MUTUAL_FUNDS_V
204	STG_OD_ACCOUNTS_V
205	STG_OPTION_CONTRACTS_V
206	STG_REPO_CONTRACTS_V
207	STG_RETIREMENT_ACCOUNTS_V
208	STG_SWAPS_CONTRACTS_V
209	STG_TD_CONTRACTS_V
210	STG_TRUSTS_V
211	STG_ISTISNA_V
212	STG_IJARAH_V
213	STG_MUDARABAH_V
214	STG_MURABAHAH_V
215	STG_MUSHARAKAH_V
216	STG_SALAM_V
217	STG_SUKUK_V

MAP REFERENCE NO.	SOURCE VIEW NAME
262	STG_BORROWING_COMMITMENTS_V
263	STG_CORRESPONDENT_ACCOUNT_V
264	STG_TRADING_ACCOUNT_V
341	STG_PAYMENT_SETTLEMENT_ACCT_V
349	STG_COMMODITIES_V
350	STG_CUSTODIAL_ACCOUNTS_V
351	STG_MANAGED_INV_ADV_V
352	STG_MERCHANT_BANKING_V
353	STG_PREPAID_CARDS_V
354	STG_SPEND_OBLIGATIONS_V
400	STG_MERCHANT_CARDS_V
465	STG_FORWARDS_V
467	STG_ASSETS_SOLD_V
494	STG_CREDIT_PARTCPN_DETAILS_V

All the above-mentioned Product Processor tables are mutually exclusive in terms of functionality. Therefore, V_ACCOUNT_NUMBER or V_CONTRACT_CODE (Primary Key of each Product Processor) must also have mutually exclusive values across all the 40 tables. The same account number cannot be part of multiple Product Processor tables.

10.3 Executing the Account Dimension SCD

Batch FSDFINFO_DATA_FOUNDATION_SCD has been introduced with 40 tasks under it.

These 40 tasks represent the 40 SCD processes where different product processors would be the source and DIM_ACCOUNT would be the target. MAP_REF_NUMs 188 to 217, 262 to 264, 341, 349 to 354, 400, 465, 467 have been introduced into SYS_TBL_MASTER table, and subsequently into SYS_STG_JOIN_MASTER.

Depending on the requirement by an application, a task can be excluded or included from the batch execution.

- SCD execution occurs based on the GAAP code which is configured in SETUP_MASTER table. This has been introduced to tackle the scenario of multiple GAAP codes. Whether or not there exist multiple GAAP codes, SETUP_MASTER should be manually configured as follows:

- All the tasks can be executed in parallel. This might cause the N_RCV_LEG_ACCT_SKEY to have an incremental value as compared to N_ACCT_SKEY.

> **NOTE** By default, FSDF installer will seed the following entry into SETUP_MASTER.

Table 23: Configuration

V_COMPONENT_ CODE	V_COMPONENT_DESC	V_COMPONENT_VALUE
DEFAULT_GAAP	DEFAULT_GAAP	USGAAP

For all other GAAP codes, we need to update SETUP_MASTER manually before running DIM_ACCOUNT SCD.

10.3.1.1 Handle Multiple GAAP Codes for Same Account Number for the Same MIS Date in SCD

When multiple GAAP codes exist for the same account number for the same MIS date, configure the SETUP_MASTER table manually as mentioned in the preceding section:

V_COMPONENT_VALUE will hold the GAAP code for which the SCD is to be executed.

If there are different GAAP codes for two distinct account numbers for the same MIS date, then the SCD has to be executed for each GAAP code by changing the V_COMPONENT_VALUE manually in setup_master table. The SETUP_MASTER table should have only one record WHERE V_COMPONENT_DESC = 'DEFAULT_GAAP'.

10.3.1.2 Handle Multiple Load Runs for Same Account Number for the Same MIS Date in SCD

When multiple Load Runs exist for the same account number for the same MIS date, ensure FSI_ACCOUNT_LOAD_RUN_MAP is populated with Account Numbers having Latest Load Run Flag = Y. For further details, please refer Loading Multiple Load Runs in OFSAA.

11 Customer Dimension Population

This chapter provides information about Customer Dimension Loading Process in the Oracle Financial Services Data Foundation application.

This chapter includes the following topics:

11.1 Customer Dimension Loading Overview

The Customer Dimension populates DIM_CUSTOMER table by generating individual numeric Surrogate Keys for every customer reference code. This table will be used in Reporting by joining with other results tables.

11.2 Customer Dimension Population using Stage Party Master Entity

The Customer Dimension can be populated from Stage Party Master Entity using the SCD packaged in FSDF with map ref number 335.

11.2.1 Prerequisites

- STG_PARTY_MASTER should be loaded with all records which are required
- STG_PARTY_ROLE_MAP should be loaded with all customer records and Party Role should be 'CUSTOMER'

11.3 Customer Dimension Population using Stage Customer Master Entity

The Customer Dimension can be populated from Stage Customer Master Entity using the SCD packaged in FSDF with map ref number 32.

11.3.1 Prerequisites

- STG_CUSTOMER_MASTER should be loaded with all records which are required

11.4 Execution of Customer Dimension Population Batch

11.4.1 For Party Master Flow

Customer Dimension SCD from Party Master can be executed by executing task present in the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

11.4.1.1 Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

11.4.2 For Customer Master Flow

Customer Dimension SCD from Customer Master can be executed by executing task present in the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDFINFO_DATA_FOUNDATION_SCD.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

11.4.2.1 Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

> **NOTE** Following are the two customer based dimensions that are used across various OFSAA applications for their processing and reporting requirements:

- DIM_PARTY
- DIM_CUSTOMER

In the earlier releases, both the dimensions sourced data from separate staging tables i.e. STG_PARTY_MASTER and STG_CUSTOMER_MASTER respectively. This design however enforced the population of customer data in both staging tables.

To address bug - Bug 20486362 - SCD TO POPULATE DIM_CUSTOMER FROM STG_PARTY_MASTER TO BE ADDED, a new SCD (MAP_REF_NUM = 335) was introduced in FSDF release 8.0.1.0.0 to load DIM_CUSTOMER using STG_PARTY_MASTER and STG_PARTY_ROLE_MAP as the source. Customers, who use applications that have a dependence on DIM_PARTY, are advised to use this SCD instead of SCD, 32. Execute batch DIM_CUSTOMER_SCD_PARTY to populate DIM_CUSTOMER using STG_PARTY_MASTER and STG_PARTY_ROLE_MAP as the source. SCD, 32 will be deprecated in a future release. There are two flows available for DIM_CUSTOMER population. Only one need to be executed accordingly. Following are the two flows:

- Customer Dimension Populating using Customer Master
- Customer Dimension Populating using Party Master

12 Loading Multiple Load Runs in OFSAA

This chapter provides information about Loading Multiple Load Runs in OFSAA in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview
- Objective
- Design Details
- Implementation
- Loading OFSAA Staging Tables
- Post Stage Load Process
- Loading Data into OFSAA Results Tables from Staging Tables

12.1 Overview

Multiple load run enables data to be loaded multiple times during the day for staggered processing of data by analytical applications. The degree of complexity of data required by analytical apps vary from one to the other, the load run ensures that the customer can process the data as soon as it is ready for an app to uptake. This reduces the turnaround time to reporting, by avoiding the 'end of day' type of processing of information as part of the original design.

NOTE As a work around, currently you can use the following methods to load the results table using different Load Run IDs.

12.2 Objective

1. To optimize the end-to-end data flow and the need for intra-day reporting, institutions could load intra-day records into OFSAA. Current application can only handle one set of records per date (incremental loads are not possible).
2. Users need to adjust and reload data (either full or partial) for the current date.
3. Users need to adjust and reload data (either full or partial) for any of past dates.
4. Support incremental consumption of data from staging area.

> **NOTE** The load run is enabled only in the model and is '0' by default in the model. This does not impact data previously available. The enhancements to the OFSAA batch and run framework to cover all the use cases will be taken in a future release.

FSDF 8.0.7 staging model provides a flexibility to load multiple snapshots of the data in the staging tables (Product Processors). A column named n_load_run_id is introduced as part of the primary key of the product processor tables to enable this feature. However, the full fledged functionality to load and manage these snapshots will be part of the platform release at a later stage. In order to leverage this design in 8.0 release, the below mentioned changes

should be performed as a workaround to load multiple snapshot of data from staging to results tables such as Fact Common Account Summary.

For Loading multiple snapshots of data for the same FIC_MIS_DATE, the existing T2T's should be executed through the Run Rule Framework . Additionally, the load should be filtered accordingly for each load run via the run filter.

To execute this run:

1. Navigate to $FIC_HOME/ficweb/webroot/conf
2. Edit the file: excludeURLList.cfg
3. Add the following entry at the end of the file: [SQLIA]./pr2

> **NOTE** There should not be any blank line in the file.

12.3 Design Details

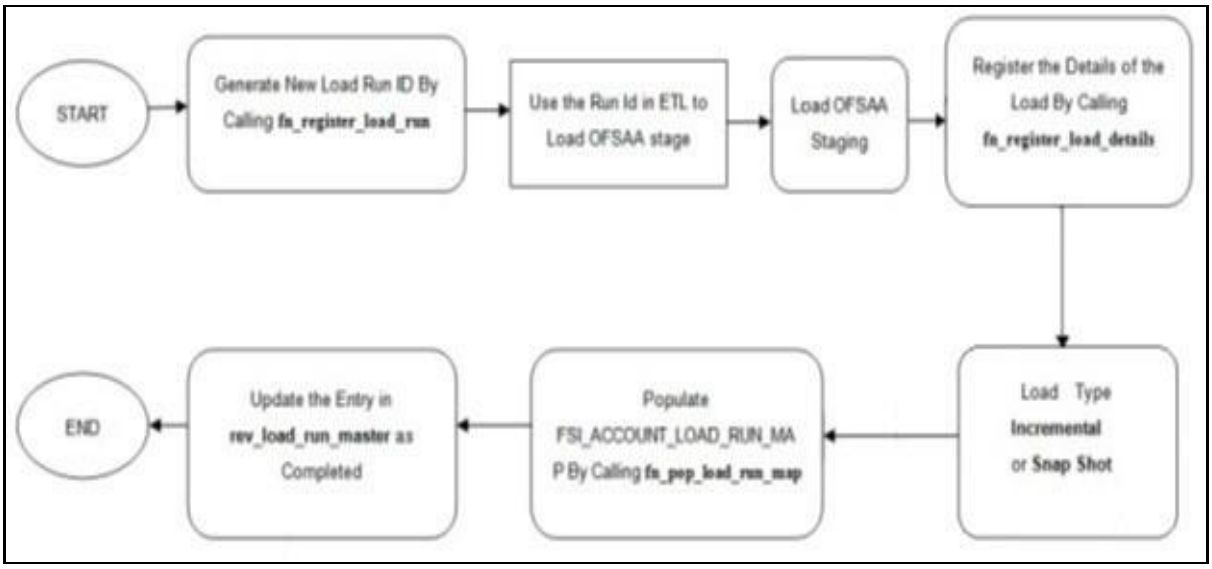
Loading of data into OFSAA can be in any of the following ways:

- ETL Tool
- OFSAA F2T
- OFSAA T2T
- OFSAA Excel upload
- OFSAA DIH

OFSAA data model includes load run identifier as part of the primary key for a set of staging tables. This enables data to be stored for multiple load runs for any date. OFSAA data model also has a table to maintain master information about load run and can be used for identifying/filtering load run during run execution within OFSAA.

12.4 Implementation

Before loading data into the staging table, you should generate a Load Run Identifier to stamp the records from the source. These records could be a complete snapshot or could be partial/incremental data too. This load run identifier can be generated by calling the function in the OFSAA atomic schema named fn_register_load_run. The function expects some input parameters and returns a unique load run identifier back to the calling program.



NOTE Column n_load_run_id should always be populated only by the value returned by fn_register_load_run.

Function - Register Load Run (fn_register_load_run)

Parameters - Batch ID, MIS-Date, Load Run Name, Load Run Purpose, Load Run Type

PARAMETERS	SOURCE OF VALUES	EXAMPLE VALUES
Batch ID	Auto generated if you are using OFSAA Framework	OFSBFNDIN- FO_20150101_1
MIS-Date	Input from Customer	01/01/2015
Load Run Name	Input from Customer	Daily EOD Load
Load Run Purpose	Input from Customer	BA/BS (Basel Advanced Approach, Basel Standard)
Load Run Type	Input from Customer	B - Base, A - Adjustments, P- Backdated Adjustments

Example:

Declare

Result number;

Begin

Result: = fn_register_load_run ('OFSBFNDINFO_20150101_1','20150101','FSDF_LOAD','BA', 'A');

End;

The function registers the request in the table name rev_load_run_master and marks load as "In progress". You can use columns LOAD_RUN_NAME and LOAD_PURPOSE as per the requirement.

Column Load Type must have only the permissible value such as:

- "B - Base
- "A - Adjustments
- "P- Backdated Adjustments

LOAD_RUN_ID	MIS_DATE	LOAD_TYPE	LOAD_PURPOSE	START_DT_TIME	LOAD_RUN_NAME	BATCH_ID	LOAD_RUN_STATUS
1	01-JAN-15	A	BA	01-JAN-15	FSDF_Load	OFSBFNDIN-FO_20150101 01 _1	In Progress

NOTE Multiple calls to the procedure can be made to the function for given FIC_MIS_DATE. Each call will return a number which will be unique across the FIC_MIS_DATE/Extraction date. You can use this load identifier to load either one or more staging tables.

12.5 Loading OFSAA Staging Tables

After the load run ID is generated as described above, you can use the same in external ETL process to stamp the records from the source system before them loading either in one or the multiple staging tables of OFSAA Staging area.

Load strategy at a customer site falls across two categories:

- Complete Snapshot
- Incremental Snapshot

12.5.1 Complete Snapshot Load Example

For example, if we have three Loan Contract accounts in a bank system which is supposed to be loaded into OFSAA Stage Loan Contracts using the Load Run ID = 1 for Basel Standard Approach, the data after loading staging table will appear as below:

FIC_MIS_DATE	V_ACCOUNT_NUMBER	V_GAAP_CODE	N_LOAD_RUN_ID	N_EOP_BAL
01-JAN-15	LOAN1000	USGAAP	1	4066.213
01-JAN-15	LOAN1001	USGAAP	1	34538.905
01-JAN-15	LOAN1002	USGAAP	1	667.357

NOTE After each load you need to run fn_register_load_details function mentioned in Post Stage Load Process and Updating Load as Completed which is explained in the following sections.

In order to enable downstream applications to consume only the latest set of record, you need to call another function named fn_pop_load_run_map. This is mandatory in case of incremental snapshot load scenario. This function populates a intermediate processing table that keep track of latest incoming record identifier.

Function - Populate Load Run Map

Parameters - Batch Id, MIS Date, Stage Table Name, Load Run Id, Load Run Name

PARAMETERS	SOURCE OF VALUES	EXAMPLE VALUES
Batch ID	Auto generated if you are using OFSAA Framework	OFSBFNDIN- FO_20150101_1
MIS-Date	Input from Customer	01/01/2015
Stage Table Name	Input from Customer	STG_CASA
Load Run ID	Input from Customer	1
Load Run Name,	Input from Customer	FSDF_Load

Example

Declare

Result number;

Begin

Result: = fn_pop_load_run_map('OFSBFNDINFO_20150101_1','20150101','STG_CASA',1,'FSDF

_LOAD');

END;

> **NOTE** For troubleshooting any errors while making the function calls , refer to fsi_message_log table for more details.

For the example mentioned above, records in FSI_ACCOUNT_LOAD_RUN_MAP table will appear as below:

FIC_MIS_DATE	V_ACCOUNT_NUMBER	V_GAAP_CODE	N_LOAD_RUN_ID	F_LATEST_LOAD_RUN_FL AG
1-Jan-15	LOAN1000	USGAAP	1	Y
1-Jan-15	LOAN1001	USGAAP	1	N
1-Jan-15	LOAN1002	USGAAP	1	N
1-Jan-15	LOAN1001	USGAAP	2	Y
1-Jan-15	LOAN1002	USGAAP	2	Y
1-Jan-15	LOAN1000	USGAAP	2	Y

There may be a requirement to reload a complete snapshot of data in the OFSAA staging again. This could either be to satisfy a intraday reporting requirement, or to load corrected source records in the OFSAA staging table. The earlier design forced users to truncate staging table to accommodate the new set of date. However with the introduction of Load Run identifier concept , you can retain both set of data in the staging area and allow the downstream application choose the correct set for processing. This will involve making another call to fn_register_load_run function.

For example in the below table, LOAN1001 and LOAN1002 have some changes since the previous load and will now need be loaded again staging with a different load run identifier . Additionally, strategy is to load the complete snapshot again to staging, all the records from the source such as, both changed and unchanged records will need to stamped with the new load run identifier

STG_LOAN_CONTRACTS after load will appear as below:

FIC_MIS_DATE	V_ACCOUNT_NUMBER	V_GAAP_CODE	N_LOAD_RUN_ID	N_EOP_BAL
01-JAN-15	LOAN1000	USGAAP	1	4066.213
01-JAN-15	LOAN1001	USGAAP	1	34538.905
01-JAN-15	LOAN1002	USGAAP	1	667.357
01-JAN-15	LOAN1000	USGAAP	2	4066.213
01-JAN-15	LOAN1001	USGAAP	2	34540.000
01-JAN-15	LOAN1002	USGAAP	2	670.000

REV_LOAD_RUN_MASTER after second function call will appear as below:

LOAD_RUN_ID	MIS_DATE	LOAD_TYPE	LOAD_PURPOSE	START_DT_TIME	LOAD_RUN_NAME	BATCH_ID	LOAD_RUN_STATUS
1	01-JAN-15	B	BA	01-JAN-15 13:00 PM	FSDF_Load	OFSBFND-INFO_20150 101_1	Complete
2	01-JAN-15	B	BA	01-JAN-15 23:00 PM	Loan Correc-tions	OFSBFND-INFO_20150 101_2	In Progress

Following tables require full snapshot mandatorily:

1. STAGE ACCOUNT WRITE OFF DETAILS
2. STAGE ACCOUNT RECOVERY DETAILS
3. STAGE PARTY RATING DETAILS
4. STAGE INSTRUMENT RATING DETAILS
5. STAGE ACCOUNT RATING DETAILS

If the source system is unable to provide snapshots on a daily basis due to certain limitations, we can customise the T2Ts, and prepare the snapshot data out of incremental data. Data Loading scenarios are as follows to prepare the snapshot data set:

1. Day 1: Load full snapshot data as part of day 1 load to the Staging area and process the same to Results area.
2. Day 2: Receive incremental data in the Staging area and process the same to Results area.

3. Day 2: Create a customised T2T to copy the previous day data from results table excluding the records that are no more part of the load, for which you have received data as part of today's incremental load, and reload the same to results table with Current Date Surrogate key and Run Surrogate key.

Day 2 steps should be followed for subsequent loads.

12.5.2 Incremental Snapshot Load Example

This scenario is applicable when source may to portions of data at different point in time, or handover only the records changed since the last load. This is contrary to example explained under the Complete snapshot load section.

The same scenario in case of incremental snapshot load will appear as below.

> **NOTE** Only the changed source records are stamped with the new load run identifer

FIC_MIS_DATE	V_ACCOUNT_NUMBER	V_GAAP_CODE	N_LOAD_RUN_ID	N_EOP_BAL
01-JAN-15	LOAN1000	USGAAP	1	4066.213
01-JAN-15	LOAN1001	USGAAP	1	34538.905
01-JAN-15	LOAN1002	USGAAP	1	667.357
01-JAN-15	LOAN1001	USGAAP	2	34540.000
01-JAN-15	LOAN1002	USGAAP	2	670.000

> **NOTE** After each load you need to run fn_register_load_details function mentioned in Post Stage Load Process and Updating Load as Completed which is explained in the following sections

In order to enable downstream applications to consume only the latest set of record, you need to call another function named fn_pop_load_run_map. This is mandatory in case of incremental snapshot load scenario. This function populates a intermediate processing table that keep track of latest incoming record identifier.

Function - Populate Load Run Map

Parameters - Batch Id, MIS Date, Stage Table Name, Load Run Id, Load Run Name

PARAMETERS	SOURCE OF VALUES	EXAMPLE VALUES
Batch ID	Auto generated if you are using OFSAA Framework	OFSBFNDIN- FO_20150101_1
MIS-Date	Input from Customer	01/01/2015
Stage Table Name	Input from Customer	STG_CASA
Load Run ID	Input from Customer	1
Load Run Name,	Input from Customer	FSDF_Load

12.5.2.1.1 Example

Declare

Result number;

Begin

Result: = fn_pop_load_run_map('OFSBFNDINFO_20150101_1','20150101','STG_CASA',1,'FSDF_LOAD');

END;

> **NOTE** For troubleshooting any errors while making the function calls , refer to fsi_message_log table for more details.

For the example mentioned above, records in FSI_ACCOUNT_LOAD_RUN_MAP table will appear as below:

FIC_MIS_DATE	V_ACCOUNT_NUMBER	V_GAAP_CODE	N_LOAD_RUN_ID	F_LATEST_LOAD_RUN_FL AG
1-Jan-15	LOAN1000	USGAAP	1	Y
1-Jan-15	LOAN1001	USGAAP	1	N
1-Jan-15	LOAN1002	USGAAP	1	N
1-Jan-15	LOAN1001	USGAAP	2	Y
1-Jan-15	LOAN1002	USGAAP	2	Y

12.6 Post Stage Load Process

Once you load the OFSAA Stage tables successfully using the load run ID which is generated from Load Run Map function, you need to perform certain post load processes in order to complete the loading.

12.6.1 Register Load Run Details

Once you load the OFSAA Stage tables successfully using the load run ID which is generated from Load Run Map function, you need to register the load run details by calling the following function with the load type whether it was incremental or full snap shot.

Function - Register Load Run Details

Parameters - batch id, mis-date, load run name, load run id, stage table name, load type

PARAMETERS	SOURCE OF VALUES	EXAMPLE VALUES
Batch ID	Auto generated if you are using OFSAA Framework	OFSBFNDIN- FO_20150101_1
MIS-Date	Input from Customer	01/01/2015
Stage Table Name	Input from Customer	STG_CASA
Load_Run_Id	Input from Customer	1
Load Run Name,	Input from Customer	FSDF_Load
Load Type	Input from Customer	S - Full Snap Shot I - Incremental

Example:

Declare

Result number;

Begin

Result: =

fn_register_load_details('OFSBFNDINFO_20150101_1','20150101', 'STG_CASA',1,'FSDF_LOAD', 'I');

END;

This function populates a table named rev_load_run_details. The columns load type can have only 2 values, such as:

- "S - Complete/Full Snapshot

- "I - Incremental Snapshot

LOAD_RUN_ID	MIS_DATE	STAGE_TABLE_NAME	LOAD_TYPE
1	1-Jan-15	STG_LOAN_CONTRACTS	I

12.6.2 Updating Load as Completed

Once you complete these steps, update the status of the record inside rev_load_run_master as Completed.

UPDATE rev_load_run_master

SET LOAD_RUN_STATUS = 'Completed' WHERE pMis_Date = '01-Jan-15'

AND pLoad_Run_Name = 'FSDF_LOAD' and LOAD_RUN_ID = 1 ;

12.7 Loading data into OFSAA Results Tables from Staging Tables

OFSAAI does not support load run versioning for Data Movement from Stage to Results using Batch/Run Framework. The same feature is expected as an enhancement in future release of AAI.

As a work around, currently you can use the following methods to load the results table using different Load Run IDs

12.7.1 Complete Snapshot Load Scenario

To enable the Data Load into Results table from staging using the Load Run concept in case of Full Snap Shot, You can use the following Task Level Parameter in the T2T Filter condition and can pass the load run id to be passed in Batch Framework or Run Framework

For example: FCAS T2T for Stage Loan Contracts

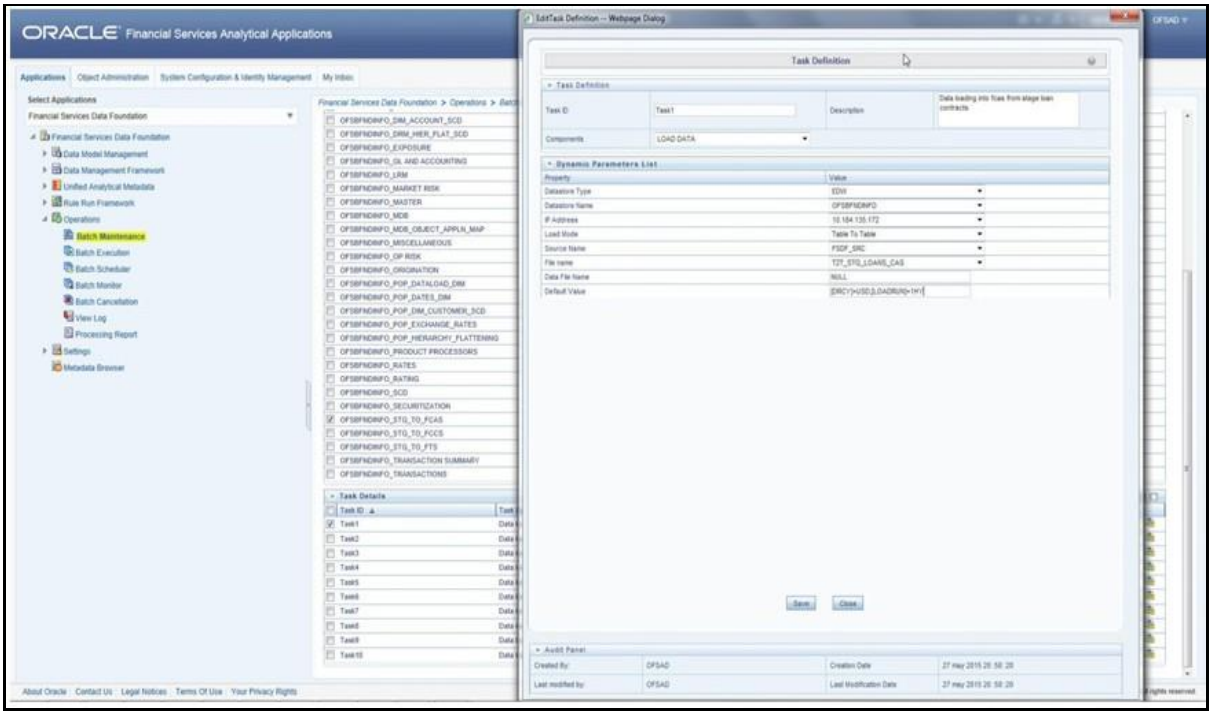
- "Modify Filter Condition inside T2T:

Filter Conidtion to be used in T2T: The highlighted condition required to be added in T2T

Filter : UPPER(STG_LOAN_CONTRACTS.v_gaap_code)='USGAAP' AND STG_LOAN_CONTRACTS.fic_mis_date=$MISDATE AND STG_LOAN_CONTRACTS.N_LOAD_RUN_ID='[LOADRUN]'

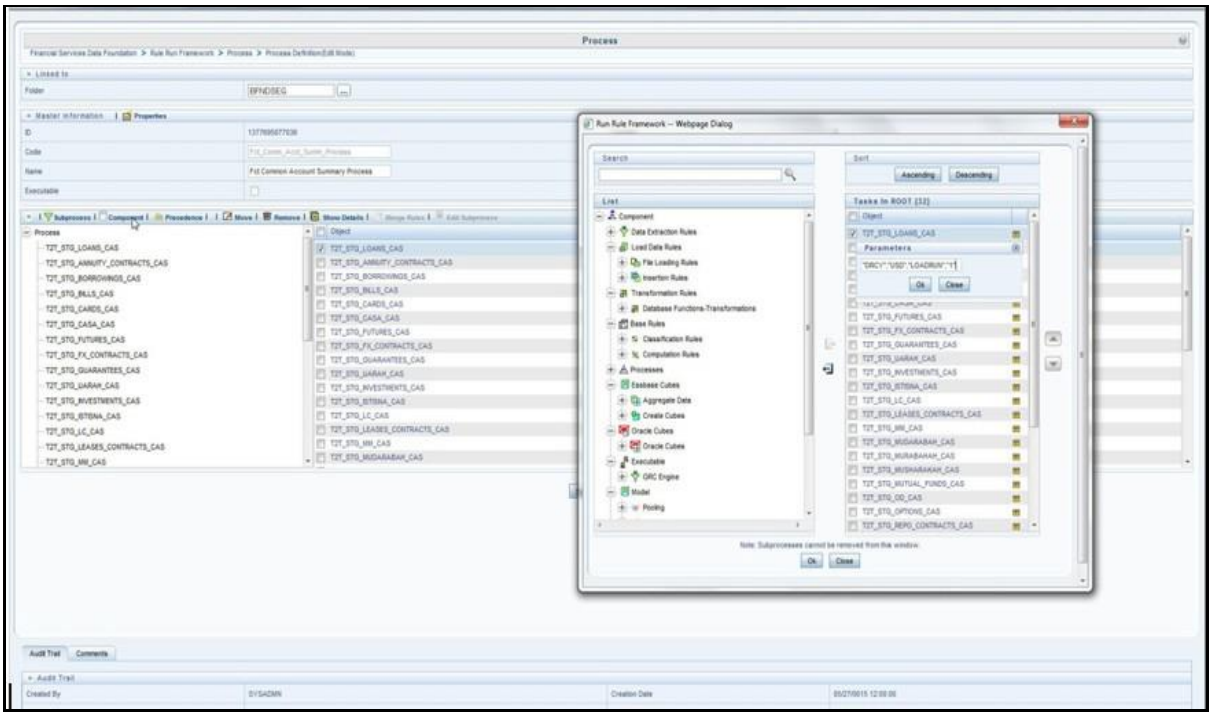
- "Modify the Corresponding Batch Task Each Time with Load Run Idxxx
  - **a.** Select Batch, Task (T2T_STG_LOANS_CAS)
  - **b.** Click Edit.
  - **c.** Add Highlighted Condition in Default Value and Save (Each Time we need to provide the Load Run ID which are supposed to use. Here in the below example we are using 1)

[DRCY]=USD,[LOADRUN]=1



Execute the batch after this change; it will load the Result table with the given Load Run Id Records Modify the Corresponding Process Task of a Run Each Time with Load Run Id

1. Select Process, Click Edit
2. Choose the Components, Select the Object (T2T_STG_LOANS_CAS) and Click Components
3. Click theYellow Drop Button near the T2T
4. Add the Highlighted Condition with the text, and Save : "DRCY","USD","LOADRUN","1"



Fire the Run after this change. It loads the Result table with the given Load Run ID Records.

12.7.2 Incremental Load Scenario

To enable the Data Load into Results table from staging using the Load Run concept in case of incremental load, You can use the following T2T join change concept in the T2T ANSI join and can use the Batch Framework or Run Framework to execute the same

For example, FCAS T2T for Stage CASA Modify Join Condition inside T2T:

```
Join Condition to be added in all relevant T2T For example, STG_CASA T2T join

INNER JOIN FSI_ACCOUNT_LOAD_RUN_MAP

ON FSI_ACCOUNT_LOAD_RUN_MAP.V_ACCOUNT_NUMBER = STG_CASA.V_ACCOUNT_NUMBER

AND FSI_ACCOUNT_LOAD_RUN_MAP.N_LOAD_RUN_ID = STG_CASA.N_LOAD_RUN_ID AND
FSI_ACCOUNT_LOAD_RUN_MAP.FIC_MIS_DATE = STG_CASA.FIC_MIS_DATE AND
FSI_ACCOUNT_LOAD_RUN_MAP.V_GAAP_CODE = STG_CASA.V_GAAP_CODE

AND FSI_ACCOUNT_LOAD_RUN_MAP.F_LATEST_LOAD_RUN_FLAG = 'Y'
```

Execute the batch / fire the Run after the above step.

13 Exchange Rates Population

This chapter provides information about Exchange Rates Population in the Oracle Finanacial Services Data Foundation Application and step-by step instructions to use this section.

This chapter includes the following topics:

- Overview of Exchange Rates Table
- Overview of Exchange Rates Population
- Handling Alternate Currency
- Execution of Currency Exchange Rates Population T2T

13.1 Overview of Exchange Rates Table

Exchange Rates Table is loaded from a view VW_FSI_RATE_TRIANGULATION which is created on top of Stage table STG_EXCHANGE_RATE_HIST using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

In an integrated environment, there may be a Scenario where customer is using two applications and each of the applications refer to STG_FORWARD_EXCHG_RATES or STG_EXCHANGE_RATE_HIST.

In that case, the customer may be faced with duplicate data loads into these two tables. For this scenario, following is the recommendation:

- STG_EXCHANGE_RATE_HIST will take precedence over STG_FORWARD_EXCHG_RATES for Dataload
- The implementation team shall make sure that the T2T for STG_EXCHANGE_RATE_HIST dataload will be used
- From STG_EXCHANGE_RATE_HIST the FSI_EXCHANGE_RATES TABLE will be loaded

13.2 Overview of Exchange Rates Population

Table to Table seeded definition is provided for loading data into the target table Exchange Rates (FSI_EXCHANGE_RATES):

Table 24: Table to Table Seeded Definitions

SL. NO.	SOURCE VIEW NAME	T2T DEFINITION NAME
1	VW_FSI_RATE_TRIANGULATION	T2T_FSI_EXCHANGE_RATES

13.3 Handling Alternate Currency

Exchange rates are provided by the customers as download. The applications may require the information in different format, the current exchange rate population has been enhanced to store the following variations.

- Inverse Rate – When the exchange rate information of two currencies are provided for a base and a counter currency, the inverse rates if not available is derived and populated.
- Triangulation Rate – When exchange rate information of two pairs are available as part of download, with a common currency in each of the pair, exchange rate for currencies not common as part of the download pair is derived and populated.

13.4 Multiple Execution of T2T in Run Chart

The batch FSDF_SOURCED_RUN is used to populate fsi_exchange_rates with RUN Skey defaulted to -1.

> **NOTE** These exchange rates are used for populating those FSDF Results tables which do not have any RUN SKEY. FSDF Source Run is used for populating these results tables using the exchange rates which were populated against Run Skey -1.

The T2T is also a part of Seeded Run Financial Services Data Foundation Execution Run. While executing through Run, the RUN Skey is auto-generated and stamped against each record. The FSDF Results tables that have a valid Run Skey in their primary key are a part of this run. The exchange rates which were populated against each Run Skey are used populating the results area of the same Run Skey.

> **NOTE** The T2T for Exchange Rates are part of Run Chart Twice.

1. Through a Batch (Will insert Run Skey as -1 in Exchange Rates Table).
2. Through a Run (Will insert Run Skey as actual Run Skey in Exchange Rates Table).

FCT_COMMON_ACCOUNT_SUMMARY is not a Run Enabled Table, hence the join is with -1, whereas FCT_REG_ACCOUNT_SUMMARY is Run Enabled Table hence the join is with Actual Run Skey.

So All T2Ts which are part of FSDF_EXE_RUN will use the exchange rate with actual Run Skey, other T2Ts will use -1.

13.5 Execution of Currency Exchange Rates Population T2T

13.5.1 Execution through Batch

The batch FSDF_SOURCED_RUN needs to be executed to populate fsi_exchange_rates as the entries in setup_master are seeded during installation.

> **NOTE** FSI_EXCHANGE_RATES table has to be loaded prior loading any other Results tables. While executing throughbatch, the RUN Skey will be defaulted to -1.

13.5.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run . The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUN Skey will be auto-generated and stamped against each record.

Currency Execution Rates - Batch Execution

A seeded batch, FSDF_SOURCED_RUN must be executed for the required MIS Date. Alternatively, following steps will help you create a new batch:

1. From the Home menu, click Operations and select Batch Maintenance.
2. Click New Batch ('+' symbol in Batch Name container). Enter the Batch Name and Description.
3. Click Save.
4. Click the check box in the Batch Name container to select the Batch, you created in the earlier step.
5. Enter the Task ID and Description.
6. Select Load Data from the Components list.
7. Select the following from the Dynamic Parameters List:
8. Datastore Type - Select the appropriate datastore from the list.
9. Datastore Name - Select the appropriate name from the list.
10. IP address - Select the IP address from the list.
11. Load Mode - Select Table to Table from the list.
12. Source Name - Select <T2T Source Name> from the list.

13. File Name - Select the T2T name for the source stage channel table you want to process.
14. Click Save.

Data file name will be blank for any Table to Table Load mode. Default value refers to currency calculation. If there is any need for currency conversion in T2T transactions, Default value has to be provided.

Execute the batch created in the preceding steps.

14 Account Summary Population

This chapter provides information about Account Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Account Summary Tables
- Overview of Account Summary Population
- Executing the Account Summary Population T2T
- Checking the Execution Status
- Account Summary T2Ts

14.1 Overview of Account Summary Tables

Account Summary tables are loaded from the staging product processor tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

Customer account level data from the Oracle Financial Services Analytical Applications (OFSAA) staging product processor tables must be consolidated into a standardized relational Business Intelligence (BI) data model. This consolidation is done to have all the staging product processor table data in a single Fact table. The Account Summary table data can be used for building cubes which allow rollup of data for a dimension or a combination of dimensions. This relational BI model consists of the following vertically partitioned Account Summary tables that are organized by application subject area.

- FCT_CRM_ACCOUNT_SUMMARY
- FCT_PFT_ACCOUNT_SUMMARY
- FCT_FTP_ACCOUNT_SUMMARY
- FCT_REG_CAP_ACCOUNT_SUMMARY
- FCT_ECO_CAPITAL_ACCOUNT_SUMMARY

The preceding Account Summary tables are part of data model but there are no seeded T2T definitions available to populate these tables. T2T processes must be custom configured to populate these tables to use measures defined on these tables for reporting.

14.2 Overview of Account Summary Population

Table to Table seeded definitions are provided for loading data into the target table Fct Common Account Summary (FCT_COMMON_ACCOUNT_SUMMARY):

Table 25: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_ANNUITY_CONTRACTS	T2T_STG_ANNUITY_CONTRACTS_CAS
2	STG_BILLS_CONTRACTS	T2T_STG_BILLS_CAS
3	STG_BORROWING_COMMITMENTS	T2T_STG_BORROWING_COMMITMENTS_CAS
4	STG_BORROWINGS	T2T_STG_BORROWINGS_CAS
5	STG_CARDS	T2T_STG_CARDS_CAS
6	STG_CASA	T2T_STG_CASA_CAS
7	STG_COMMITMENT_CONTRACTS	T2T_STG_COMMITMENT_CONTRACTS_CAS
8	STG_CORRESPONDENT_ACCOUNT	T2T_STG_CORRESPONDENT_ACCOUNT_CAS
9	STG_CREDIT_DERIVATIVES	T2T_STG_CREDIT_DERIVATIVES_CAS
10	STG_FUTURES	T2T_STG_FUTURES_CAS
11	STG_FX_CONTRACTS	T2T_STG_FX_CONTRACTS_CAS
12	STG_GUARANTEES	T2T_STG_GUARANTEES_CAS
13	STG_IJARAH	T2T_STG_IJARAH_CAS
14	STG_INVESTMENTS	T2T_STG_INVESTMENTS_CAS
15	STG_ISTISNA	T2T_STG_ISTISNA_CAS
16	STG_LC_CONTRACTS	T2T_STG_LC_CAS
17	STG_LEASES_CONTRACTS	T2T_STG_LEASES_CONTRACTS_CAS
18	STG_LOAN_CONTRACTS	T2T_STG_LOANS_CAS
19	STG_MM_CONTRACTS	T2T_STG_MM_CAS
20	STG_MUDARABAH	T2T_STG_MUDARABAH_CAS
21	STG_MURABAHAH	T2T_STG_MURABAHAH_CAS

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
22	STG_MUSHARAKAH	T2T_STG_MUSHARAKAH_CAS
23	STG_MUTUAL_FUNDS	T2T_STG_MUTUAL_FUNDS_CAS
24	STG_OD_ACCOUNTS	T2T_STG_OD_CAS
25	STG_OPTION_CONTRACTS	T2T_STG_OPTIONS_CAS
26	STG_REPO_CONTRACTS	T2T_STG_REPO_CONTRACTS_CAS
27	STG_RETIREMENT_ACCOUNTS	T2T_STG_RETIREMENT_ACCOUNTS_CAS
28	STG_SALAM	T2T_STG_SALAM_CAS
29	STG_SUKUK	T2T_STG_SUKUK_CAS
30	STG_SWAPS_CONTRACTS	T2T_STG_SWAPS_CONTRACTS_CAS
31	STG_TD_CONTRACTS	T2T_STG_TD_CONTRACTS_CAS
32	STG_TRUSTS	T2T_STG_TRUSTS_CAS
33	STG_COMMODITIES	T2T_STG_COMMODITIES_CAS
34	STG_CUSTODIAL_ACCOUNTS	T2T_STG_CUSTODIAL_ACCOUNTS_CAS
35	STG_MANAGED_INV_ADV	T2T_STG_MANAGED_INV_ADV_CAS
36	STG_PREPAID_CARDS	T2T_STG_PREPAID_CARDS_CAS
37	STG_TRADING_ACCOUNT	T2T_STG_TRADING_ACCOUNT_CAS

14.3 Executing the Account Summary Population T2T

14.3.1 Executing through Batch

Fact Common Account Summary table has to be loaded prior loading any of the other Account Summary tables. You can execute the T2T component from OFSAA Infrastructure ICC framework (accessed through the application Batch Operations screen).

NOTE Before executing Account Summary Population T2Ts, we need to manually configure the setup_master table with required GAAP_CODEs. For an account we can load only one GAAP_CODE to Fact Common Account Summary. By default, FSDF installer will seed the following entry into SETUP_MASTER.While executing through batch, the RUN Skey will be defaulted to -1.

14.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executig through Run, the RUN Skey will be autogenerated and stamped against each record.

Table 26: Configuration

V_COMPONENT_ CODE	V_COMPONENT_DESC	V_COMPONENT_VALUE
DEFAULT_GAAP	DEFAULT_GAAP	USGAAP

For all other GAAP codes, we need to update SETUP_MASTER manually before running each Account Summary Population T2Ts.

14.3.2.1 Fact Common Account Summary - Batch Execution

A seeded batch, FSDF_SOURCED_RUN has to be executed for the required MIS Date. Alternatively, following steps will help you create a new batch:

1. From the Home menu, click Operations and select Batch Maintenance.
2. Click New Batch ('+' symbol in Batch Name container). Enter the Batch Name and Description.
3. Click Save.
4. Click the check box in the Batch Name container to select the Batch, you created in the earlier step.
5. Enter the Task ID and Description.
6. Select Load Data from the Components list.
7. Select the following from the Dynamic Parameters List:
   - Datastore Type - Select the appropriate datastore from the list.
   - Datastore Name - Select the appropriate name from the list.
   - IP address - Select the IP address from the list.
   - Load Mode - Select Table to Table from the list.
   - Source Name - Select <T2T Source Name> from the list.
   - File Name - Select the T2T name for the source stage channel table you want to process.
8. Click Save.
   - Data file name will be blank for any Table to Table Load mode.

- Default value refers to currency calculation. If there is any need for currency conversion in T2T transactions, Default value has to be provided.
- For example, default value is [DRCY]='USD' Here 'USD' acts as reporting currency parameter to T2T.

9. Repeat steps 4 to 8 for adding the remaining T2Ts within the same batch definition.
10. Execute the batch created in the preceding steps.

14.3.2.2 Fact Common Account Summary - Run Execution

Alternatively, Stage Common Account Summary can be executed through Run Rule Framework. Following steps will help you create a new batch:

1. From the Home menu, click Rules Framework and select Process.
2. Select Fct_Comm_Acct_Summ_Process Process and click Edit.
3. Click on Component if you wish to change the Parameter.
4. Select the required T2T and click on the Yellow Drop Down Button. Repeat as many as T2Ts need to be changed.
5. Update the Parameter Value and click OK. For example, default value is "DRCY","USD". Here 'USD' acts as reporting currency parameters to T2T.
6. Save the Process, and click Save.
7. Click NO in the Dialogue Box as we need to save it as the same version.
8. Close the Dialogue Box.
9. Open the RUN menu from Rules Frame Work.
10. Select Comm Acc Summ Load Run and click on Fire Run button.
11. Select the Create & Execute Option from Batch Menu and select the required MIS Date.
12. Click OK to execute the RUN.
13. It will show the Batch execution is in Progress Dialogue. Close the Dialogue Box.
14. Click Batch Progressing Report from Operations menu, and note down the Batch Run ID.
15. Click on Batch Monitor from Operations menu.
16. Type the noted Run Id in Batch ID Like Column and click on Search Button.
17. Select the respective batch, Select Information Date and Batch Run ID from Batch Details tab and click on Start Monitoring Button.
18. Check the Status of Each Task in the Run.

14.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S – Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. The error log table in atomic schema is: FCT_COMMON_ACCOUNT_SUMMARY$

14.5 Account Summary T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

15 Customer Summary Population

This chapter provides information about Customer Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Common Customer Summary Tables
- Prerequisites
- Executing the Customer Summary Population T2T

15.1 Overview of Common Customer Summary Tables

Fact Common Customer Summary table stores attributes pertaining to customer related data on an 'as-is' basis received from the source system. Data is populated into this table using T2T. Customer balances are derived from account summary. Customer relationship table drives the relationship between accounts and customers. Common customer summary data is populated for all the active customers in customer dimension.

15.2 Prerequisites

Following are the lists of tables used in the population of Fact Common Customer Summary and these tables are required to be loaded prior to running the T2T:

- DIM_CUSTOMER
- DIM_BANDS
- DIM_EDUCATION
- DIM_CUSTOMER_TYPE
- DIM_GENDER
- DIM_INDUSTRY
- DIM_CHANNEL
- DIM_GEOGRAPHY
- DIM_MARITAL_STATUS
- DIM_MANAGEMENT
- DIM_PROFESSION
- DIM_CREDIT_RATING

- DIM_VINTAGE
- DIM_MIGRATION_REASONS
- FCT_COMMON_ACCOUNT_SUMMARY
- FCT_LIMITS_SUMMARY
- STG_CUSTOMER_DETAILS
- STG_PARTY_RATING_DETAILS
- STG_PARTY_FINANCIALS

Dimensions tables are loaded through the SCD process. The fact tables FCT_COMMON_ACCOUNT_SUMMAY is loaded from the respective T2T processes.

15.2.1 Executing the Customer Summary Population T2T

15.2.1.1 Execution through Batch

Fact Common Customer Summary T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** While executing through batch, the RUN Skey will be defaulted to -1.

15.2.1.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUN Skey will be autogenerated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation: This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

16 Fact Transaction Summary

This chapter provides information about Fact Transaction Summary in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

The Fact Transaction Summary stores data from the stage transactions table for further operation reporting. The data is moved through a T2T process from stage to fact, which ensures that the stage data is available in a single table in the result area.

This chapter includes the following topics:

- Table to Table
- Executing the Fact Transaction Summary

16.1 Table to Table

Table to Table seeded definitions are provided for loading data into target table Fct Transaction Summary (FCT_TRANSACTION_SUMMARY)

Table 27: Table to Table Seeded Dimensions

SL NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_ANNUITY_TXNS	T2T_STG_ANNUITY_TXNS_FTS
2	STG_BILL_CONTRACTS_TXNS	T2T_STG_BILL_CONTRACTS_TXNS_FTS
3	STG_BORROWING_COMMITMENT_ TXNS	T2T_STG_BORROWING_COMMITMENT_ TXNS_FTS
4	STG_BORROWINGS_TXNS	T2T_STG_BORROWINGS_TXNS_FTS
5	STG_CARDS_PAYMENT_TXNS	T2T_STG_CARDS_PAYMENT_TXNS_FTS
6	STG_CARDS_SETTLEMENT_TXNS	T2T_STG_CARDS_SETTLEMENT_TXNS_ FTS
7	STG_CASA_TXNS	T2T_STG_CASA_TXNS_FTS
8	STG_COMMITMENT_CONTRACT_T XNS	T2T_STG_COMMITMENT_CONTRACT_T XNS_FTS
9	STG_CORRESPONDENT_ACCT_TXN S	T2T_STG_CORRESPONDENT_ACCT_TX NS_FTS

SL NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
10	STG_CREDIT_DERIVATIVES_TXNS	T2T_STG_CREDIT_DERIVATIVES_TXNS _FTS
11	STG_FOREX_TXNS	T2T_STG_FOREX_TXNS_FTS
12	STG_FUTURES_TXNS	T2T_STG_FUTURES_TXNS_FTS
13	STG_GUARANTEES_TXNS	T2T_STG_GUARANTEES_TXNS_FTS
14	STG_IJARAH_TXNS	T2T_STG_IJARAH_TXNS_FTS
15	STG_INVESTMENT_TXNS	T2T_STG_INVESTMENT_TXNS_FTS
16	STG_ISTISNA_TXNS	T2T_STG_ISTISNA_TXNS_FTS
17	STG_LC_TXNS	T2T_STG_LC_TXNS_FTS
18	STG_LEASES_TXNS	T2T_STG_LEASES_TXNS_FTS
19	STG_LOAN_CONTRACT_TXNS	T2T_STG_LOAN_CONTRACT_TXNS_FTS
20	STG_MM_TXNS	T2T_STG_MM_TXNS_FTS
21	STG_MUDARABAH_TXNS	T2T_STG_MUDARABAH_TXNS_FTS
22	STG_MURABAHAH_TXNS	T2T_STG_MURABAHAH_TXNS_FTS
23	STG_MUSHARAKAH_TXNS	T2T_STG_MUSHARAKAH_TXNS_FTS
24	STG_MUTUAL_FUNDS_TXNS	T2T_STG_MUTUAL_FUNDS_TXNS_FTS
25	STG_OD_ACCOUNTS_TXNS	T2T_STG_OD_ACCOUNTS_TXNS_FTS
26	STG_OPTION_CONTRACTS_TXNS	T2T_STG_OPTION_CONTRACTS_TXNS_ FTS
27	STG_RETIREMENT_ACCOUNTS_TX NS	T2T_STG_RETIREMENT_ACCOUNTS_TX NS_FTS
28	STG_SALAM_TXNS	T2T_STG_SALAM_TXNS_FTS
29	STG_SUKUK_TXNS	T2T_STG_SUKUK_TXNS_FTS
30	STG_SWAP_ACCOUNT_TXNS	T2T_STG_SWAP_ACCOUNT_TXNS_FTS
31	STG_TERMDEPOSITS_TXNS	T2T_STG_TERMDEPOSITS_TXNS_FTS
32	STG_TRADING_ACCOUNT_TXNS	T2T_STG_TRADING_ACCOUNT_TXNS_F TS
33	STG_TRUSTS_TXNS	T2T_STG_TRUSTS_TXNS_FTS
34	STG_COMMODITIES_TXNS	T2T_STG_COMMODITIES_TXNS_FTS

SL NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
35	STG_CUSTODIAN_ACCOUNT_TXNS	T2T_STG_CUSTODIAN_ACCOUNT_TXNS_FTS
36	STG_PREPAID_CARDS_TXNS	T2T_STG_PREPAID_CARDS_TXNS_FTS
37	STG_REPO_TRANSACTIONS	T2T_STG_REPO_TRANSACTIONS_FTS
38	STG_FORWARDS_TXNS	T2T_STG_FORWARDS_TXNS_FTS

16.2 Executing the Fact Transaction Summary

16.2.1 Execution through Batch

A seeded batch, FSDF_SOURCED_RUN has to be executed for the required MIS Date. Alternatively, following steps will help you create a new batch:

1. From the Home menu, click Operations and select Batch Maintenance.
2. Click New Batch ('+' symbol in Batch Name container). Enter the Batch Name and Description.
3. Click Save
4. Click the check box in the Batch Name container to select the Batch, you created in the earlier step.
5. Enter the Task ID and Description.
6. Select Load Data from the Components list.
7. Select the following from the Dynamic Parameters List:
   - Data Store Type
   - Datastore Name - Select the appropriate name from the list.
   - IP address - Select the IP address from the list.• Load Mode - Select Table to Table from the list.
   - Source Name - Select <T2T Source Name> from the list.
   - File Name - Select the T2T name for the source stage channel table you want to process.
8. Click Save.

   Data file name will be blank for any Table to Table Load mode.

   Default value refers to currency calculation. If there is any need for currency conversion in T2T transactions, Default value has to be provided.

   For example, default value is [DRCY]='USD' Here 'USD' acts as reporting currency parameter to T2T.
9. Repeat steps 4 to 8 for adding the remaining T2Ts within the same batch definition.

10. Execute the batch created in the preceding steps.

> **NOTE** While executing through batch, the RUN Skey will be defaulted to -1.

16.2.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUNSkey will be auto-generated and stamped against each record

17 Loan Account Summary Population

This chapter provides information about Loan Account Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Loan Account Summary Tables
- Overview of Loan Account Summary Population
- Executing the Loan Account Summary Population T2T
- Checking the Execution Status
- Loan Account Summary T2Ts

17.1 Overview of Loan Account Summary Tables

Loan Account Summary table is loaded from the staging product processor tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

The Fact Loan Account Summary stores data from the Stage Loan Contracts, Stage Leases Contracts and Stage OD Accounts for further operation and regulatory reporting.

17.2 Overview of Loan Account Summary Population

Table to Table seeded definitions are provided for loading data into the target table Fct Loan Account Summary (FCT_LOAN_ACCOUNT_SUMMARY):

Table 28: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_LEASES_CONTRACTS	T2T_FLAS_STG_LEASES_CONTRACTS
2	STG_LOAN_CONTRACTS	T2T_FLAS_STG_LOAN_CONTRACTS
3	STG_OD_ACCOUNTS	T2T_FLAS_STG_OD_ACCOUNTS

17.3 Executing the Loan Account Summary Population T2T

17.3.1 Execution through Batch

Fact Loan Account Summary T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** While executing through batch, the RUN Skey will be defaulted to -1.

17.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

17.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen. For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. The error log table in atomic schema is: FCT_LOAN_ACCOUNT_SUMMARY$.

17.5 Loan Account Summary T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

18 Deposit Borrowings Summary Population

This chapter provides information about Deposit Borrowings Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Deposit Borrowings Summary Tables
- Overview of Deposit Borrowings Summary Population
- Executing the Deposit Borrowings Summary Population T2T
- Checking the Execution Status
- Deposit Borrowings Summary T2Ts

18.1 Overview of Deposit Borrowings Summary Tables

Deposit Borrowings Summary table is loaded from the staging product processor tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

The Fact Deposit Summary stores data from the Stage Borrowings, Stage CASA and Stage TD Contracts for further operation and regulatory reporting.

18.2 Overview of Deposit Borrowings Summary Population

Table to Table seeded definitions are provided for loading data into the target table Fct Deposit Summary (FCT_DEPOSITS_BORROWINGS):

Table 29: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_BORROWINGS	T2T_FDB_STG_BORROWINGS
2	STG_CASA	T2T_FDB_STG_CASA
3	STG_TD_CONTRACTS	T2T_FDB_STG_TD_CONTRACTS

18.3 Executing the Deposit Borrwoings Summary Population T2T

18.3.1 Execution through Batch

Fact Deposit Summary T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** When executing through batch, the RUNSkey will be defaulted to -1.

18.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUNSkey will be auto-generated and stamped against each record

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

18.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. The error log table in atomic schema is: FCT_DEPOSITS_BORROWINGS$.

18.5 Deposit Borrowings Summary T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

19 Cards Summary Population

This chapter provides information about Cards Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Cards Summary Tables
- Overview of Cards Summary Population
- Executing the Cards Summary Population T2T
- Checking the Execution Status
- Cards Summary T2Ts

19.1 Overview of Cards Summary Tables

Cards Summary table is loaded from the staging product processor table and Cards Account Mapping table is loaded from respective staging table using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

The Fact Cards Summary stores data from the Stage Cards for further operation and regulatory reporting.

19.2 Overview of Cards Summary Population

Table to Table seeded definitions are provided for loading data into the target tables Fct Cards Summary (FCT_CARDS_SUMMARY) and Fct Cards Account Mapping (FCT_CARD_ACCT_MAPPING):

Table 30: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_CARDS, STG_CARDS_MASTER	T2T_FCT_CARDS_SUMMARY
2	STG_CARD_ACCT_MAPPING	T2T_FCT_CARD_ACCT_MAPPING
3	STG_CARDS_BALANCE_SUMMARY	T2T_FCT_CARDS_BALANCE_SUMMARY

19.3 Executing the Cards Summary Population T2T

19.3.1 Executing through Batch

Fact Cards Summary T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN. Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** While executing through batch, the RUNSkey will be defaulted to -1.

19.3.2 Execution through Run Management

The T2Ts are part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

- T2T_FCT_CARDS_SUMMARY
- T2T_FCT_CARDS_BALANCE_SUMMARY

> **NOTE** While executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

19.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. The error log table in atomic schema are:

- FCT_CARDS_SUMMARY$
- FCT_CARD_ACCT_MAPPING$
- FCT_CARDS_BALANCE_SUMMARY$

19.5 Cards Summary T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

20 Mitigants Results Population

This chapter provides information about Populating Mitigants Results Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Mitigants Results Tables
- Overview of Mitigants Results Population
- Executing the Populating Mitigants Results T2T
- Checking the Execution Status
- Mitigants Results T2Ts

20.1 Overview of Mitigants Results Tables

Mitigants Results Tables are loaded from respective Stage tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores Mitigants Information:

- FCT_MITIGANTS
- FCT_ACCOUNT_MITIGANT_MAP
- FCT_LOAN_SERVICED_MITIGANT_MAP

20.2 Overview of Mitigants Results Population

Table to Table seeded definitions are provided for loading data into the target tables:

20.3 Executing the Populating Mitigants Results T2T

Table 31: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	STG_MITIGANTS	FCT_MITIGANTS	T2T_FCT_MITIGANTS
2	STG_ACCOUNT_MITIGANT_MAP	FCT_ACCOUNT_MITIGANT_MAP	T2T_FCT_ACCOUNT_MITIGANT_MAP

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
3	STG_LOAN_SERVICED_MITIGANT_MAP	FCT_LOAN_SERVICED_MITIGANT_MAP	T2T_FCT_LOAN_SERVICED_MITIGANT_MAP

20.3.1 Executing through Batch

Mitigants Results T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN. Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** While executing through batch, the RUNSkey will be defaulted to -1.

20.3.2 Execution through Run Management

The T2Ts are part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** When executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

20.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. Following are the error log tables in atomic schema:

- FCT_MITIGANTS$
- FCT_ACCOUNT_MITIGANT_MAP$
- FCT_LOAN_SERVICED_MITIGANT_MAP$

20.5 Mitigants Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

21 Fiduciary Services Investment Summary Population

This chapter provides information about Fiduciary Services Investment Summary Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Fiduciary Services Investment Summary Table
- Overview of Fiduciary Services Investment Summary Population
- Executing the Fiduciary Services Investment Summary Population T2T
- Checking the Execution Status
- Fiduciary Services Investment Summary T2Ts

21.1 Overview of Fiduciary Services Investment Summary Table

Fiduciary Services Investment Summary table is loaded from the staging product processor table using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

A fiduciary is responsible for managing the assets of another person, or of a group of people. The fiduciary is expected to manage the assets for the benefit of the customer. The customer can open a trust account that would have the different investments that the person would do. The customer would have different assets under the trust such as Investments, Mututal Funds, CASA, Term Deposit etc. So, in these T2Ts the target table is loaded only with those records which are of fiduciary service type which is identified using Parent Account Number in each Product Processor table.

The Fact Fiduciary Services Investment Summary stores records from the Stage CASA, Stage Custodial Accounts, Stage Investments, Stage Managed Inv Adv, Stage Mutual Funds, Stage Retirement Accounts, Stage TD Contracts and Stage Trusts, that has valid Parent Account Number for further operation and regulatory reporting.

21.2 Overview of Fiduciary Services Investment Summary Population

Table to Table seeded definitions are provided for loading data into the target table Fct Fiduciary Serv Invst Summary (FCT_FIDUCIARY_SERV_INVST_SUMM):

Table 32: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	T2T DEFINITION NAME
1	STG_CASA	T2T_FFSIS_STG_CASA
2	STG_CUSTODIAL_ACCOUNTS	T2T_FFSIS_STG_CUSTODIAL_ACCOUNTS
3	STG_INVESTMENTS	T2T_FFSIS_STG_INVESTMENTS
4	STG_MANAGED_INV_ADV	T2T_FFSIS_STG_MANAGED_INV_ADV
5	STG_MUTUAL_FUNDS	T2T_FFSIS_STG_MUTUAL_FUNDS
6	STG_RETIREMENT_ACCOUNTS	T2T_FFSIS_STG_RETIREMENT_ACCOUNTS
7	STG_TD_CONTRACTS	T2T_FFSIS_STG_TD_CONTRACTS
8	STG_TRUSTS	T2T_FFSIS_STG_TRUSTS

21.3 Executing the Fiduciary Services Investment Summary Population T2T

21.3.1 Executing through Batch Framework

Fact Fiduciary Services Investment Summary T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** When executing through batch, the RUNSkey will be defaulted to -1

21.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** While executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

21.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. The error log table in atomic schema is: FCT_FIDUCIARY_SERV_INVST_SUMM$.

21.5 Fiduciary Services Investment Summary T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

22 Populating Party Attributes

This chapter provides information about Populating various Party Attributes Results Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Party Attributes Results Tables
- Overview of Party Attributes Results Population
- Executing the Populating Party Attributes T2T
- Checking the Execution Status
- Party Attributes Results T2Ts

22.1 Overview of Party Attributes Results Tables

Party Attribute Results Tables are loaded from respective Stage tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores Party Attributes:

- FCT_PARTY_ADDRESS_MAP
- FCT_PARTY_EMAIL_MAP
- FCT_PARTY_PHONE_MAP
- FCT_PARTY_FINANCIAL_DETAIL
- FCT_PARTY_RATING_DETAILS
- FCT_ACCOUNT_RATING_DETAILS
- FCT_CREDIT_SCORE_DETAILS
- FCT_PARTY_DETAILS

22.2 Overview of Party Attributes Results Population

Table to Table seeded definitions are provided for loading data into the target tables:

Table 33: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	STG_PARTY_ADDRESS_MAP	FCT_PARTY_ADDRESS_MAP	T2T_FCT_PARTY_ADDRESS_MAP
2	STG_PARTY_EMAIL_MAP	FCT_PARTY_EMAIL_MAP	T2T_FCT_PARTY_EMAIL_MAP
3	STG_PARTY_PHONE_MAP	FCT_PARTY_PHONE_MAP	T2T_FCT_PARTY_PHONE_MAP
4	STG_PARTY_FINANCIALS	FCT_PARTY_FINANCIAL_DE TAIL	T2T_FCT_PARTY_FINANCIAL_DETAIL
5	STG_PARTY_FINANCIALS	FCT_PARTY_FINANCIALS	T2T_FCT_PARTY_FINANCIALS
6	STG_PARTY_RATING_DETA ILS	FCT_PARTY_RATING_DETAI LS	T2T_FCT_PARTY_RATING_DETAILS
7	STG_ACCOUNT_RATING_DE TAILS	FCT_ACCOUNT_RATING_DE TAILS	T2T_FCT_ACCOUNT_RATING_DETAILS
8	STG_CREDIT_SCORE_DETAI LS	FCT_CREDIT_SCORE_DETAI LS	T2T_FCT_CREDIT_SCORE_DETAILS
9	STG_PARTY_DETAILS	FCT_PARTY_DETAILS	T2T_FCT_PARTY_DETAILS

22.3 Executing the Populating Party Attributes T2T

22.3.1 Executing through Batch Framework

Party Attributes Results T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** When executing through batch, the RUNSkey will be defaulted to -1.

22.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** When executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder.

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

22.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. Following are the error log tables in atomic schema:

- FCT_PARTY_ADDRESS_MAP$
- FCT_PARTY_EMAIL_MAP$
- FCT_PARTY_PHONE_MAP$

- FCT_PARTY_FINANCIAL_DETAIL$
- FCT_PARTY_RATING_DETAILS$
- FCT_ACCOUNT_RATING_DETAILS$
- FCT_CREDIT_SCORE_DETAILS$
- FCT_PARTY_DETAILS$

22.5 Party Attributes Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

23 Placed Collateral Population

This chapter provides information about Populating Placed Collateral Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Placed Collateral Population Tables
- Overview of Placed Collateral Population
- Executing the Placed Collateral Population T2Ts
- Checking the Execution Status
- Placed Collateral Population Results T2Ts

23.1 Overview of Placed Collateral Population Tables

Placed Collateral Population Tables are loaded from respective Stage tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores Placed Collateral Population:

- FCT_PLACED_COLLATERAL
- FCT_ACCT_PLACED_COLL_MAP

23.2 Overview of Placed Collateral Population

Table to Table seeded definitions are provided for loading data into the target tables:

Table 34: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	STG_PLACED_COLLATERAL	FCT_PLACED_COLLATERAL	T2T_FCT_PLACED_COLLATERAL
2	STG_ACCT_PLACED_COLL_M AP	FCT_ACCT_PLACED_COLL_MAP	T2T_FCT_ACCT_PLACED_COLL_MAP

23.3 Executing the Placed Collateral Population T2Ts

23.3.1 Executing through Batch Framework

Placed Collateral Populations T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch FSDF_SOURCED_RUN.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** When executing through batch, the RUNSkey will be defaulted to -1.

23.3.2 Execution through Run Management

The T2T is part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** When executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

23.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. Following are the error log tables in atomic schema:

- FCT_PLACED_COLLATERAL$
- FCT_ACCT_PLACED_COLL_MAP$

23.5 Placed Collateral Population Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

24 Credit Score Model and Probability of Default Model

This chapter provides information about Credit Score Model and Probability of default Model Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Credit Score Model and Probability of Default Model
- Overview of Credit Score Model and Probability of Default Model Population
- Staging Data Expectation for Credit Score Model
- Overview of Mapper for Credit Score Model to Regulatory Credit Score Model
- Maintenance of Mapper for Credit Score Model to Regulatory Credit Score Model
- Loading Mapper Maintenance through Backend
- Executing the Credit Score Model and Probability of Default Model T2Ts
- Checking the Execution Status
- Credit Score Model and Probability of Default Model Population T2Ts

24.1 Overview of Credit Score Model and Probability of Default Model

Credit Score Model and Probability of default Model Tables are loaded from respective Stage tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores Party Attributes:

- FCT_ACCT_CREDIT_SCORE_DETAILS
- FCT_SERV_ACCT_CREDIT_SCORE_DTL
- FCT_PARTY_PD_DETAILS
- FCT_INSTRUMENT_PD_DETAILS

24.2 Overview of Credit Score Model and Probability of Default Model Population

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	STG_ACCT_CREDIT_SCORE_- DETAILS	FCT_ACCT_CREDIT_SCORE_- DETAILS	T2T_FCT_ACCT_CREDIT_SCORE_DETAILS
2	STG_SERV_ACCT_CREDIT_- SCORE_DTL	FCT_SERV_ACCT_CREDIT_- SCORE_DTL	T2T_FCT_SERV_ACCT_CREDIT_SCORE_DTL
3	STG_PARTY_PD_DETAILS	FCT_PARTY_PD_DETAILS	T2T_FCT_PARTY_PD_DETAILS
4	STG_INSTRUMENT_PD_DE- TAILS	FCT_INSTRUMENT_PD_DE- TAILS	T2T_FCT_INSTRUMENT_PD_DETAILS

24.2.1 Staging Data Expectation for Credit Score Model

Stage Account Credit Score Details and Stage Service Account Credit Score Details tables expect data incrementally and not in snapshot mode. For example: Account-1 loaded on Day-1 with Model-1 and Score-1need not be loaded everyday till data gets changed. But Reporting tables: Fact Account Credit Score Details and Fact Service Account Credit Score Details are mapped to reports in snapshot mode. In T2T, latest records available on a daily basis for a given account and model are picked and loaded to the Reporting tables.

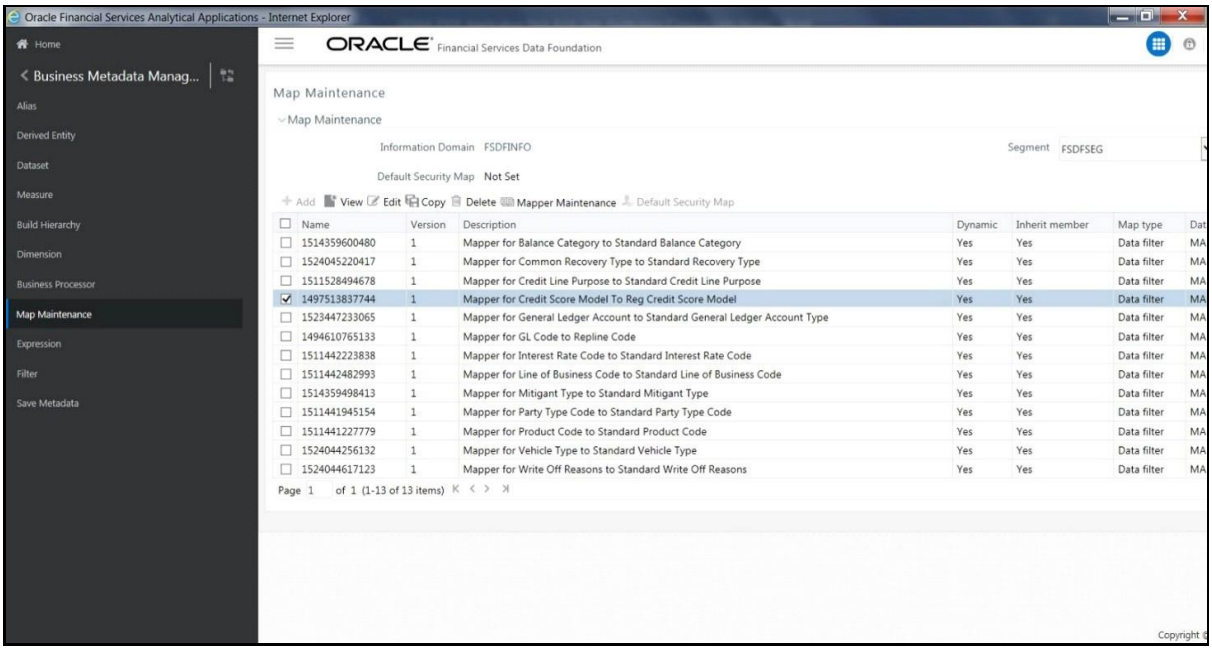
24.3 Overview of Mapper for Credit Score Model to Regulatory Credit Score Model

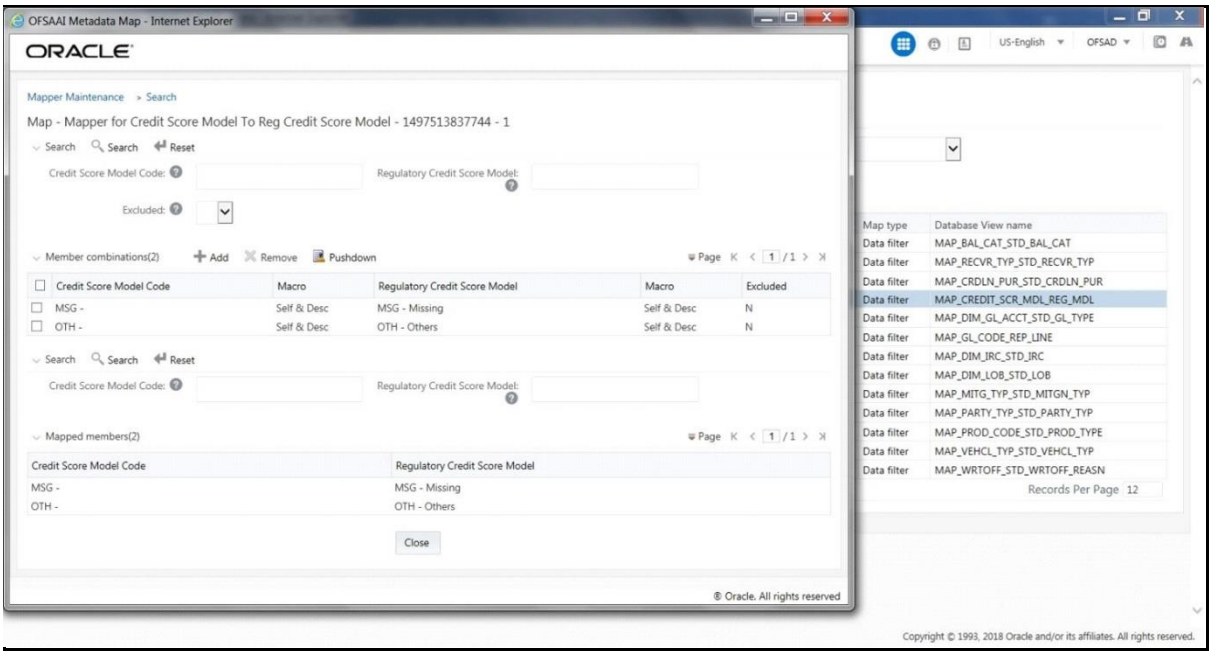
Credit Score Model dimension table is a slowly changing dimension (SCD), which has user-specific values for available credit score models. Regulatory Credit Score Model dimension table is a seeded dimension, which has the reporting specific values for regulatory reporting requirements. There is one column in Fact Account Credit Score Details table and Fact Service Account Credit Score Details, which stores Regulatory Credit Score Model Surrogate key (Skey). This column is populated through a mapper table maintained through Mapper Maintenance Component of OFSAAI.

24.4 Maintenance of Mapper for Credit Score Model to Regulatory Credit Score Model

Mapper can be maintained under OFSAAI.

1. Navigate to OFSAAI > Financial Services data Foundation > Unified Analytical Metadata > Business Metadata Management > Map Maintenance. Select Mapper for Credit Score Model to Regulatory Credit Score Model. Click Mapper Maintenance icon.





FSDF Maps OTH and MSG out-of-the-box for this mapper. The remaining Mappings can be maintaned by the user according to user specific values.

24.4.1 Prerequisites for Mapper Maintenance

1. Load Credit Score Model Dimension using SCD.
2. Resave the following hierarchies:

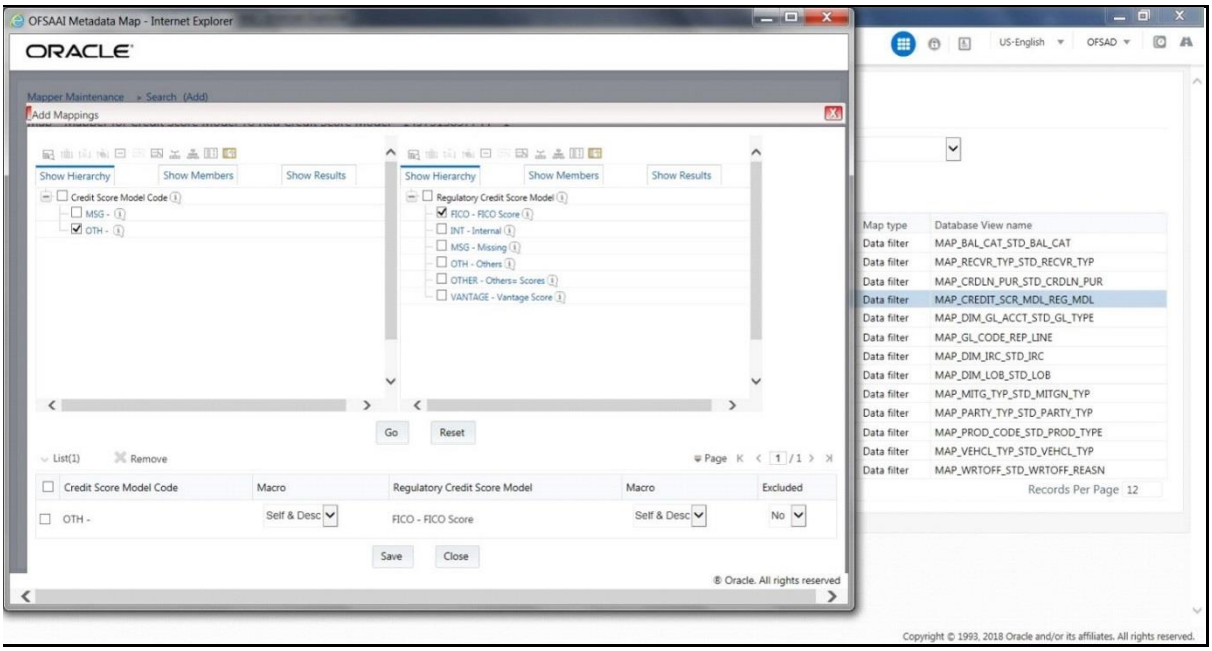
- HSCRMDL1 - Credit Score Model Code
  - HSCRMDL2 - Regulatory Credit Score Model

24.4.2 Possible Mapping Combinations

One Credit Score Model in source can be mapped only to one Regulatory Credit Score Model. One to Many or Many to Many mapping will lead to error in T2T as the records will be duplicated. The possible combinations for Credit Score Model to Regulatory Credit Score Model mapping are One to One and Many to One mappings.

- One to One Mapping: One Credit Score Model can be mapped to one Regulatory Credit Score Model using the Mapper Maintenance screen. Here, you need to select one Credit Score Model and one Regulatory Credit Score Model. This means the corresponding data in Stage Account Credit Score Details Credit Score Model column for the selected Credit Score Model will be loaded into Fact Account Credit Score Details Regulatory Credit Score Model column while loading the T2T.

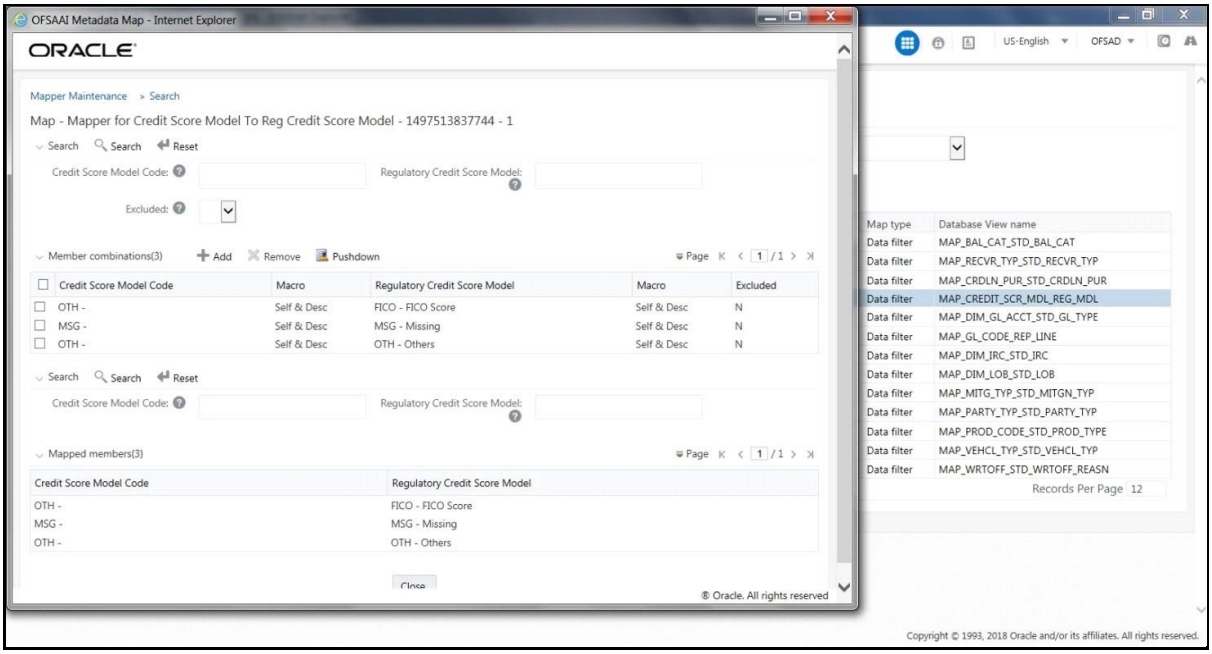
1. In the Mapper Maintenance window, click Add. The Add Mappings pop-up window is displayed.



In this example, OTH - Others is mapped to FICO - FICO Score. To map, click Go and then to save the mapping, click Save.

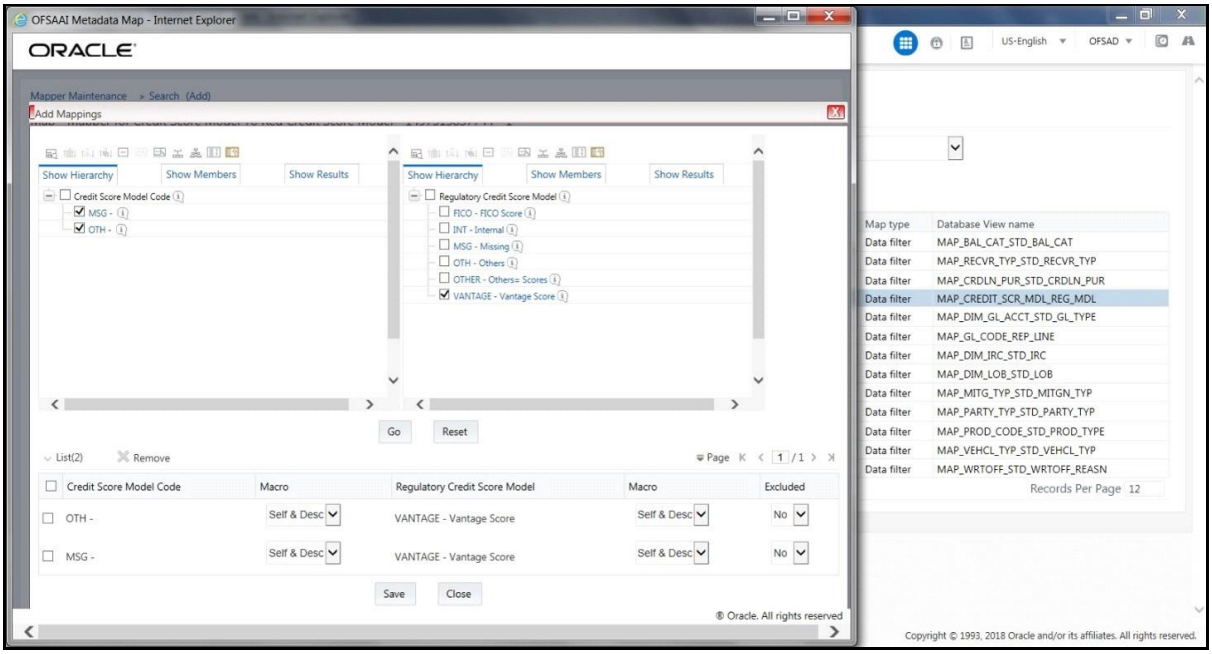
2. An acknowledgement is displayed. Click Yes to confirm.

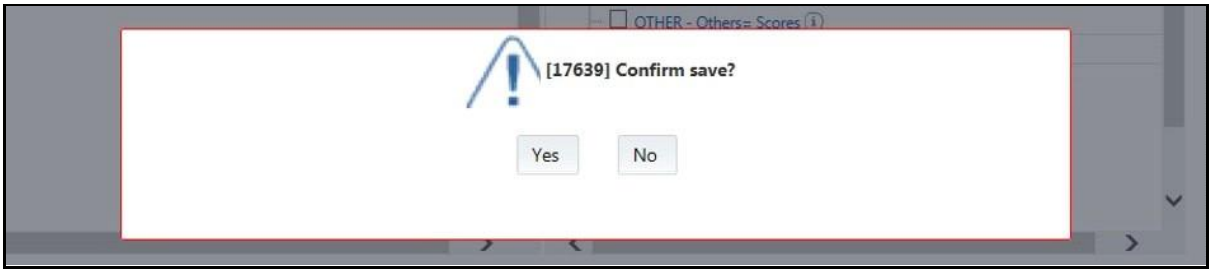
3. The Mapped Members are displayed in the Mapper Maintenance Screen.



- Many to One Mapping: Many Credit Score Models can be mapped to one Regulatory Credit Score Model using the Mapper Maintenance screen. Here, you need to select two or more Credit Score Models and one Regulatory Credit Score Model. This means the corresponding data in Stage Account Credit Score Details Credit Score Model column for the selected Credit Score Models will be loaded into Fact Account Credit Score Details Regulatory Credit Score Model column while loading the T2T.

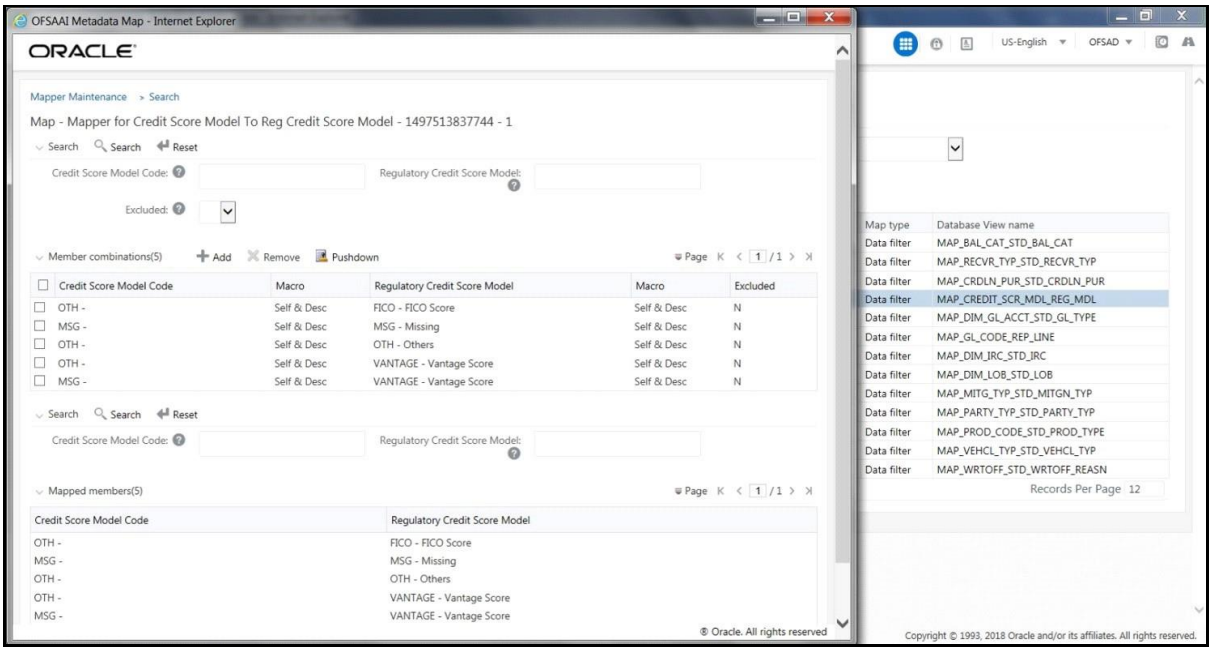
4. In the Mapper Maintenance window, click Add. The Add Mappings pop-up window is displayed.
5. In this example, MSG – Missing and OTH - Others are mapped to VANTAGE - Vantage Score.





To map, click Go and then to save the mapping, click Save. An acknowledgement is displayed. Click Yes to confirm.

6. The Mapped Members are displayed in the Mapper Maintenance Screen.



24.5 Loading Mapper Maintenance through Backend

Load the MAP_CREDIT_SCR_MDL_REG_MDL table in Atomic Schema with V_MAP_ID as 1497513837744, V_MEMBER_1 => Credit Score Model Code (values from DIM_CREDIT_SCORE_MODEL.V_CREDIT_SCORE_MODEL_CODE), V_MEMBER_2 => Regulatory Credit Score Model Code (values from DIM_REG_CREDIT_SCORE_MODEL.V_REG_CREDIT_SCORE_MODEL_CODE).

> **NOTE** These values are actual business key columns and not display codes.

```
SELECT * FROM MAP_CREDIT_SCR_MDL_REG_MDL;
```

	V_MAP_ID	N_MAP_ID	N_INHERIT_MAP_ID	V_MEMBER_1	V_MEMBER_2	V_MEMBER_3	V_MEMBER_4	V_MEMBER_5	V_MEMBER_6	V_MEMBER_7	V_MEMBER_8	V_MEMBER_9
1	1497513837744			VAN	VANTAGE							
2	1497513837744			OTH	OTH							
3	1497513837744			FICO2	FICO							
4	1497513837744			FICO1	FICO							
5	1497513837744			FICO3	FICO							
6	1497513837744			MSG	MSG							

24.6 Executing the Credit Score Model and Probability of Default Model T2Ts

24.6.1 Execution through Run Management

The T2Ts are part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

> **NOTE** When executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

Following are the most common error message which will be logged in the T2T log file present in the **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder:

- Unique Constraint Violation: This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

24.7 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution id. Following are the error log tables in atomic schema:

- FCT_ACCT_CREDIT_SCORE_DETAILS$
- FCT_SERV_ACCT_CREDIT_SCORE_DTL$
- FCT_PARTY_PD_DETAILS$
- FCT_INSTRUMENT_PD_DETAILS$

24.8 Credit Score Model and Probability of Default Model Population T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

25 GL to Management Reporting

This chapter provides information about GL to Management Reporting tables in the Oracle Financial Services Data Foundation application.

This chapter includes these topics:

- Overview of GL to Management Reporting Result Table
- Populating GL to Management Reporting Result Table
- Overview of Mapper for GL to Management Reporting Result Table
- Maintaining Mappers for GL to Management Reporting Result Table
- Loading Mapper Maintenance from Backend
- Executing GL to Management Reporting T2T
- Checking the Execution Status for GL to Management Reporting Result Table
- Generating GL to Management Reporting Result Table in Excel Format

25.1 Overview of GL to Management Reporting Result Table

To load the GL to Management Reporting Result Table, which is the Fact Management Reporting table, from the respective Stage table, use the Table-to-Table (T2T) component and the Map Maintenance component of the Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. The Result table that stores GL to Management Reporting data is:

- FCT_MGMT_REPORTING

25.2 Populating GL to Management Reporting Result Table

To load data into the target table, the Table-to-Table seeded definition is:

SOURCE TABLE NAME	MAPPER TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
STG_GL_DATA	MAP_GL_CODE_REP_LINE	FCT_MGMT_REPORTING	T2T_FCT_MGMT_REPORTING_STG_GL_DATA

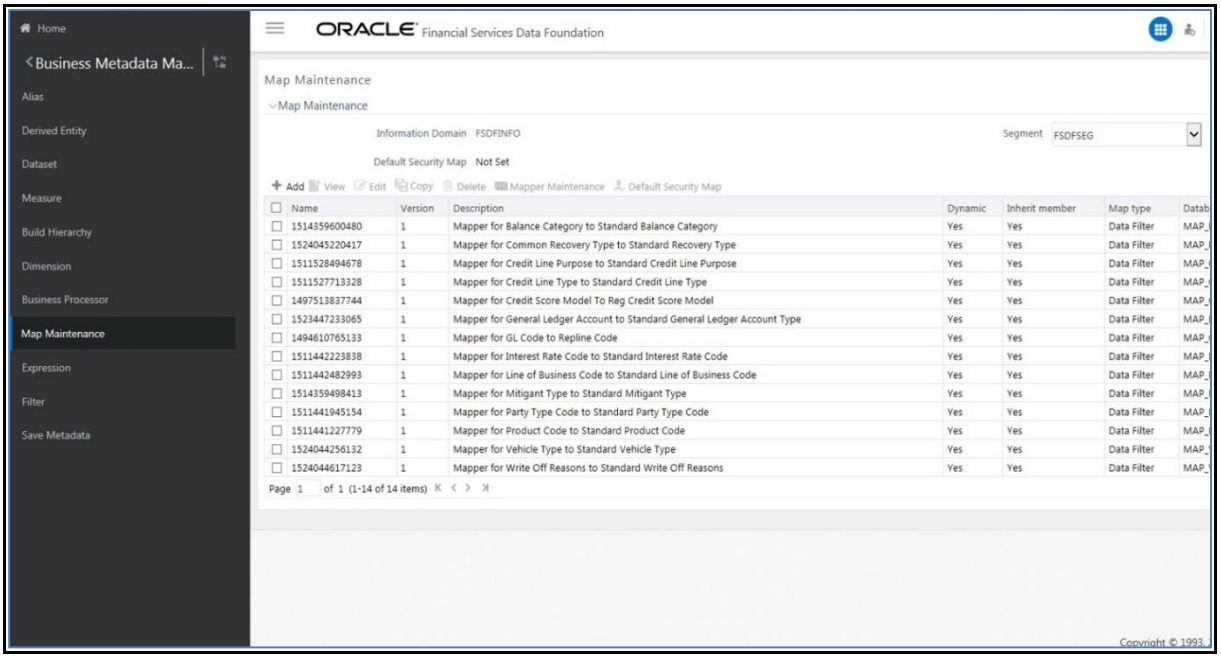
25.3 Overview of Mapper for GL to Management Reporting Result Table

The Fact Management Reporting table uses reporting line codes, which are OFSAA specific values that represent each line item of reporting requirements. On the other hand, the Stage GL Data table uses the General Ledger Codes. These General Ledger Codes are user specific values that represent each General Ledger Code of the user data records. Map GL Codes to Reporting Line Codes and then load the Fact Management Reporting target table. You can maintain these mappings through the Map Maintenance component of OFSAAI.

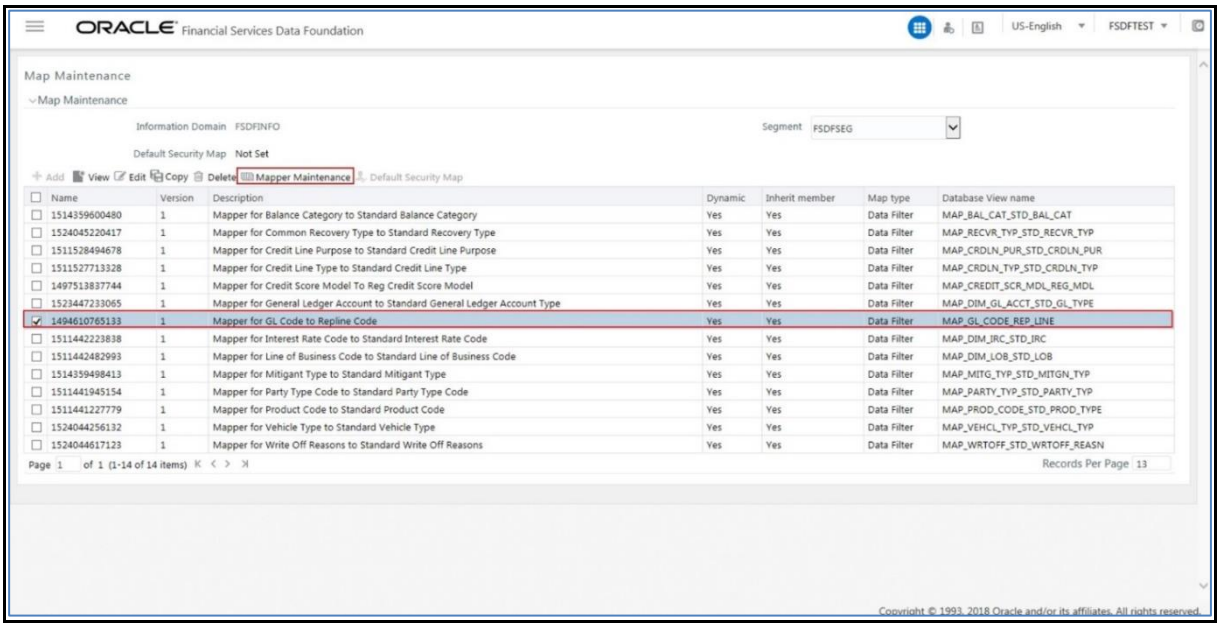
25.4 Maintaining Mappers for GL to Management Reporting Result Table

To maintain Mappers through the Map Maintenance component of OFSAAI:

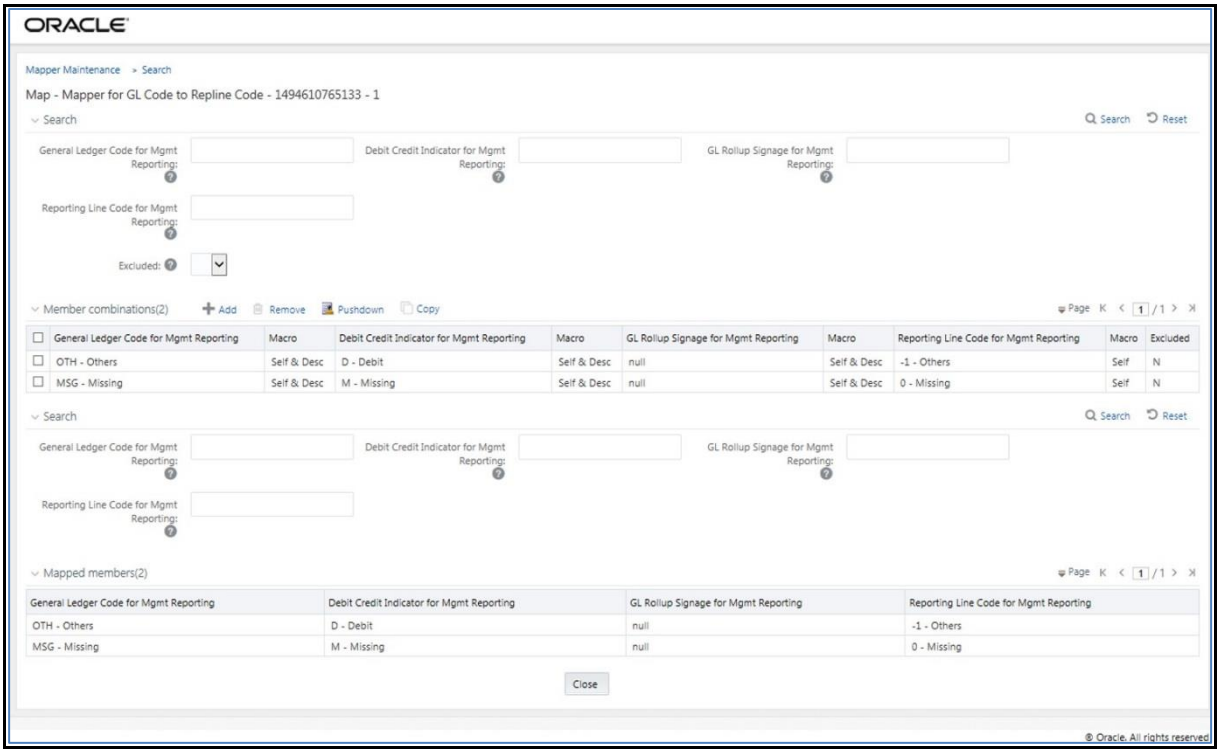
1. Go to OFSAAI > Financial Services Data Foundation > Unified Analytical Metadata > Business Metadata Management > Map Maintenance. The Map Maintenance page appears.



2. Select the mapper record Mapper for GL Code to Repline Code and then click the Mapper Maintenance icon.



3. The Mapper Maintenance page appears. The GL Codes OTH and MSG are out-of-the-box mappings. You can maintain the remaining mappings according to the user specific values.



25.4.1 Prerequisites for Mapper Maintenance

Perform these prerequisite steps for maintaining Mappers:

1. Through the SCD process, load the GL Dimension table.
2. In the Metadata Resave section, resave these hierarchies:
   - HMGMT001 - General Ledger Code for Mgmt Reporting
   - HMGMT002 - Debit Credit Indicator for Mgmt Reporting
   - HMGMT003 - GL Rollup Signage for Mgmt Reporting
   - HMGMT004 - Reporting Line Code for Mgmt Reporting

25.4.2 Possible Mapping Combinations

There are four types of mapping combinations. They are:

- Mapping combinations at child hierarchy level.
- Mapping combinations at parent and child hierarchy level.
- Mapping combinations at parent hierarchy level without Descendants.
- Mapping combinations at parent hierarchy level by removing one or more Descendants.

25.4.2.1 Mapping Combinations at Child Hierarchy Level

The mapping combinations for the General Ledger Code for Mgmt Reporting hierarchy at child member level (individual nodes) are:

- One-to-One mapping with or without Debit Credit Indicator.
- Many-to-One mapping with or without Debit Credit Indicator.
- Many-to-Many mapping with or without Debit Credit Indicator.

The procedures for mapping combinations are:

25.4.2.1.1 One-to-One mapping with or without Debit Credit Indicator

To map one GL Code to one Reporting Line Code, use the Mapper Maintenance utility. In this utility, select one member in the General Ledger Code for Mgmt Reporting hierarchy, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one member in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table for the selected GL Code loads into the Fact Management Reporting table.

NOTE

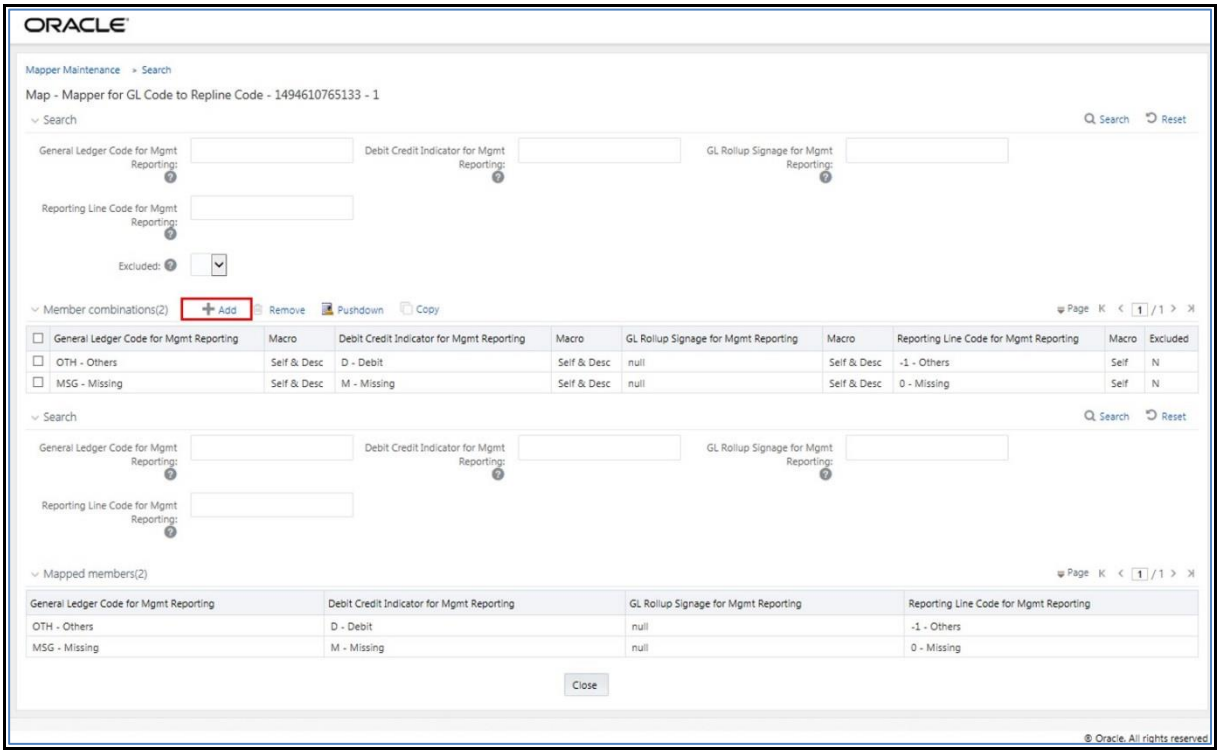
The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.

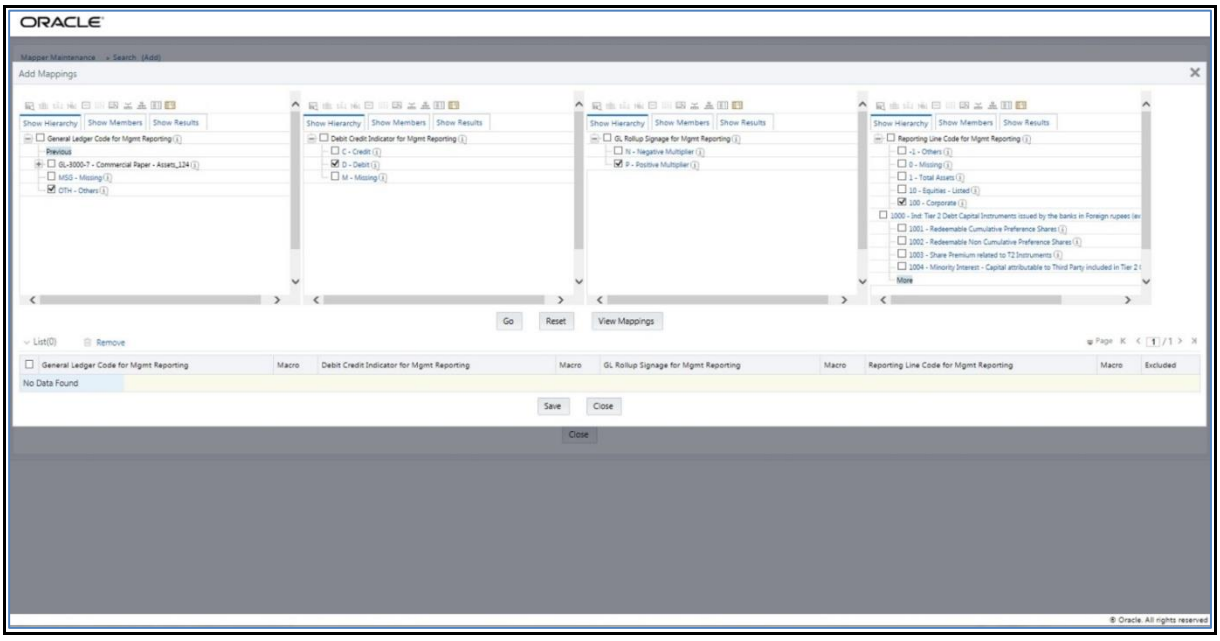
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform One-to-One mapping with or without Debit Credit Indicator:

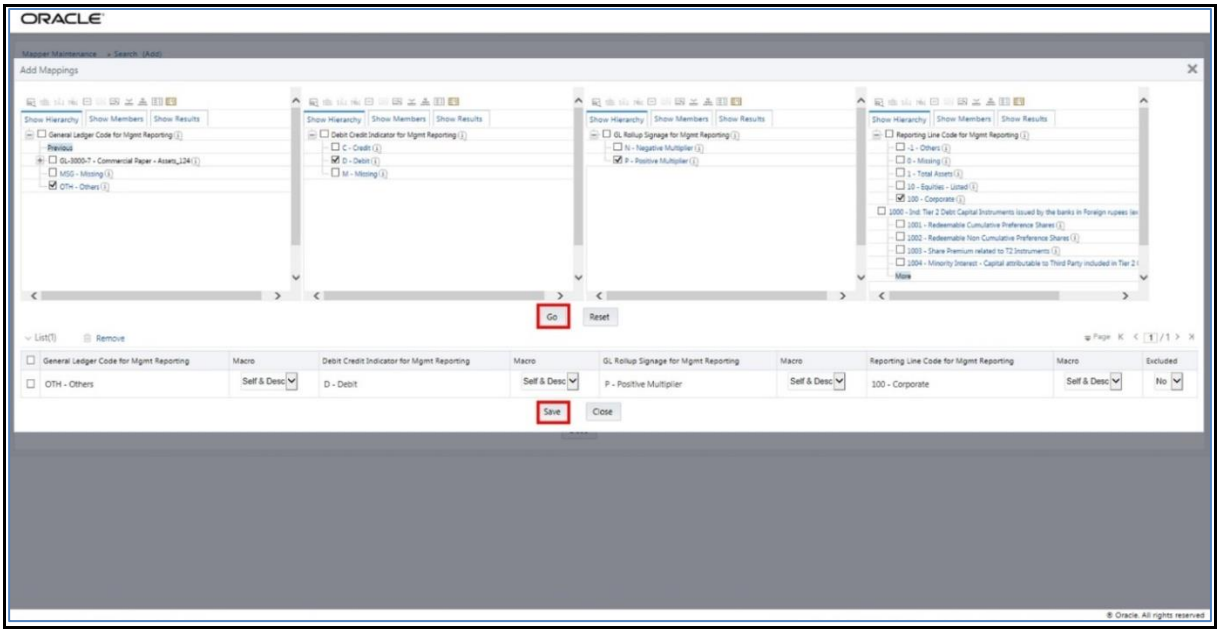
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.



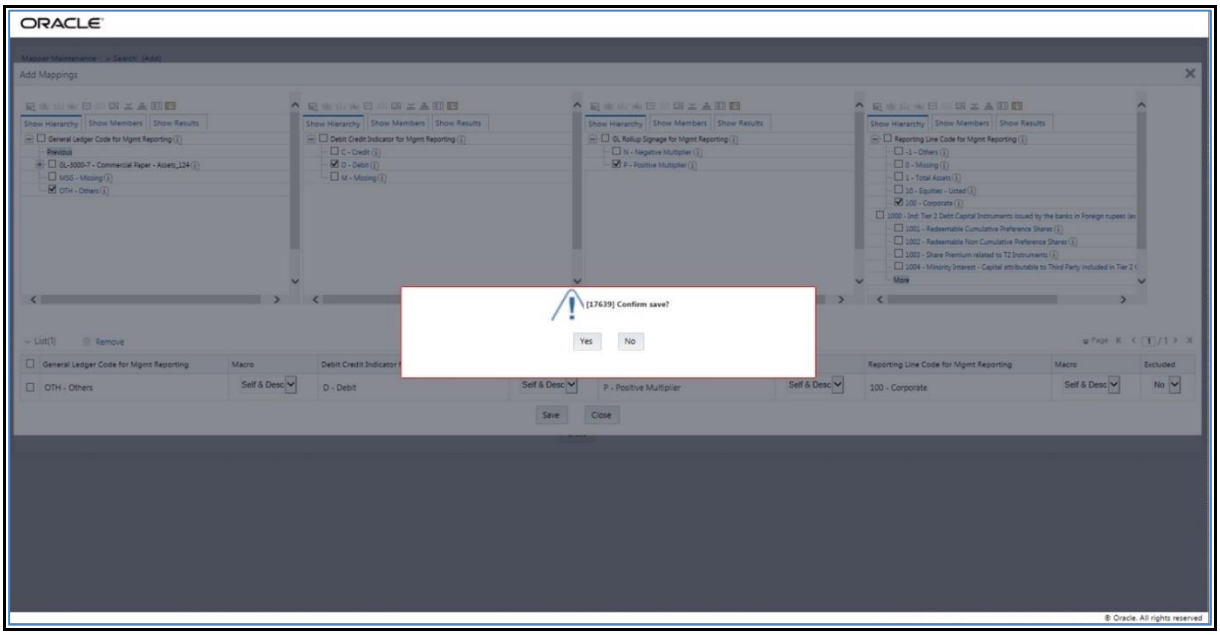
2. The **Add Mappings** pop-up page appears. For illustration, select the member of the General Ledger Code for Mgmt Reporting hierarchy **OTH - Others**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **D - Debit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **100 - Corporate** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**.



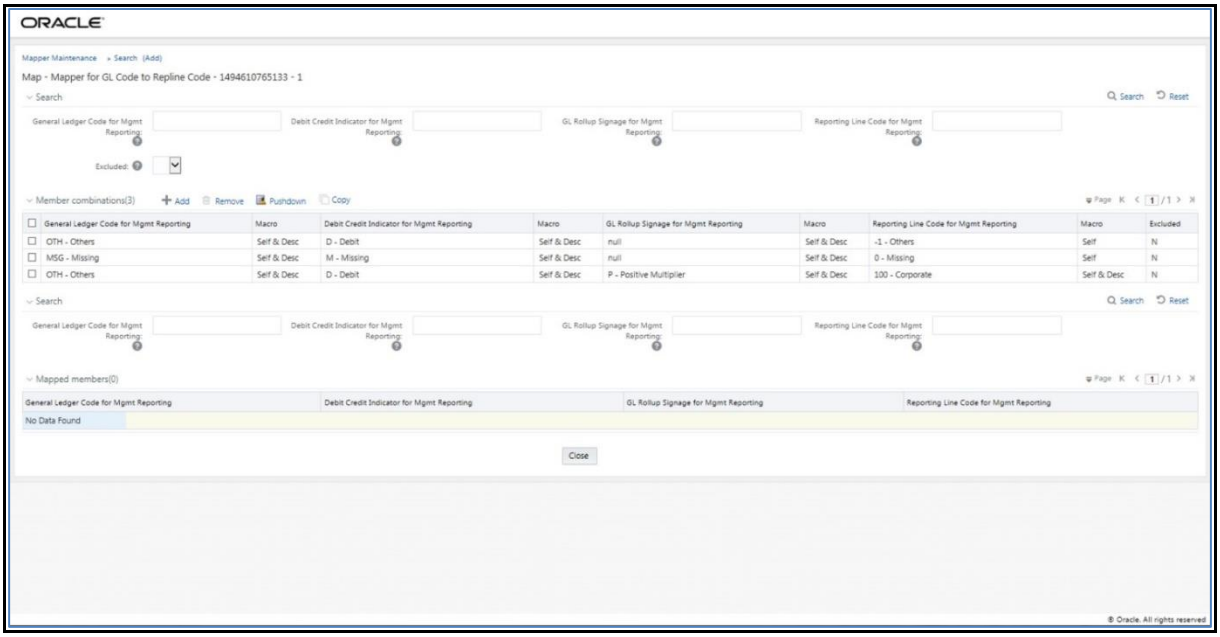
3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mapping, click **Yes**.



5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.1.2 Many-to-One mapping with or without Debit Credit Indicator

To map multiple GL Codes to one Reporting Line Code, use the Mapper Maintenance utility. In this utility, select two or more members in the General Ledger Code for Mgmt Reporting hierarchy, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one member in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected GL Codes, are aggregated and then loaded into the Fact Management Reporting table.

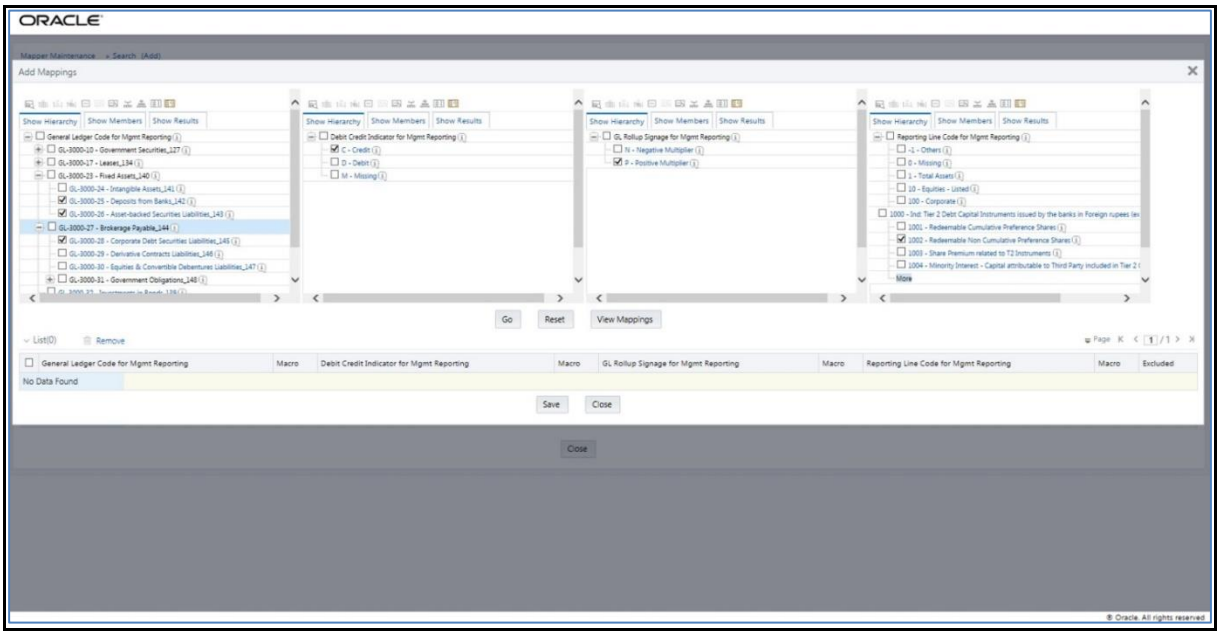
NOTE

In the T2T process, in the Stage GL Data table, the GL Code aggregation takes place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

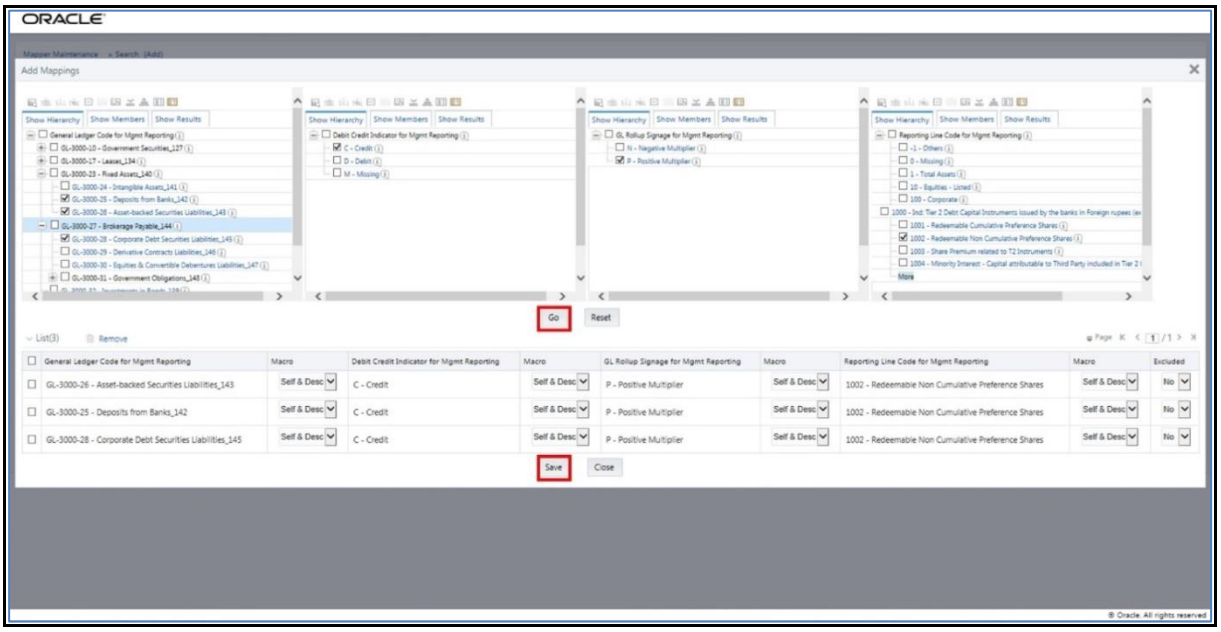
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform Many-to-One mapping with or without Debit Credit Indicator:

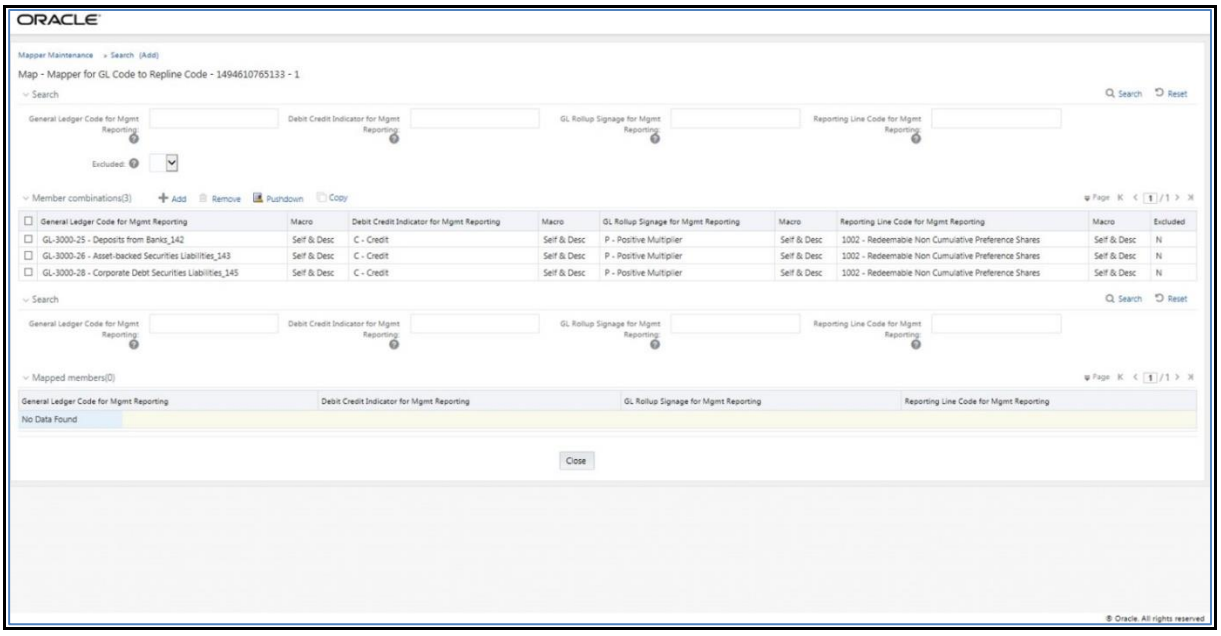
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select the child members of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-25 - Deposits from Banks_142**, **GL-3000-26 – Asset-backed Securities Liabilities_143** and **GL-3000-28 - Corporate Debt Securities Liabilities_145**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy, **C - Credit** to map to the Reporting Line Code hierarchy member **1002 - Redeemable Non Cumulative Preference Shares** with the GL Rollup Signage hierarchy member **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.1.3 Many-to-Many mapping with or without Debit Credit Indicator

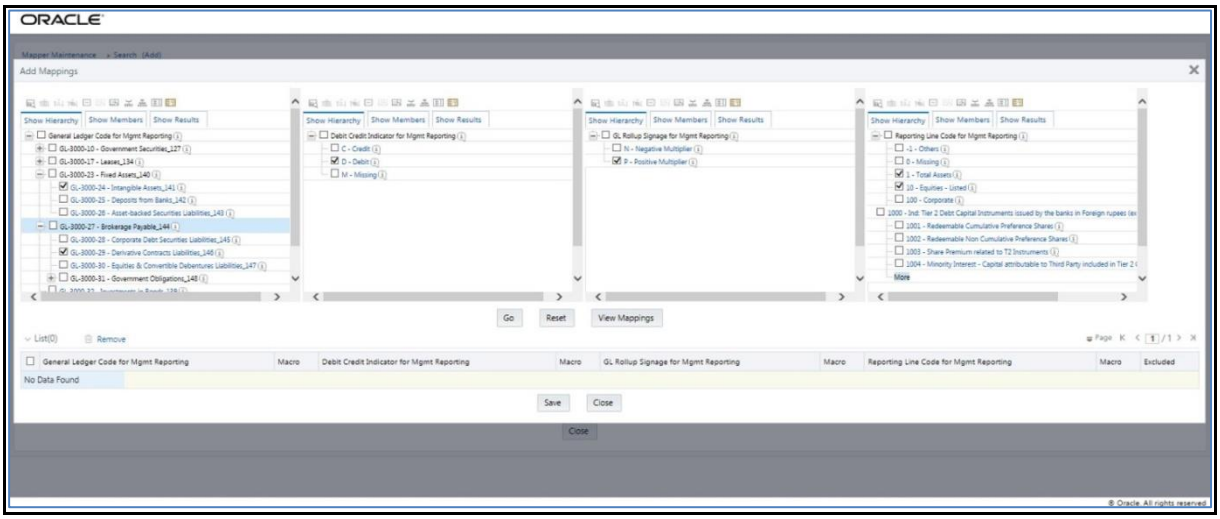
To map multiple GL Codes to multiple Reporting Line Codes, use the Mapper Maintenance utility. In this utility, select two or more members in the General Ledger Code for Mgmt Reporting hierarchy, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select two or more members in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected GL Codes, are aggregated and then loaded into the Fact Management Reporting table.

NOTE In the T2T process, in the Stage GL Data table, the GL Code aggregation takes place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

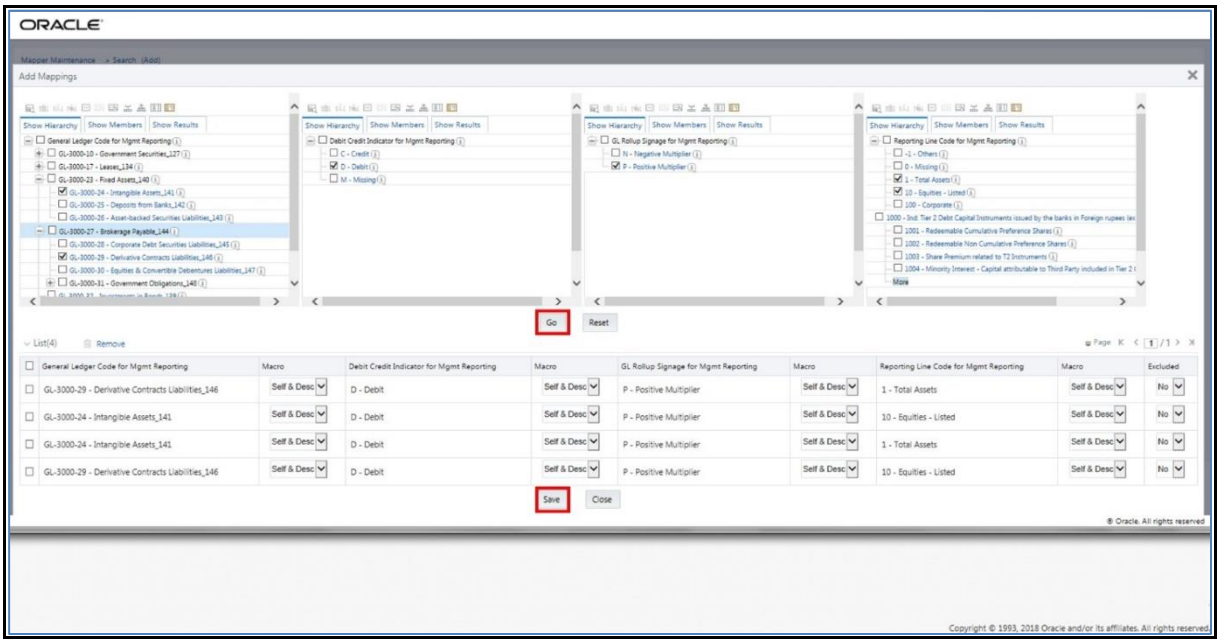
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform Many-to-Many mapping with or without Debit Credit Indicator:

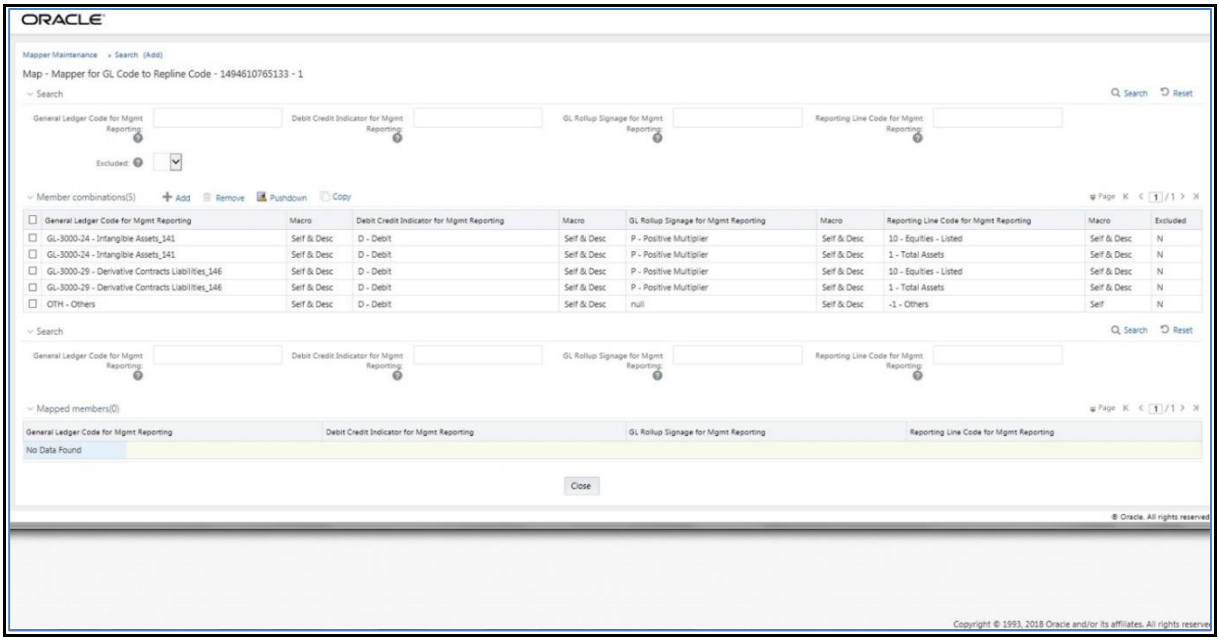
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select the child members of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-24 – Intangible Assets_141** and **GL-3000-29 – Derivative Contracts Liabilities_145**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy, **D - Debit** to map to the child members of the Reporting Line Code for Mgmt Reporting hierarchy, **1 - Total Assets** and **10 - Equities Listed** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy, **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.2 Mapping Combinations at Parent and Child Hierarchy Level

The mapping combinations for the General Ledger Code for Mgmt Reporting hierarchy maintained as Parent-Child hierarchy are:

- One Parent to One Reporting Line Code mapping with or without Debit Credit Indicator.
- Many Parents to One Reporting Line Code mapping with or without Debit Credit Indicator.

- Many Parents to Many Reporting Line Codes mapping with or without Debit Credit Indicator.

The procedures for mapping combinations as Parent-Child hierarchy are:

25.4.2.2.1 One Parent to One Reporting Line Code mapping with or without Debit Credit Indicator

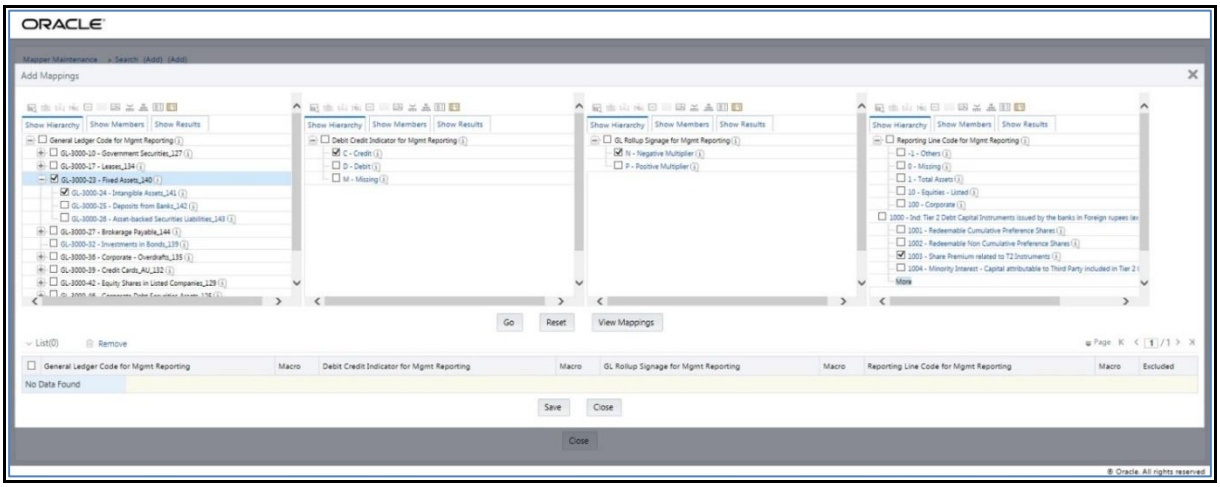
To map one parent GL Code to one Reporting Line Code, use the Mapper Maintenance utility. In this utility, select one parent GL Code, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one member in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected parent GL Codes and their descendants, are aggregated and then loaded into the Fact Management Reporting table.

NOTE In the T2T process, in the Stage GL Data table, the aggregation of parent GL Codes and their descendants take place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

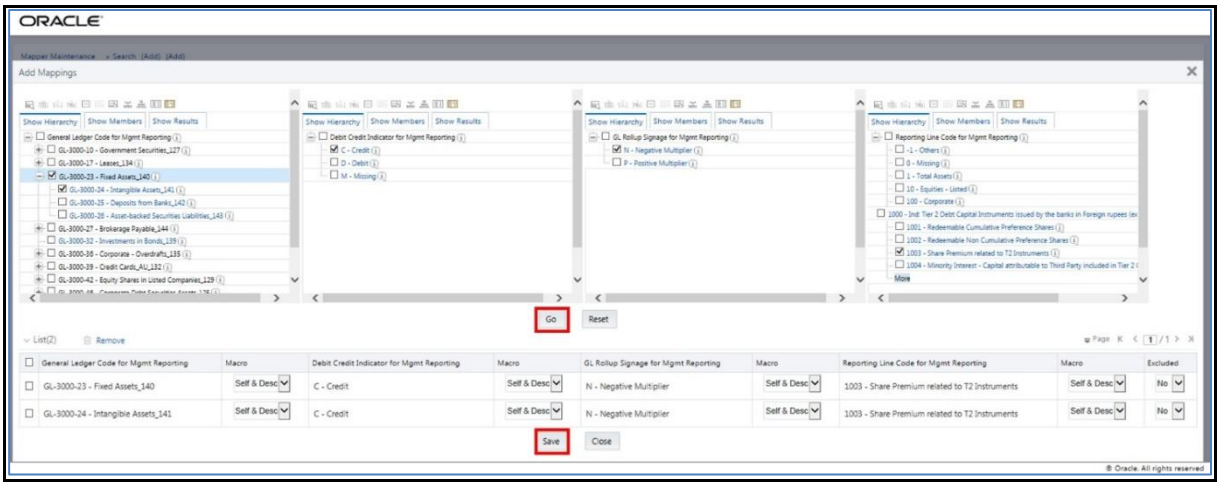
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform One Parent to One Reporting Line Code mapping with or without Debit Credit Indicator:

1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-23 – Fixed Assets_140** and its child member **GL-3000-24 – Intangible Assets_141**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **C - Credit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **1003 – Share Premium** related to T2 Instruments with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **N - Negative Multiplier**.

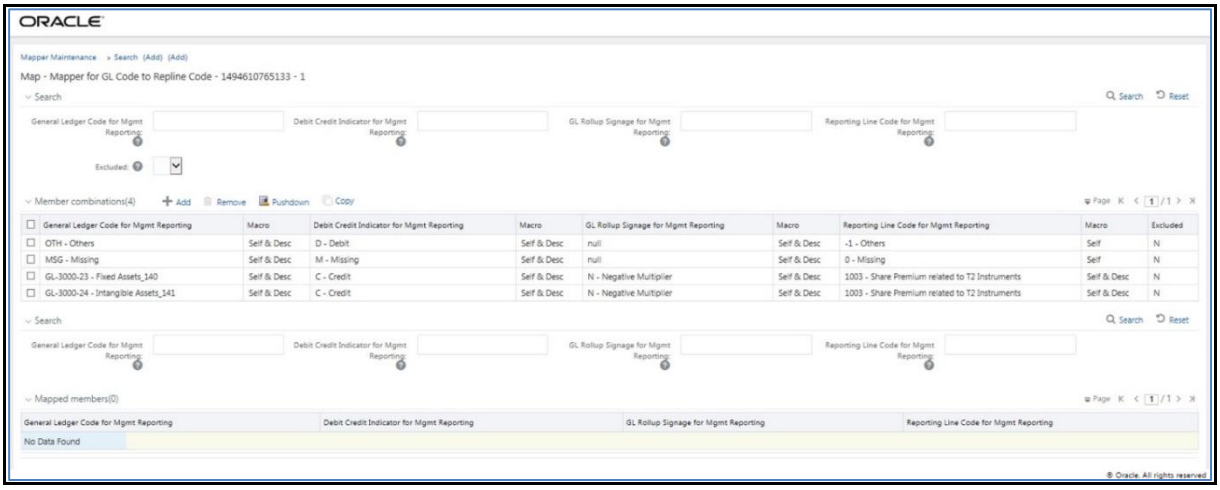


3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.

5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.2.2 Many Parents to One Reporting Line Code with or without Debit Credit Indicator

To map multiple parent GL Codes to one Reporting Line Code, use the Mapper Maintenance utility. In this utility, select two or more parent GL Codes, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one member in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected parent GL Codes and their descendants, are aggregated and then loaded into the Fact Management Reporting table.

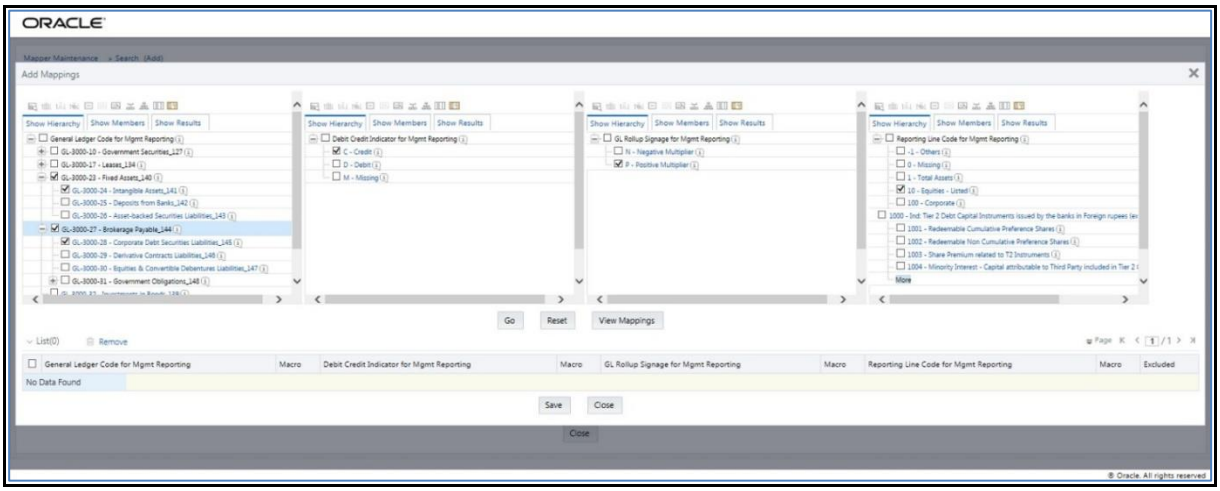
NOTE

In the T2T process, in the Stage GL Data table, the aggregation of parent GL Codes and their descendants take place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

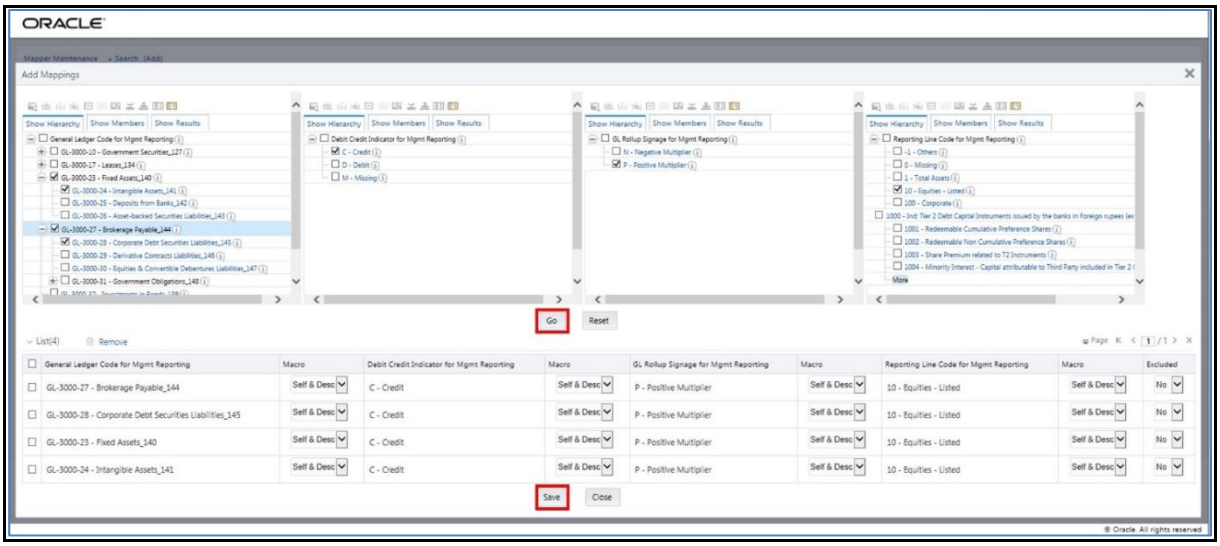
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform Many Parents to One Reporting Line Code mapping with or without Debit Credit Indicator:

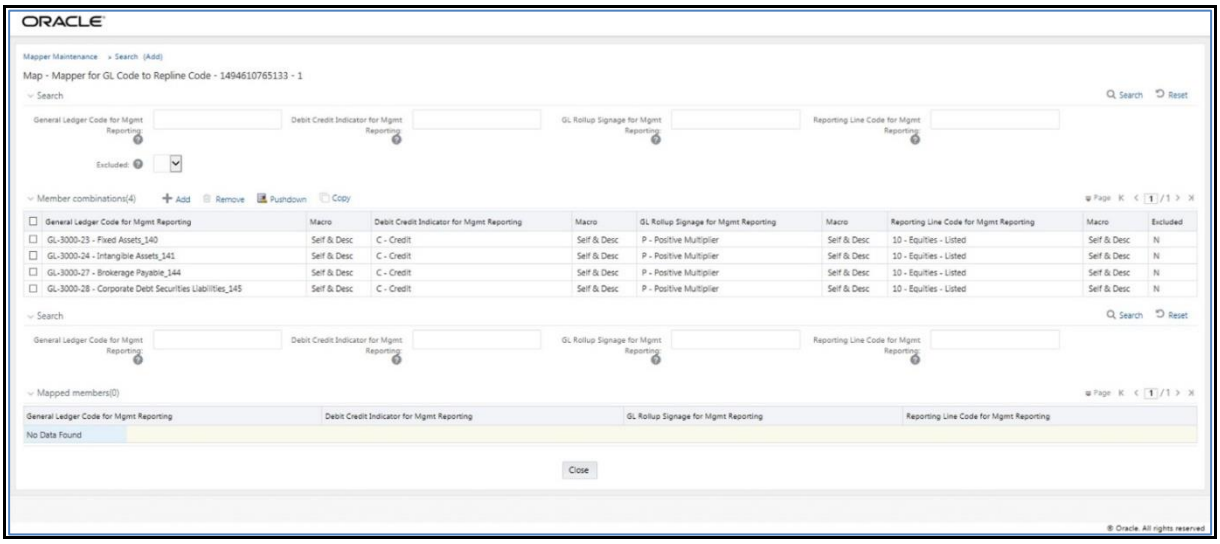
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select parent members of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-23 – Fixed Assets_140** and **GL-3000-27 – Brokerage Payable_144**, and their child members **GL-3000-24 – Intangible Assets_141** and **GL-3000-28 – Corporate Debt Securities Liabilities_145** respectively, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **C - Credit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **10 – Equities - Listed** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.2.3 Many Parents to Many Reporting Line Codes with or without Debit Credit Indicator

To map multiple parent GL Codes to multiple Reporting Line Codes, use the Mapper Maintenance utility. In this utility, select two or more parent GL Codes, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select two or more members in the Reporting Line Code hierarchy. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected parent GL Codes and their descendants, are aggregated and then loaded into the Fact Management Reporting table.

NOTE

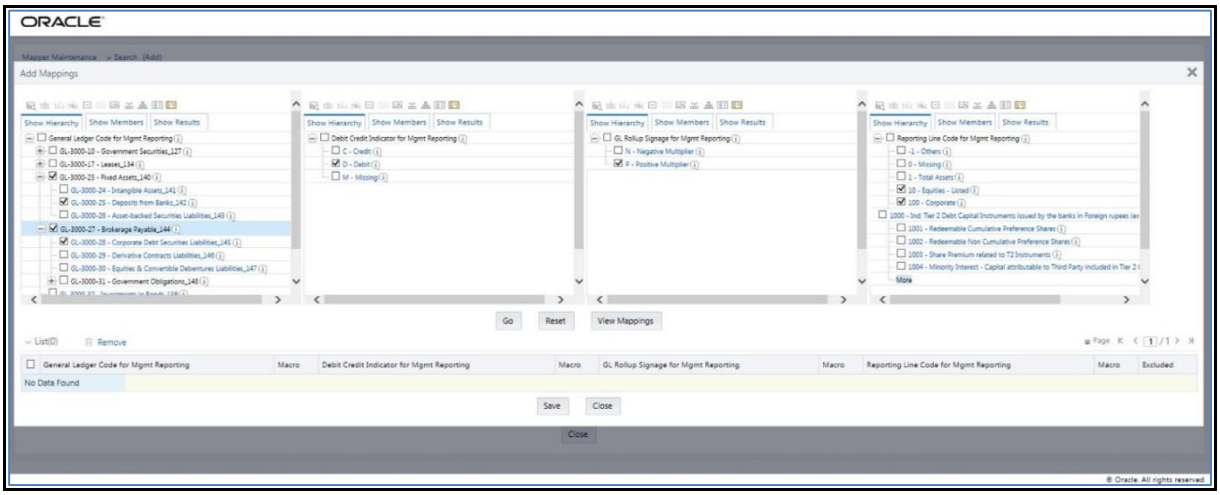
In the T2T process, in the Stage GL Data table, the aggregation of parent GL Codes and their descendants take place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

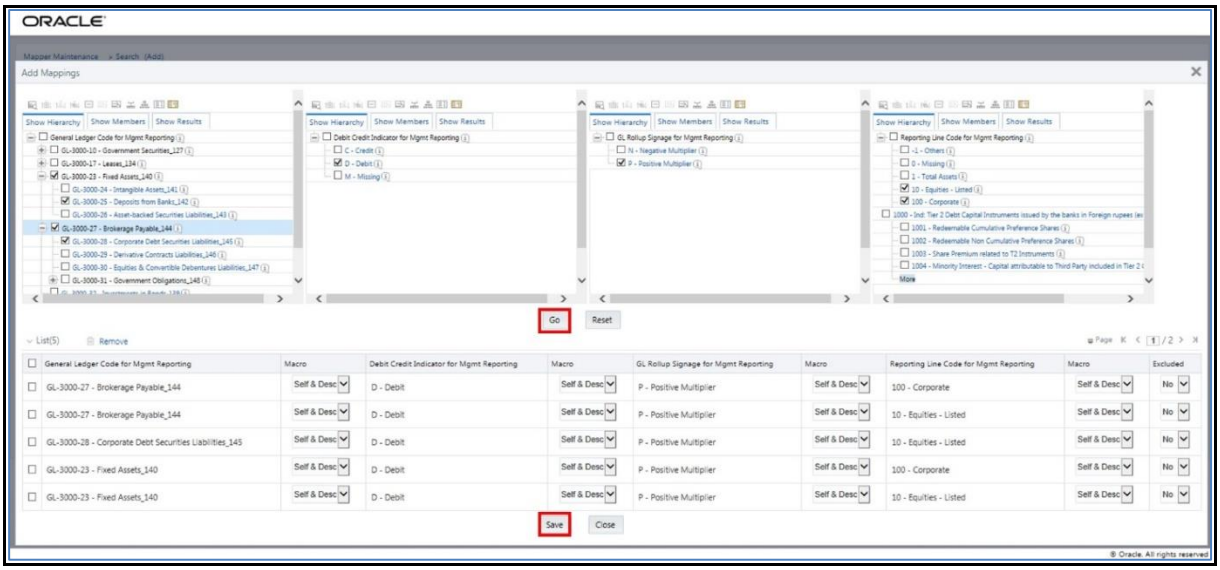
To perform Many Parents to Many Reporting Line Codes mapping with or without Debit Credit Indicator:

1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.

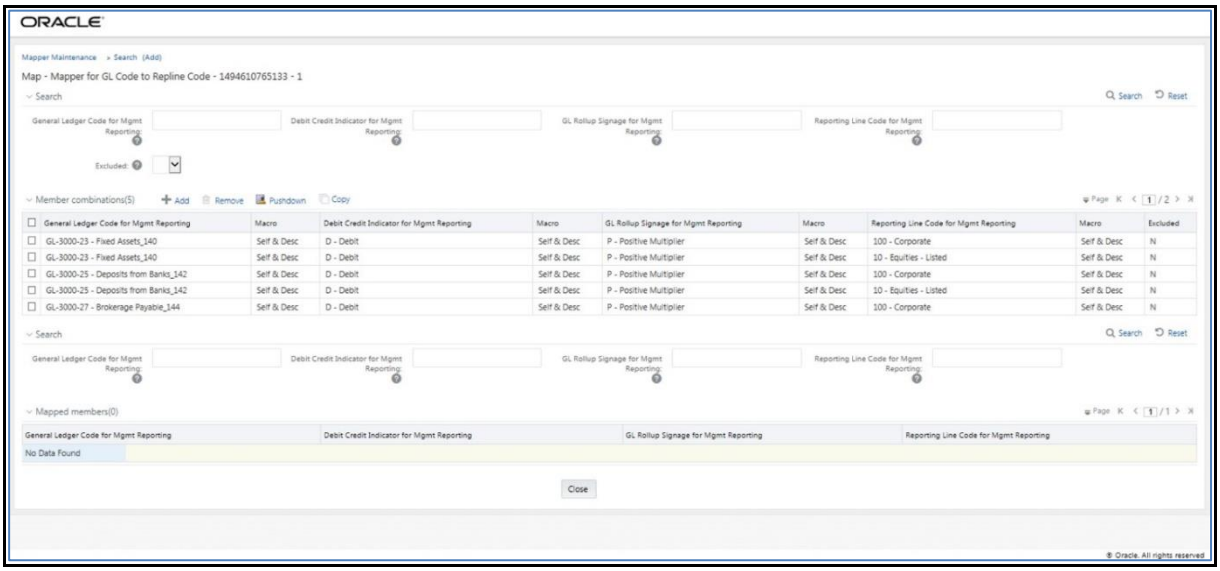
2. The **Add Mappings** pop-up page appears. For illustration, select parent members of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-23 – Fixed Assets_140** and **GL-3000-27 – Brokerage Payable_144**, and their child members **GL-3000-24 – Intangible Assets_141** and **GL-3000-28 – Corporate Debt Securities Liabilities_145** respectively, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **C - Credit** to map to the members of the Reporting Line Code for Mgmt Reporting hierarchy **10 – Equities - Listed** and **100 – Corporate** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped members appear at the bottom. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page.



25.4.2.3 Mapping Combinations at Parent Hierarchy Level without Descendants

This section explains about the mapping combinations for the General Ledger Code for Mgmt Reporting hierarchy at Parent level hierarchy without Descendants (child members).

To map one parent GL Code without Descendants to one or more Reporting Line Codes, use the Mapper Maintenance utility. In this utility, select one parent GL Code, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one or more members in the Reporting Line Code hierarchy. Then for the GL hierarchy, select Self in the Macro column. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected parent GL Code, is aggregated and then loaded into the Fact Management Reporting table.

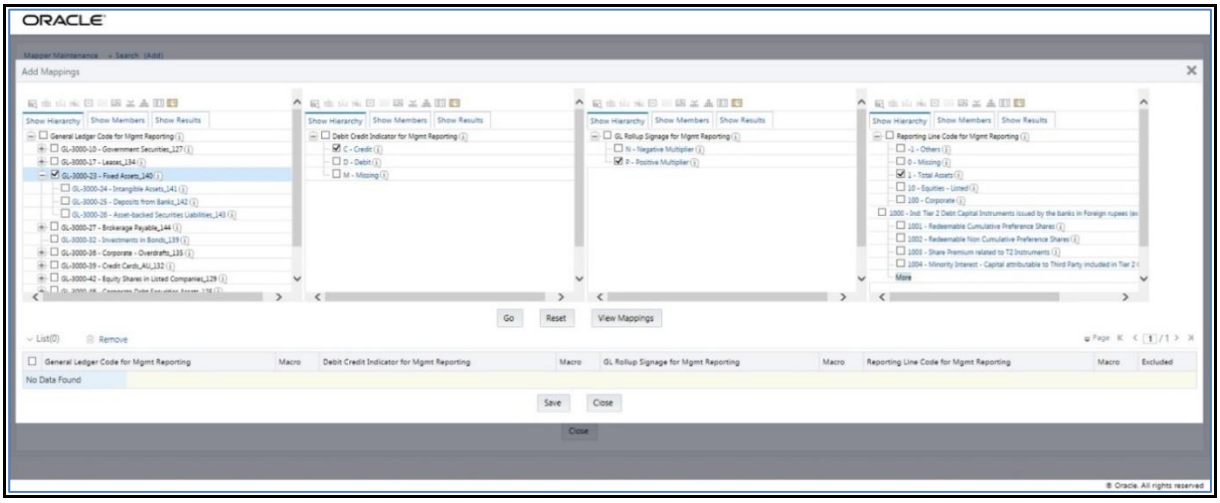
NOTE

In the T2T process, in the Stage GL Data table, the aggregation of parent GL Code takes place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

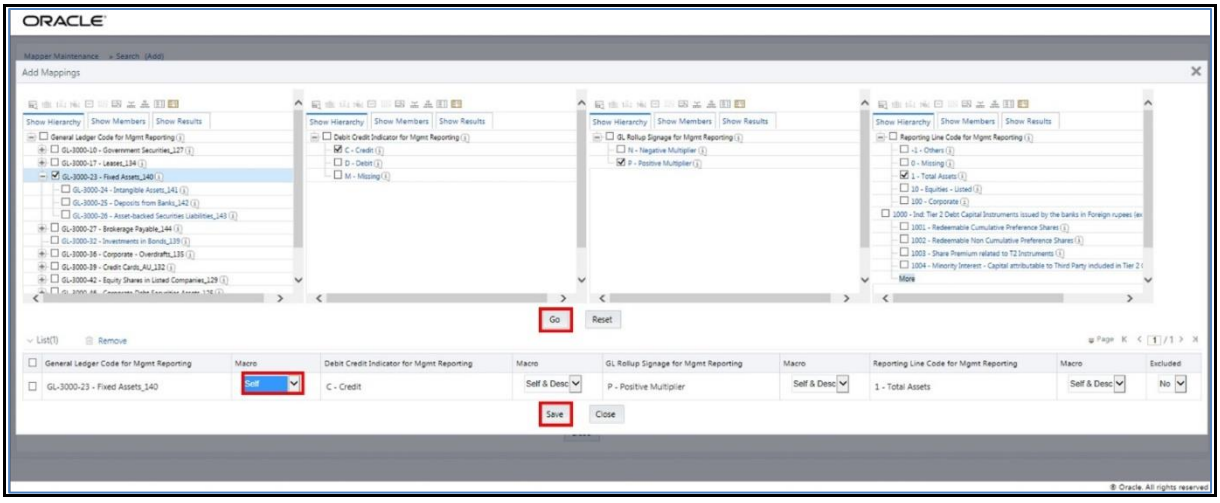
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform One Parent to One or Many Reporting Line Codes mappings without Descendants:

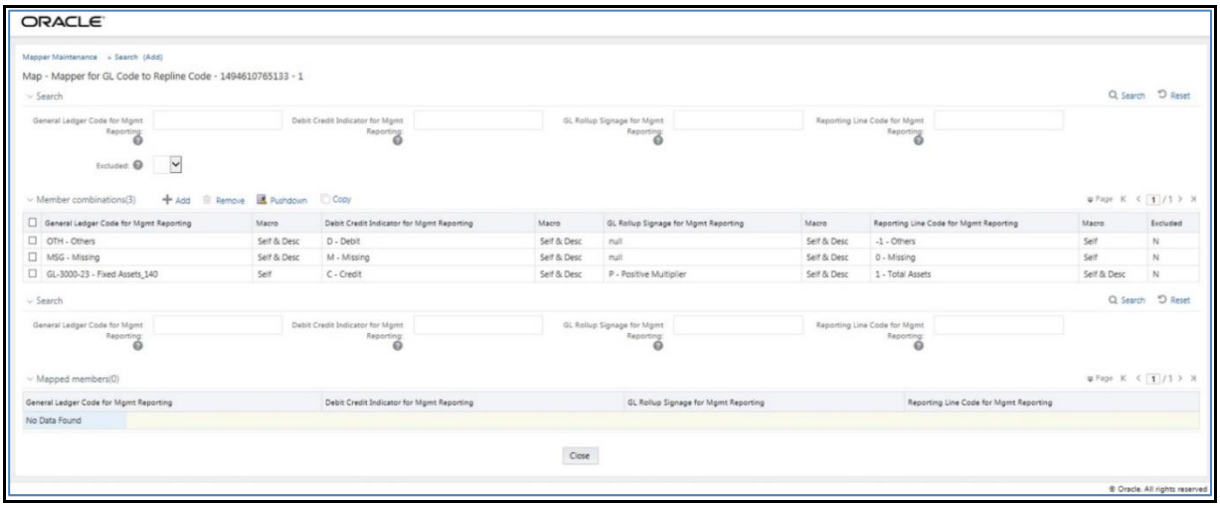
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy **GL-3000-23 – Fixed Assets_140**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **C - Credit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **1 – Total Assets** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped member appears at the bottom. To exclude the Descendants of the GL Code from the mapping, in the Macro column, select **Self**. To save the mappings, click **Save**.



4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page with the Macro value of GL Code as Self.



25.4.2.4 Mapping Combinations at Parent Hierarchy Level by Removing one or more Descendants

This section explains about the mapping combinations for the General Ledger Code for Mgmt Reporting hierarchy at Parent level hierarchy by removing one or more Descendants (child members).

To map one parent GL Code to one or more Reporting Line Codes by removing one or more Descendants, use the Mapper Maintenance utility. In this utility, select one parent GL Code with one or more Descendants, select one member in the Debit Credit Indicator hierarchy with the value Debit or Credit or Missing, and select one or more members in the Reporting Line Code hierarchy. Then for the GL hierarchy, in the Macro column, select Self & Descendants and in the Excluded column, select either Yes to exclude or No to include the Descendants from mapping. As a result, during the T2T process, the corresponding data from the Stage GL Data table, for the selected parent GL Code and its descendants, is aggregated and then loaded into the Fact Management Reporting table.

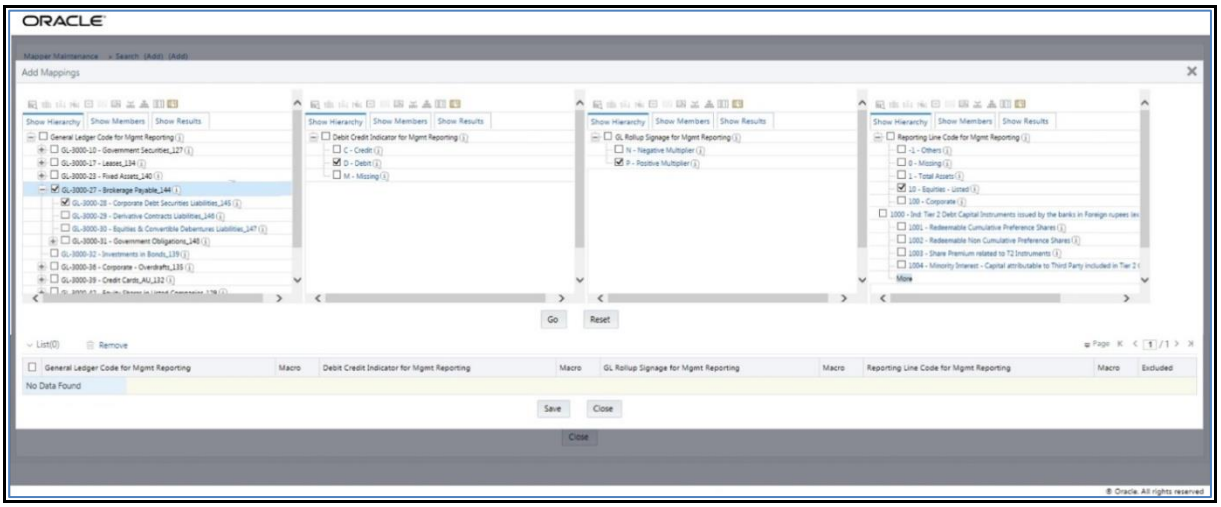
NOTE

In the T2T process, in the Stage GL Data table, the aggregation of parent GL Code and its descendants take place in all the Measure columns that are associated with the Primary Keys. The conditions for the Debit Credit Indicator column values in the Stage GL Data table are:

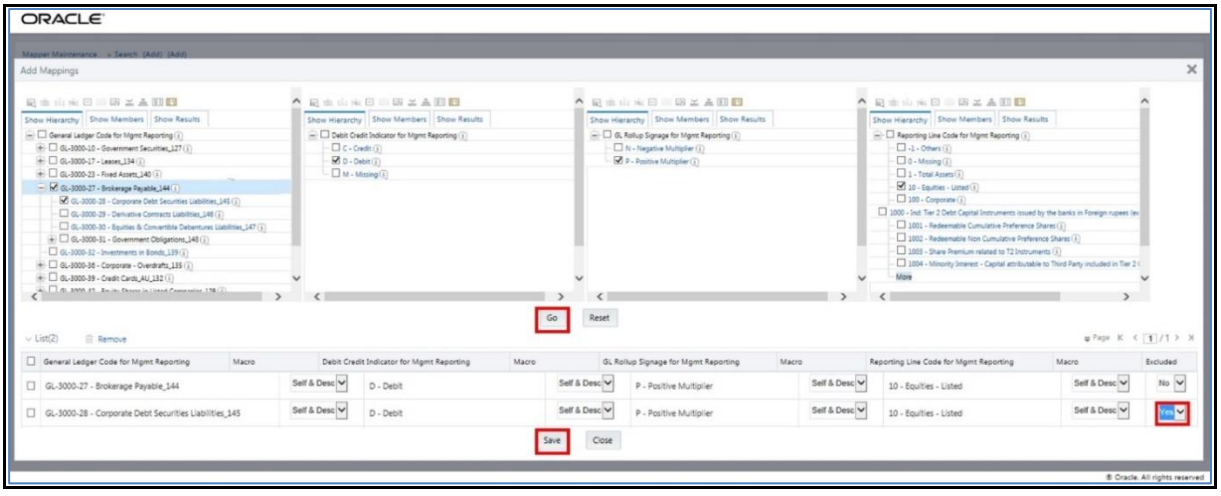
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

To perform One Parent to One or Many Reporting Line Codes mapping by removing one or more GL Code Descendants:

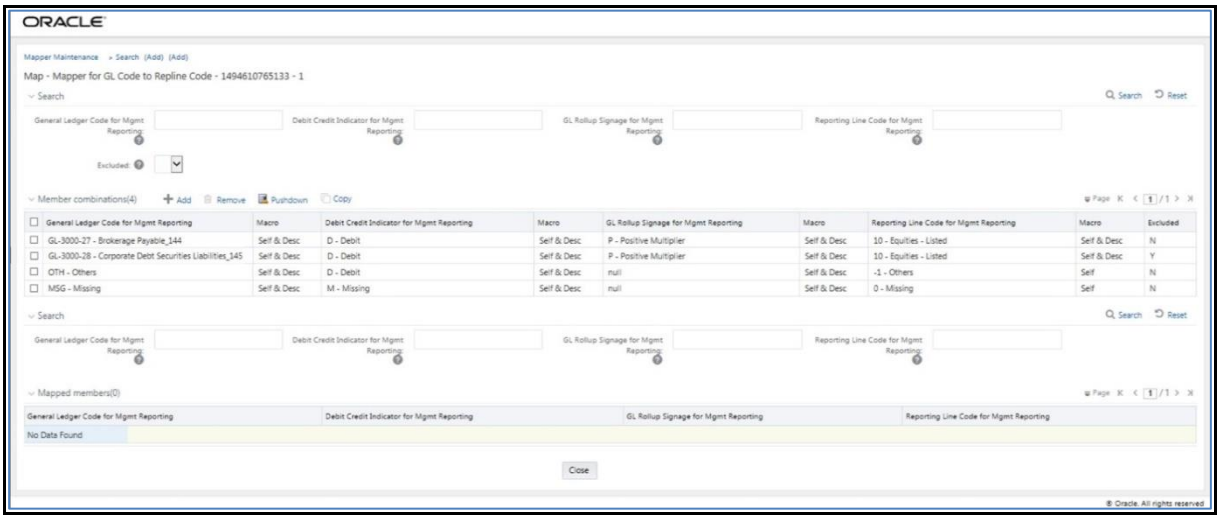
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy **GL-3000-27 – Brokerage Payable_144** and its child member (Descendant) **GL-3000-28 – Corporate Debt Securities Liabilities_145**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **D - Debit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **10 – Equities - Listed** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**.



3. To map the members, click **Go**. The list of mapped members appear at the bottom. To exclude the Descendant of the GL Code from the mapping, in the Macro column, select **Self & Descendants**, and in the Excluded column, select **Yes**. To save the mappings, click **Save**.



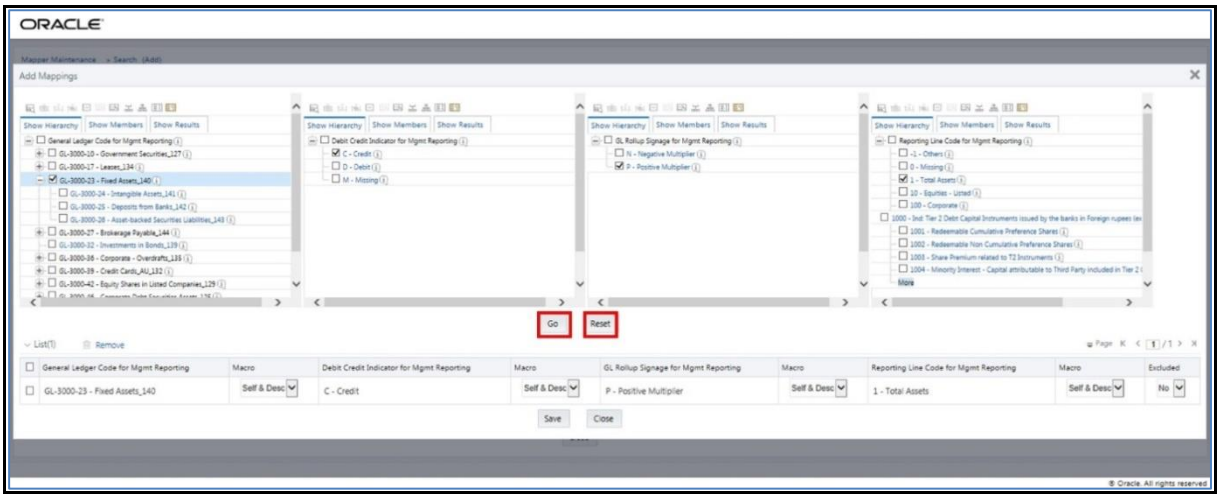
4. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
5. The mapped member combinations are listed in the Mapper Maintenance page with the Macro value of GL Code as Self.



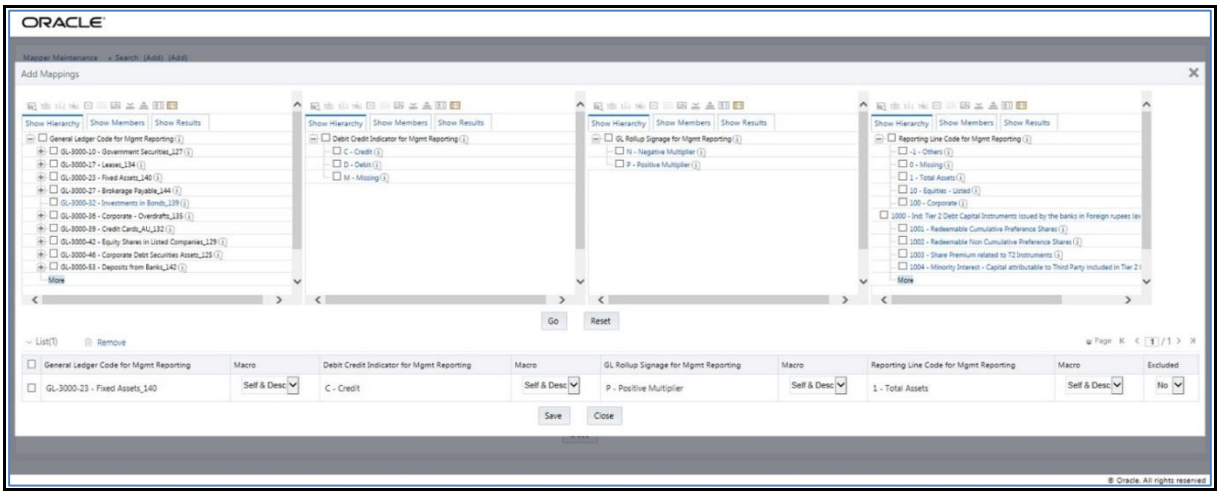
25.4.3 Performing Multiple Sets of Mapping Combinations

To perform mapping more than one time in the Add Mappings page, use the Reset functionality. To perform this procedure:

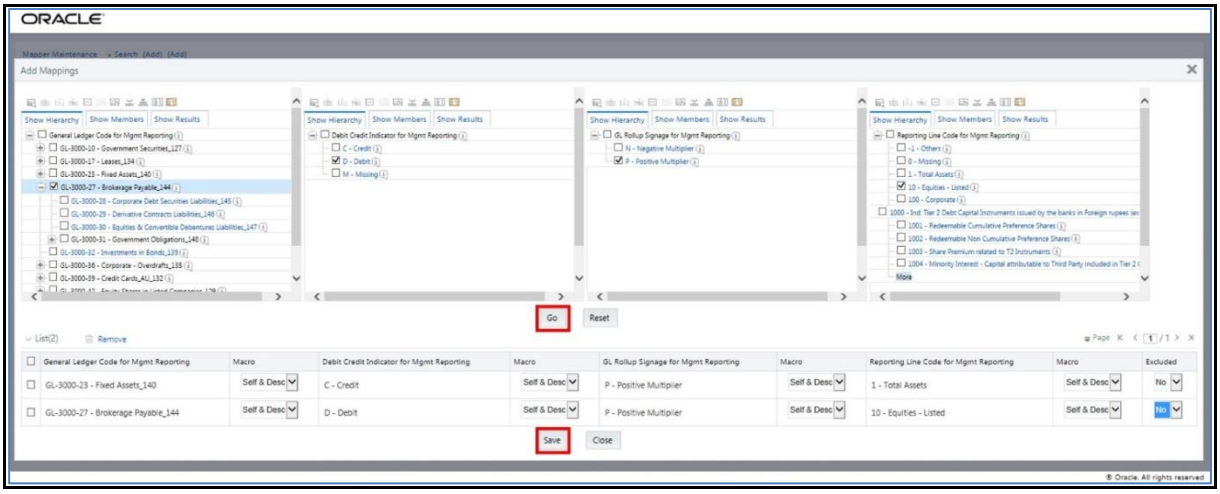
1. In the **Mapper Maintenance** page, in the **Member combinations** section, click **Add**.
2. The **Add Mappings** pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-23 – Fixed Assets_140**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **C - Credit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **1 – Total Assets** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**. To map the members, click **Go**. The list of mapped members appear at the bottom. To initiate mapping of another set of member combinations, click **Reset**.



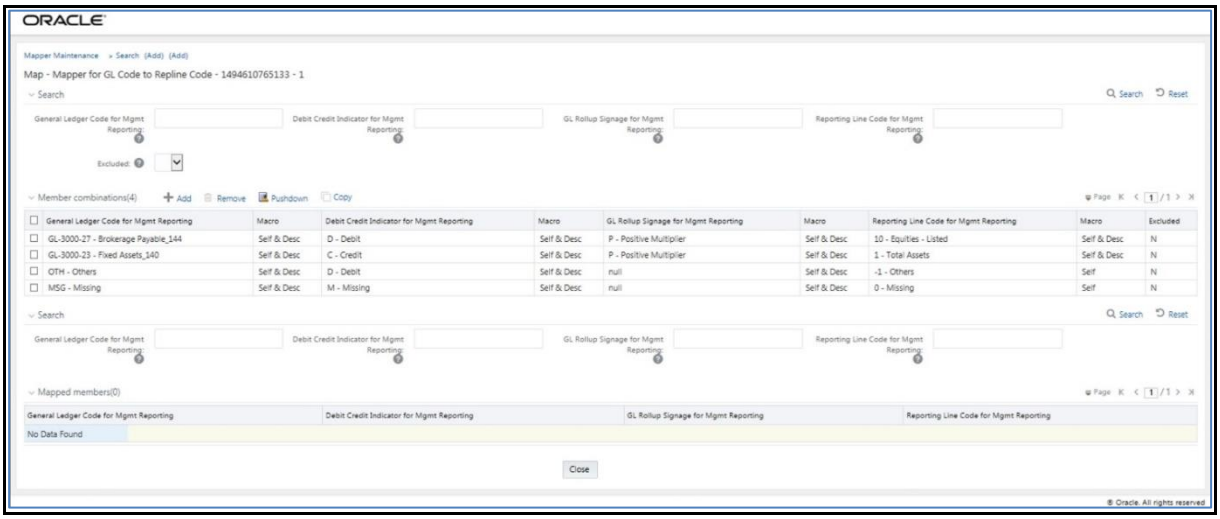
3. The mapping selections clear.



4. For illustration, select parent member of the General Ledger Code for Mgmt Reporting hierarchy, **GL-3000-27 – Brokerage Payable_144**, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy **D - Debit** to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy **10 – Equities - Listed** with the member of the GL Rollup Signage for Mgmt Reporting hierarchy **P - Positive Multiplier**. To map this set of member combinations, click **Go**. To save the mappings, click **Save**.



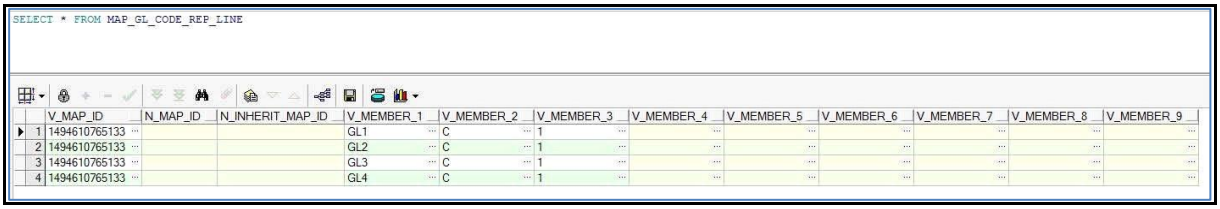
5. An acknowledgement pop-up message appears. To confirm saving the mappings, click **Yes**.
6. Both set of mapped member combinations are listed in the Mapper Maintenance page.



25.5 Loading Mapper Maintenance from Backend

In this illustration, load the MAP_GL_CODE_REP_LINE table in the Atomic schema with the V_MAP_ID value as 1494610765133, and load these column values:

- V_MEMBER_1 = GL Code (values from DIM_GL_ACCOUNT.V_GL_ACCOUNT_CODE).
- V_MEMBER_2 = Debit Credit Indicator (values should be C or D or M).
- V_MEMBER_3 = GL Rollup Signage.
- V_MEMBER_4 = Reporting Line Code (values from DIM_REP_LINE.N_REP_LINE_CD).



NOTE These values are real business key columns and not display codes.

25.6 Executing GL to Management Reporting T2T

25.6.1 Executing T2T through Run Management

T2T is a part of Financial Services Data Foundation Sourced Run process. Execute this process through the seeded Financial Services Data Foundation Execution Run.

> **NOTE** When executing Run through Run Management, RUNSkey auto-generates and stamps against each record.

25.6.2 Error Messages

In the path **ftpshare/logs/<Run_Date>/<infodom>/LOAD_DATA**, in the T2T log file, the most common error message is:

- Unique Constraint Violation: This occurs when attempting the re-load or when loading existing records for the already executed AS_OF_DATE.

25.7 Checking the Execution Status for GL to Management Reporting Result Table

Monitor the status of run execution in the Batch Monitor page.

> **NOTE** For a more comprehensive information on configuration and execution of a batch, refer to the Oracle Financial Services Analytical Applications Infrastructure User Guide.

In the Batch Monitor page, the status messages are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

To access the execution log file on the application server, go to the directory **ftpshare/logs/<Run_Date>/<infodom>/LOAD DATA**. The execution log file consists of the Batch Execution ID.

The error log tables in atomic schema:

- FCT_MGMT_REPORTING$

25.8 Generating GL to Management Reporting Result Table in Excel Format

To retrieve the T2T definitions in Excel document format for reference, go to the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

26 Other Miscellaneous Population

This chapter provides information about Populating various other Results Tables in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Other Results Tables
- Overview of Other Results Population
- Table to Table seeded definitions are provided in the target Dimension tables:
- Checking the Execution Status
- Various Other Results T2Ts

26.1.1 Overview of Other Results Tables

Other Results Tables are loaded from respective Stage tables using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores other results:

- FCT_CUST_IDENTIFICATION_DOC
- FCT_ENTITY_PARENT_INFO
- FCT_INTRA_COMPANY_ACCT_SUMMARY
- FCT_ISSUED_INSTR_POSITIONS
- FCT_ACCOUNT_POSTION_PAIR
- FCT_ACCT_RECOVERY_DETAILS
- FCT_ACCT_WRITE_OFF_DETAILS
- FCT_ASSETS_SOLD
- FCT_CAP_INSTR_POSITIONS
- FCT_CAP_INSTR_TXNS
- FCT_CREDIT_LINE
- FCT_FIXED_ASSETS
- FCT_FUND_CIS_COMPOSITION
- FCT_INSTR_PROPOSED_TXNS
- FCT_LEGAL_ENTITY_DETAILS
- FCT_LITIGATION_DETAILS

- FCT_LOANS_SERVICED
- FCT_MERCHANT_BANKING
- FCT_PAYMENTS_SUMMARY
- FCT_RECOVERY
- FCT_SPEND_OBLIGATIONS
- FCT_TRD_ACCOUNT_TXN_SUMMARY
- FCT_SERV_LN_CUST_RELATIONSHIP
- FCT_ACCT_CUST_RELATIONSHIP
- FCT_CORPORATE_ACTIONS
- FCT_TRADE_EXECUTION
- FCT_SECURITIZATION_POOL
- DIM_CONSENT_PURPOSE
- DIM_CREDIT_REASON
- DIM_COMMODITY_GRADE
- DIM_SUB_NETTING_AGREEMENT
- DIM_LEGAL_PROCEDING_STATUS

26.1.2 Overview of Other Results Population

Table to Table seeded definitions are provided for loading data into the target Fact tables:

Table 35: Table to Table Seeded Definitions for Fact Target Tables

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	STG_ASSETS_SOLD	FCT_ACCOUNT_POSTION_PAIR	T2T_FCT_ASSETS_SOLD
2	STG_ENTITY_PARENT_DETAILS	FCT_ENTITY_PARENT_INFO	T2T_FCT_ENTITY_PARE NT_INFO
3	STG_ISSUED_INSTR_POSITIONS	FCT_ISSUED_INSTR_POSITIONS	T2T_FCT_ISSUED_INSTR_POSITIONS

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
4	STG_CUSTOMER_IDENTIFCTN_DOC	FCT_CUST_IDENTIFICATION_DOC	T2T_FCT_CUST_IDENTIFICATION_DOC
5	FCT_COMMON_ACCOUNT_SUMMARY	FCT_INTRA_COMPANY_ACCT_SUMMARY	T2T_FCT_INTRA_COMPANY_ACCT_SUMMARY
6	STG_LOANS_SERVICED	FCT_ACCT_RECOVERY_DETAILS	T2T_FCT_LOANS_SERVICED
7	STG_FIXED_ASSETS_DETAILS	FCT_ACCT_WRITE_OFF_DETAILS	T2T_FCT_FIXED_ASSETS
8	STG_CREDIT_LINE_DETAILS	FCT_ASSETS_SOLD	T2T_FCT_CREDIT_LINE
9	STG_LEGAL_ENTITY_DETAILS	FCT_CAP_INSTR_POSITIONS	T2T_FCT_LEGAL_ENTITY_DETAILS
10	STG_CAP_INSTR_POSITIONS	FFCT_CAP_INSTR_TXNS	T2T_FCT_CAP_INSTR_POSITIONS
11	STG_CAP_INSTR_TXNS	FCT_CAP_INSTR_TXNS	T2T_FCT_CAP_INSTR_TXNS
12	STG_FUND_CIS_COMPOSITION	FCT_FUND_CIS_COMPOSITION	T2T_FCT_FUND_CIS_COMPOSITION
13	STG_MERCHANT_BANKING	FCT_MERCHANT_BANKING	T2T_FCT_MERCHANT_BANKING
14	STG_SPEND_OBLIGATIONS	FCT_SPEND_OBLIGATIONS	T2T_FCT_SPEND_OBLIGATIONS
15	STG_ACCT_WRITE_OFF_DETAILS	FCT_ACCT_WRITE_OFF_DETAILS	T2T_FCT_ACCT_WRITE_OFF_DETAILS
16	STG_RECOVERIES	FCT_ACCT_RECOVERY_DETAILS	T2T_FCT_ACCT_RECOVERY_DETAILS
17	STG_ACCT_RECOVERY_DETAILS	FCT_RECOVERY	T2T_FCT_RECOVERY
18	STG_INSTR_PROPOSED_TXNS	FCT_INSTR_PROPOSED_TXNS	T2T_FCT_INSTR_PROPOSED_TXNS
19	STG_LITIGATION_DETAILS	FCT_LITIGATION_DETAILS	T2T_FCT_LITIGATION_DETAILS
20	STG_SERV_LN_CUST_RELATIONSHIP	FCT_SERV_LN_CUST_RELATIONSHIP	T2T_FCT_SERV_LN_CUST_RELATIONSHIP

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
21	STG_PARTY_ACCOUNT_ROLE_MAP	FCT_ACCT_CUST_RELATIONSHIP	T2T_FACR_STG_PARTY_ACCOUNT_ROLE_MAP
22	STG_CORPORATE_ACTIONS	FCT_CORPORATE_ACTIONS	T2T_FCT_CORPORATE_ACTIONS
23	STG_TRADE_EXECUTION	FCT_TRADE_EXECUTION	T2T_FCT_TRADE_EXECUTION
24	STG_SECURITIZATION_POOL	FCT_SECURITIZATION_POOL	T2T_FCT_SECURITIZATION_POOL
25	STG_SHARE_HOLDING_DETAILS	FCT_SHARE_HOLDING_DETAILS	T2T_FCT_SHARE_HOLDING_DETAILS

Table to Table seeded definitions are provided in the target Dimension tables:

Table 36: The SCDs for the Target Dimension Tables

SCD MAP REFERENCE NUMBER	SOURCE TABLE NAME	TARGET DIMENSION TABLE NAME
469	STG_CREDIT_REASON_MASTER	DIM_CREDIT_REASON
470	STG_COMMODITY_GRADE_MASTER	DIM_COMMODITY_GRADE
471	STG_SUB_NETTING_AGREEMENT	DIM_SUB_NETTING_AGREEMENT
472	STG_LEGAL_PROCEDING_STS_MASTER	DIM_LEGAL_PROCEDING_STATUS

26.1.3 Executing the Various Other T2T Batches

26.1.3.1 Executing T2Ts through Batch Framework

Other Results T2T can be executed by executing task present in the seeded batch FSDF_SOURCED_RUN.

26.1.3.2 Executing SCDs through Seeded Batches

Other Results Dimension SCDs can be executed by executing task present in the SCD batch FSDFINFO_DATA_FOUNDATION_SCD.

Following steps will help you to execute the batch:

1. Navigate to the Batch Execution screen.
2. Select the seeded batch
   - FSDFINFO_DATA_FOUNDATION_SCD for target Dimension tables
   - FSDF_SOURCED_RUN for target Fact tables without RUNSkey
   - FSDF_EXE_RUN for FCT_SECURITIZATION_POOL which consists of RUNSkey.
3. Select the AS_OF_DATE for which source customer information is required to be loaded into the table.
4. Click Execute Batch.
5. Monitor the status of the batch from Batch Monitor screen of OFSAAI.

> **NOTE** While executing through batch, the RUN Skey will be defaulted to -1.

26.1.3.3 Execution through Run Management

These T2Ts are part of Financial Services Data Foundation Sourced Run. The process can be executed through the Seeded Run Financial Services Data Foundation Execution Run.

- T2T_FCT_ENTITY_PARENT_INFO
- T2T_FCT_ISSUED_INSTR_POSITIONS
- T2T_FCT_CUST_IDENTIFICATION_DOC
- T2T_FCT_INTRA_COMPANY_ACCT_SUMMARY
- T2T_FCT_ACCT_RECOVERY_DETAILS
- T2T_FCT_ACCT_WRITE_OFF_DETAILS
- T2T_FCT_ASSETS_SOLD
- T2T_FCT_CAP_INSTR_POSITIONS
- T2T_FCT_CAP_INSTR_TXNS
- T2T_FCT_CREDIT_LINE
- T2T_FCT_FIXED_ASSETS
- T2T_FCT_FUND_CIS_COMPOSITION
- T2T_FCT_INSTR_PROPOSED_TXNS
- T2T_FCT_LEGAL_ENTITY_DETAILS
- T2T_FCT_LITIGATION_DETAILS

- T2T_FCT_LOANS_SERVICED
- T2T_FCT_MERCHANT_BANKING
- T2T_FCT_PAYMENTS_SUMMARY
- T2T_FCT_RECOVERY
- T2T_FCT_SPEND_OBLIGATIONS
- T2T_FCT_SERV_LN_CUST_RELATIONSHIP
- T2T_FACR_STG_PARTY_ACCOUNT_ROLE_MAP
- T2T_FCT_CORPORATE_ACTIONS
- T2T_FCT_TRADE_EXECUTION
- T2T_FCT_SECURITIZATION_POOL

> **NOTE** When executing through Run, the RUNSkey will be auto-generated and stamped against each record.

Error Messages

In the log file present in the:

- **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE** folder for Dimension tables
- **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA** folder for T2Ts This is the most common error message:
- Unique Constraint Violation : This occurs when attempting re-load or loading existing records for the already executed AS_OF_DATE.

26.1.4 Checking the Execution Status

The status of execution can be monitored in the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log for Dimension tables can be accessed on the application server in the directory **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE**. The file name consists of the Batch Execution ID.

The execution log for T2Ts can be accessed on the application server in the directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name consists of the Batch Execution ID. Following are the error log tables in atomic schema:

- FCT_CUST_IDENTIFICATION_DOC$
- FCT_ENTITY_PARENT_INFO$
- FCT_INTRA_COMPANY_ACCT_SUMMARY$
- FCT_ISSUED_INSTR_POSITIONS$
- FCT_ACCOUNT_POSTION_PAIR$
- FCT_ACCT_RECOVERY_DETAILS$
- FCT_ACCT_WRITE_OFF_DETAILS$
- FCT_ASSETS_SOLD$
- FCT_CAP_INSTR_POSITIONS$
- FCT_CAP_INSTR_TXNS$
- FCT_CREDIT_LINE$
- FCT_FIXED_ASSETS$
- FCT_FUND_CIS_COMPOSITION$
- FCT_INSTR_PROPOSED_TXNS$
- FCT_LEGAL_ENTITY_DETAILS$
- FCT_LITIGATION_DETAILS$
- FCT_LOANS_SERVICED$
- FCT_MERCHANT_BANKING$
- FCT_PAYMENTS_SUMMARY$
- FCT_RECOVERY$
- FCT_SPEND_OBLIGATIONS$
- FCT_SERV_LN_CUST_RELATIONSHIP$
- FCT_ACCT_CUST_RELATIONSHIP$
- FCT_CORPORATE_ACTIONS$
- FCT_TRADE_EXECUTION$
- FCT_SECURITIZATION_POOL$

26.1.5 Various Other Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

27 Basel Processing to FSDF Results Integration

This chapter provides information about Basel Processing to FSDF Results Integration in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of Basel Processing to FSDF Results Integration Tables
- Overview of Basel Processing to FSDF Results Integration
- Executing the BASEL Processing to FSDF Results Integration T2Ts
- Checking the Execution Status
- BASEL Processing to FSDF Results Integration Results T2Ts

27.1 Overview of Basel Processing to FSDF Results Integration Tables

As part of Basel processing to FSDF results integration, FSDF tables are loaded from Basel Processing tables using Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores integrated results:

- FCT_FORECAST_REG_CAP_SUMMARY
- FCT_MITIGANT_REG_CAPITAL
- FCT_MR_CAPITAL_SUMMARY
- FCT_MR_VAR_PORTFOLIO_SUMMARY
- FCT_MR_VAR_SUMMARY
- FCT_REG_ACCT_MITIGANT_MAPPING
- FCT_REG_CAP_PLCD_COLL_SUMMARY
- FCT_REG_CAP_POOL_SUMMARY
- FCT_REG_CP_CAPITAL_SUMMARY
- FCT_REG_LE_CAPITAL_SUMMARY
- FCT_REG_OR_CAPITAL_SUMMARY
- FCT_REG_POOL_MITIGANT_MAP
- FCT_REG_CAP_ACCOUNT_SUMMARY

NOTE As part of Basel processing results to FSDF integration, FSDF is packaging the forementioned T2Ts. These are optional T2Ts that will be deployed only when OFS_CAP_ADQ_PACK is installed.

27.2 Overview of Basel Processing to FSDF Results Integration

Table-to-Table seeded definitions are provided for loading data into the target tables:

Table 37: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	FSI_FORECAST_RWA, FSI_FORECAST_RWA_ALLOC_REP	FCT_FORECAST_REG_CAP_SUMMARY	T2T_FCT_FORECAST_REG_CAP_SUMMARY
2	FCT_MITIGANTS, FCT_SUB_EXPOSURES	FCT_MITIGANT_REG_CAPITAL	T2T_FCT_MITIGANT_REG_CAPITAL
3	FCT_MARKET_RISK_COM_CAPITAL, FCT_MARKET_RISK_EXPOSURES	FCT_MR_CAPITAL_SUMMARY	T2T_FCT_MR_CAPITAL_SUMMARY_FMRCC
4	FCT_MARKET_RISK_EQ_CAPITAL, FCT_MARKET_RISK_EXPOSURES	FCT_MR_CAPITAL_SUMMARY	T2T_FCT_MR_CAPITAL_SUMMARY_FMREQC
5	FCT_MARKET_RISK_FOREX_CAPITAL, FCT_MARKET_RISK_EXPOSURES	FCT_MR_CAPITAL_SUMMARY	T2T_FCT_MR_CAPITAL_SUMMARY_FMRFRXC
6	FCT_MARKET_RISK_IR_CAPITAL, FCT_MARKET_RISK_EXPOSURES	FCT_MR_CAPITAL_SUMMARY	T2T_FCT_MR_CAPITAL_SUMMARY_FMRIRC
7	FCT_MR_VAR_SUMMARY_DATA	FCT_MR_VAR_PORTFOLIO_SUMMARY	T2T_FCT_MR_VAR_PORTFOLIO_SUMMARY

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
8	FCT_MR_VAR_SUMMARY_DATA, FCT_MR_VAR_TOTAL_DATA	FCT_MR_VAR_SUMMARY	T2T_FCT_MR_VAR_SUMM ARY
9	EXP_MITIGANT_MAPPING	FCT_REG_ACCT_MITIGANT_MAPPING	T2T_FCT_REG_ACCT_MITIGANT_MAPPING
10	FSI_PLACED_COLLATERAL	FCT_REG_CAP_PLCD_COLL_SUMMARY	T2T_FCT_REG_CAP_PLCD_COLL_SUMMARY
11	FCT_NETTABLE_POOL	FCT_REG_CAP_POOL_SUMMARY	T2T_FCT_REG_CAP_POOL_SUMMARY
12	FCT_REG_COUNTERPARTY_CVA, FCT_NETTABLE_POOL	FCT_REG_CP_CAPITAL_SUMMARY	T2T_FCT_REG_CP_CAPITAL_SUMMARY
13	FCT_STANDARD_ACCT_HEAD	FCT_REG_LE_CAPITAL_SUMMARY	T2T_FCT_REG_LE_CAPITAL_SUMMARY
14	FCT_OPS_RISK_DATA	FCT_REG_OR_CAPITAL_SUMMARY	T2T_FCT_REG_OR_CAPITAL_SUMMARY
15	EXP_MITIGANT_MAPPING	FCT_REG_POOL_MITIGANT_MAP	T2T_FCT_REG_POOL_MITIGANT_MAP
16	FCT_NON_SEC_EXPOSURES, FCT_SUB_EXPOSURES	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_NON_SEC_EXPOSURES
17	FCT_SEC_EXPOSURES, FCT_SUB_EXPOSURES	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_SEC_EX POSURES
18	FCT_NON_SEC_EXPOSURES,	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_NON_SEC_EXPOSURES_CHILD
19	FCT_NON_SEC_EXPOSURES	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_NON_SEC_EXPOSURES_PARENT
20	FCT_SEC_EXPOSURES	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_SEC_EXPOSURES_CHILD
21	FCT_SEC_EXPOSURES	FCT_REG_CAP_ACCOUNT_SUMMARY	T2T_FRCAS_FCT_SEC_EXPOSURES_PARENT

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
22	FCT_MARKET_RISK_EXPOSURES	FCT_REG_MARKET_RISK_EXPOSURES	T2T_FCT_REG_MARKET_RISK_EXPOSURES

27.3 Executing the BASEL Processing to FSDF Results Integration T2Ts

For Basel FSDF integration, you must have FSDF, and Basel installed on the same INFODOM. Also, you must ensure that FSDF and Basel are running the same version.

There are two ways to integrate Basel and FSDF:

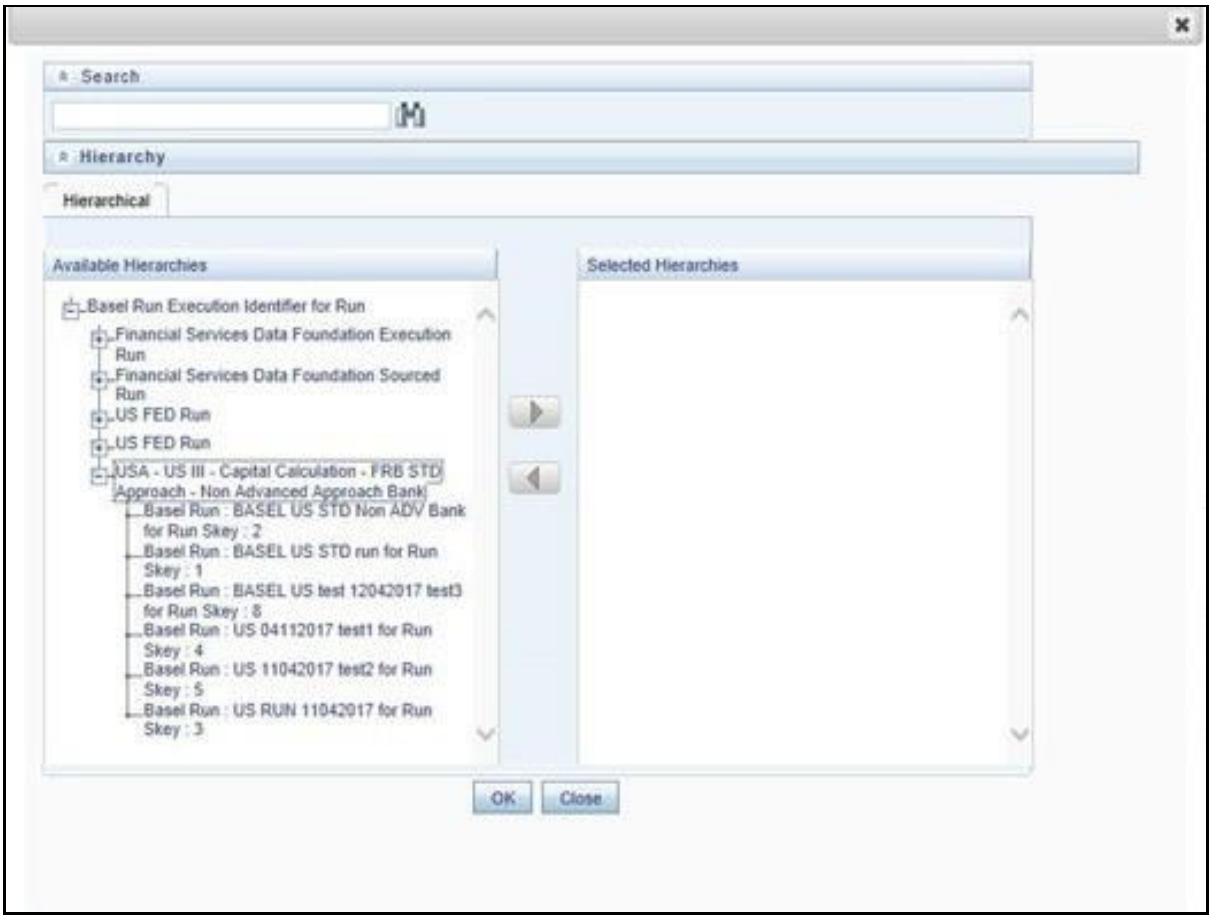
1. Creating Integrated Run at Implementation Site: During implementation, you can merge the tasks of both BASEL and FSDF and create an integrated Run to execute each time. The processes inside Run should be ordered as Basel first, then FSDF, and finally the Basel FSDF Integration process. In this Run, the Basel processing area and the FSDF results area tables must have the same Run SKEY across all tables.

> **NOTE** For BASEL-FSDF Integration Run, please use the FSDF Run Management screen as the Request Report Flag, Override Report Flag, and Approve Report Flag options are not available in the Basel Run Management Screen to enable the Reporting Flag.

2. Using approved Basel Run Execution ID in FSDF Run: In this case, you can use the out-of-the-box Basel Run as is for execution. After the execution, if the values are correct, you can execute the out-of-the-box FSDF Run by selecting the required Basel Run SKEY from Run Management screen. In this case, Basel processing area has one RUN SKEY and for the same data, FSDF has a diffferent RUN SKEY in FSDF results area tables, where the data is getting reported. Sample report generation is as follows:
3. Login to Oracle Financial Services Analytical Applications interface with your credentails.
4. Navigate to Applications > Financial Services Data Foundation > Run Management > Run Management.
5. Select Run and click Run Execution Summary icon.
6. The Run Details and Run Exectution Parameters window is displayed.

7. Enter the Run Name and Run Execution Description. The Basel Run Execution Identifier and FIC MIS Date is auto-populated from the Basel Run report used.
8. Click Execute.

> **NOTE** Resave Hierarchy HFSDF004 (FSDF Basel Run Execution Identifier for Run) after Basel execution for getting values in this Basel Run Execution Identifier.



9. Select only one Basel Run from the Available Heirarchies for the execution and click OK. The Run Management Summary window is displayed.

27.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution ID. Following are the error log tables in atomic schema:

- FCT_FORECAST_REG_CAP_SUMMARY$
- FCT_MITIGANT_REG_CAPITAL$
- FCT_MR_CAPITAL_SUMMARY$
- FCT_MR_VAR_PORTFOLIO_SUMMARY$
- FCT_MR_VAR_SUMMARY$
- FCT_REG_ACCT_MITIGANT_MAPPING$
- FCT_REG_CAP_PLCD_COLL_SUMMARY$
- FCT_REG_CAP_POOL_SUMMARY$
- FCT_REG_CP_CAPITAL_SUMMARY$
- FCT_REG_LE_CAPITAL_SUMMARY$
- FCT_REG_OR_CAPITAL_SUMMARY$
- FCT_REG_POOL_MITIGANT_MAP$
- FCT_REG_CAP_ACCOUNT_SUMMARY$

27.5 BASEL Processing to FSDF Results Integration Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

28 LLFP Processing to FSDF Results Integration

This chapter provides information about LLFP Processing to FSDF Results Integration in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview of LLFP Processing to FSDF Results Integration Tables
- Overview of LLFP Processing to FSDF Results Integration
- Executing the LLFP Processing to FSDF Results Integration T2Ts
- Checking the Execution Status
- LLFP Processing to FSDF Results Integration Results T2Ts

28.1 Overview of LLFP Processing to FSDF Results Integration Tables

As part of LLFP processing to FSDF results integration, FSDF tables are loaded from LLFP Processing tables using Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. Following are the Results Tables that stores integrated results:

- FCT_LLFP_ACCOUNT_SUMMARY

> **NOTE** As part of LLFP processing results to FSDF integration, FSDF is packaging the aforementioned T2Ts. These are optional T2Ts that will be deployed only when OFS_IFRS_PACK is installed.

28.2 Overview of LLFP Processing to FSDF Results Integration

Table-to-Table seeded definitions are provided for loading data into the target tables.

Table 38: Table to Table Seeded Definitions

SL. NO.	SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
1	FCT_ACCOUNT_DETAILS	FCT_LLFP_ACCOUNT_SUMMARY	T2T_FCT_LLFP_ACCOUNT_SUMMARY

28.3 Executing the LLFP Processing to FSDF Results Integration T2Ts

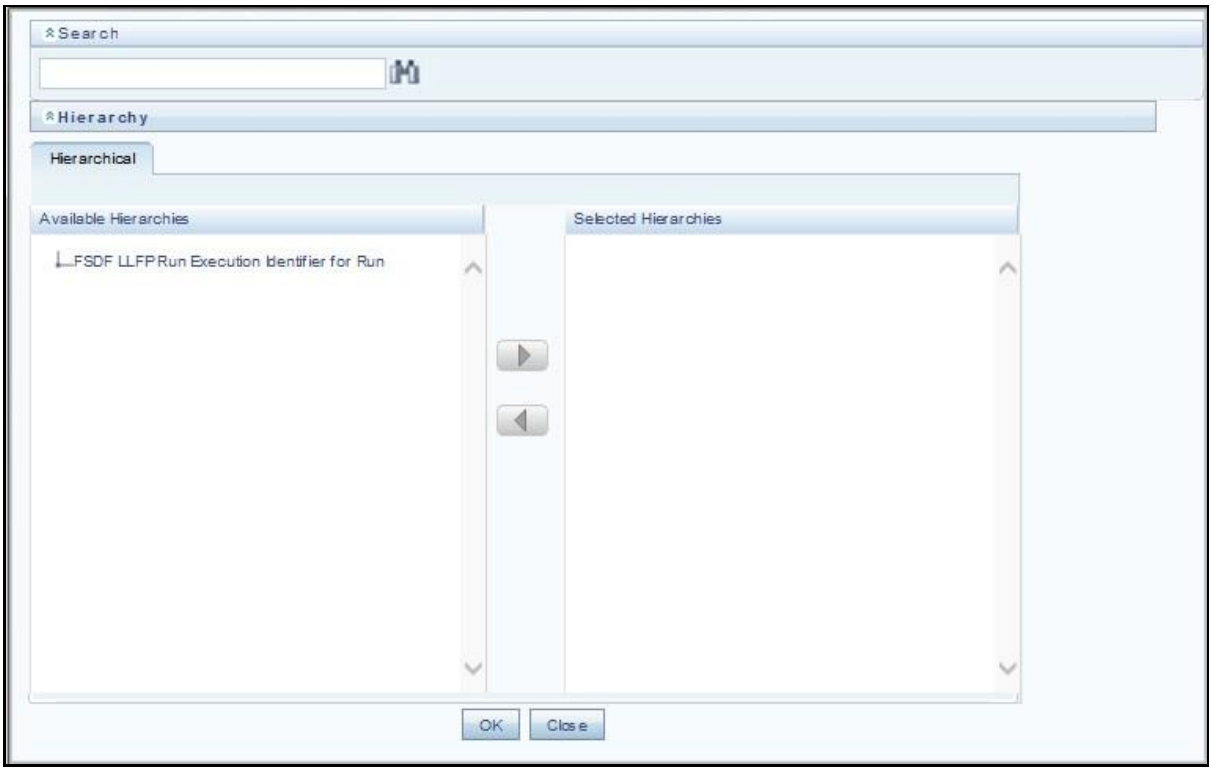
For LLFP FSDF integration, you must have FSDF and LLFP installed on the same INFODOM. There are two ways to integrate LLFP and FSDF:

1. Creating Integrated Run at Implementation Site: During implementation, you can merge the tasks of both LLFP and FSDF and create an integrated Run to execute each time. The processes inside Run should be ordered as LLFP first, then FSDF, and finally the LLFP FSDF Integration process. In this Run, the LLFP processing area and the FSDF results area tables must have the same Run SKEY across all tables.

> **NOTE** For LLFP-FSDF Integration Run, please use the FSDF Run Management screen as the Request Report Flag, Override Report Flag, and Approve Report Flag options are not available in the LLFP Run Management Screen to enable the Reporting Flag.

2. Using approved LLFP Run Execution ID in FSDF Run: In this case, you can use the out-of-the-box LLFP Run as is for execution. After the execution, if the values are correct, you can execute the out-of-the-box FSDF Run by selecting the required LLFP Run SKEY from Run Management screen. In this case, LLFP processing area has one RUN SKEY and for the same data, FSDF has a diffferent RUN SKEY in FSDF results area tables, where the data is getting reported. Sample report generation is as follows:
3. Login to Oracle Financial Services Analytical Applications interface with your credentails.
4. Navigate to Applications > Financial Services Data Foundation > Run Management > Run Management.
5. Select Run and click Run Execution Summary icon.
6. The Run Details and Run Exectution Parameters window is displayed.
7. Enter the Run Name and Run Execution Description. The LLFP Run Execution Identifier and FIC MIS Date is auto-populated from the LLFP Run report used.
8. Click Execute.

> **NOTE** Resave Hierarchy HFSDF007 (FSDF LLFP Run Execution Identifier for Run) after LLFP execution for getting values in this LLFP Run Execution Identifier.



9. Select only one LLFP Run from the Available Heirarchies for the execution and click OK. The Run Management Summary window is displayed.

28.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

> **NOTE** For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution ID. Following is the error log table in the atomic schema:

- FCT_LLFP_ACCOUNT_SUMMARY$

28.5 LLFP Processing to FSDF Results Integration Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

29 LRS Pack Processing to FSDF Results Integration

This chapter provides information about LRS pack (Liquidity Risk Solutions pack, which was formerly Liquidity Risk Management) Processing to FSDF Results Integration in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section. The LRS pack consists of these two application IDs:

- LRM_LCR (for Liquidity Coverage Ratio)
- LRM_DIC (for Deposit Insurance)

This chapter includes the following topics:

- Overview of LRS Pack Processing to FSDF Results Integration Tables
- Overview of LRS Pack Processing to FSDF Results Integration
- Executing the LRS Pack Processing to FSDF Results Integration T2Ts
- Checking the Execution Status
- LRS Pack Processing to FSDF Results Integration Results T2Ts

29.1 Overview of LRS Pack Processing to FSDF Results Integration Tables

As part of LRS pack processing to FSDF results integration, FSDF tables are loaded from LRS pack processing tables using Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework. These are the Result tables that store integrated results:

- FCT_LRM_ACCOUNT_SUMMARY
- FCT_DEP_INS_ACCT_PARTY_DETL
- FCT_DEP_INS_BENEFICIARY_DTL

> **NOTE** As part of LRS pack processing results to FSDF integration, FSDF packages the T2Ts mentioned in the next section. These are optional T2Ts that are deployed only when OFS_TR_PACK is installed.

29.2 Overview of LRS Pack Processing to FSDF Results Integration

These are the Table-to-Table seeded definitions to load data into the target tables:

Table 39: Table to Table Seeded Definitions

SOURCE TABLE NAME	TARGET TABLE NAME	T2T DEFINITION NAME
FSI_LRM_INSTRUMENT	FCT_LRM_ACCOUNT_SUMMARY	T2T_FCT_LRM_ACCOUNT_SUMMARY
FCT_DEPOSIT_INSURANCE_DETAILS	FCT_DEP_INS_ACCT_PARTY_DETL	T2T_FCT_DEP_INS_ACCT_PARTY_DETL
FCT_DEPOSIT_INSURANCE_DETAILS	FCT_DEP_INS_BENEFICIARY_DTL	T2T_FCT_DEP_INS_BENEFICIARY_DTL

29.3 Executing the LRS Pack Processing to FSDF Results Integration T2Ts

For LRS Pack FSDF integration, you must have FSDF and LRS pack installed on the same INFODOM. There are two ways to integrate LRS pack and FSDF:

1. **Creating Integrated Run at Implementation Site**: During implementation, you can merge the tasks of both LRS pack and FSDF, and create an integrated Run to execute each time. The processes inside Run must be in the sequence LRS pack first, and then FSDF, and finally the LRS FSDF Integration process. In this Run, the LRS pack processing area and the FSDF results area tables must consist of the same Run SKEY across all tables.

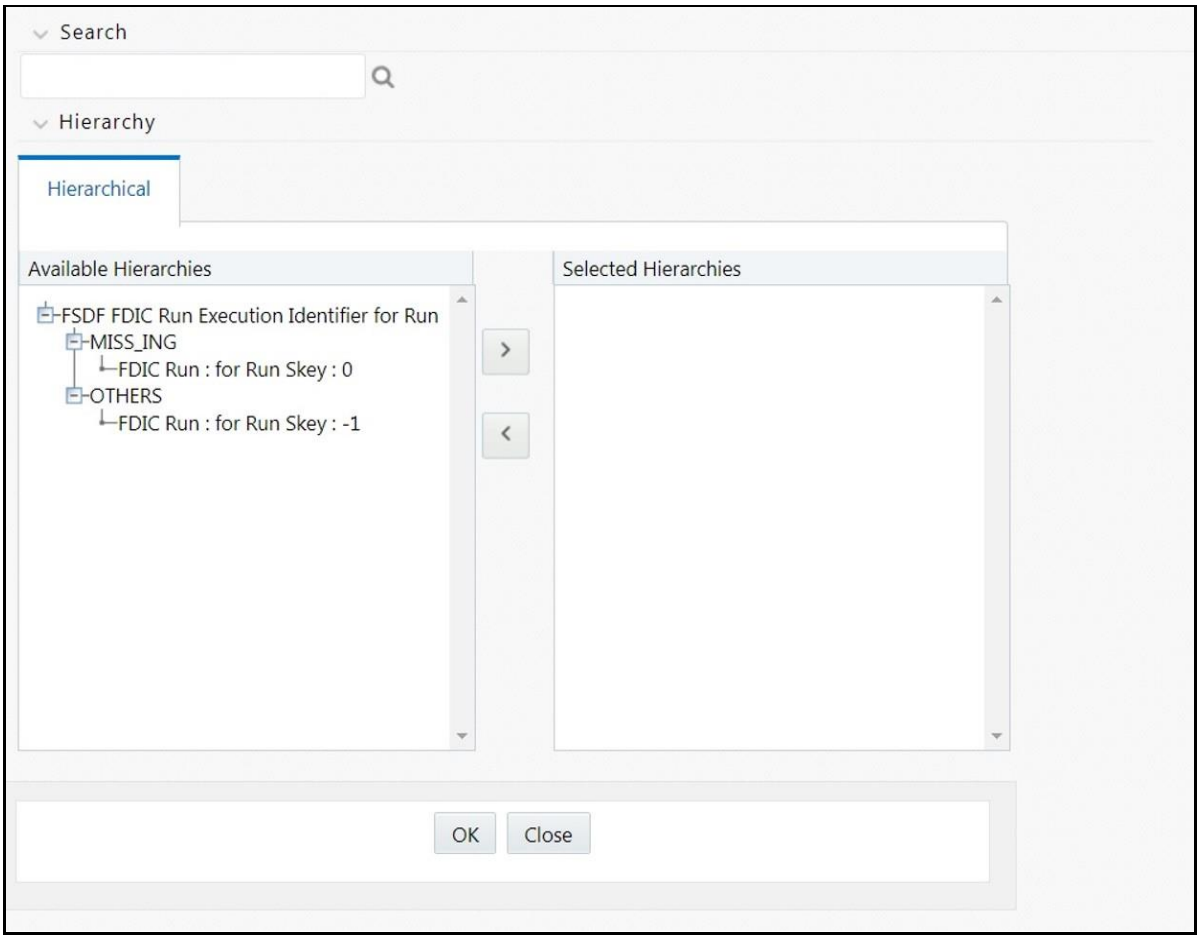
> **NOTE** The Request Report Flag, Override Report Flag, and Approve Report Flag options are not available in the LRS Run Management Screen to enable the Reporting Flag. Therefore, for LRS-FSDF Integration Run, use the FSDF Run Management screen.

2. **Using approved LRS Run Execution ID in FSDF Run**: In this case, you can use the out-of-the-box LRS pack Run as is for execution. After the execution, if the values are correct, you can execute the out-of-the-box FSDF Run by selecting the required LRS Run SKEY from Run Management screen. In this case, LRS pack processing area consists of one RUN SKEY and for the same data, FSDF consists of a different RUN SKEY in FSDF results area tables, where the data is getting reported. To generate a sample report, follow these steps:
   a. Login to Oracle Financial Services Analytical Applications interface with your credentials.
   b. Navigate to **Applications** > **Financial Services Data Foundation** > **Run Management** > **Run Management**.
   c. Select **Run** and click the **Run Execution Summary** icon.
   d. The **Run Details and Run Execution Parameters** window appears.

e. Enter the **Run Name** and **Run Execution Description**. The LRS Run Execution Identifier and FIC MIS Date are auto-populated from the LRS Run report used.

f. Click **Execute**.

NOTE After LRS execution, to get values in this LRS Run Execution Identifier, **Resave** Hierarchy HFSDF006 (FSDF LRS Run Execution Identifier for Run).



g. Select only one LRS Run from the Available Hierarchies for the execution and click **OK**. The **Run Management Summary** window appears.

29.4 Checking the Execution Status

The status of execution can be monitored using the Batch Monitor screen.

NOTE For a more comprehensive coverage of configuration and execution of a batch, see OFS Analytical Applications Infrastructure User Guide.

The status messages in Batch Monitor are:

- N - Not Started
- O - On Going
- F - Failure
- S - Success

The execution log can be accessed on the application server in the following directory **ftpshare/logs/<Run_Date>/FSDFINFO/LOAD DATA**. The file name will have the batch execution ID. Following is the error log table in the atomic schema:

- FCT_LRM_ACCOUNT_SUMMARY$
- FCT_DEP_INS_ACCT_PARTY_DETL$
- FCT_DEP_INS_BENEFICIARY_DTL$

29.5 LRS Pack Processing to FSDF Results Integration Results T2Ts

T2T definitions can be retrieved as an excel document for reference from the metadata browser of the Unified Metadata Manager (UMM) component of OFSAAI.

30 Metadata Browser

This chapter provides information about Metadata Browser in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Overview
- Object View
- Metadata Publish
- Metadata Object to Application Map

30.1 Overview

Metadata Browser (MDB) with an Object and an Application view, provides a common repository of metadata objects created in Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) and Oracle Financial Services Analytical Applications (OFSAA) hosted in OFSAAI. Using this view, you can identify the usage of base objects in higher level objects and the mapping of Objects to Application. It enables traceability and impact analysis to the user. It also allows users to view the data flow and the work flow of the application and understand the usage of objects within the application.

The visualization of MDB supports Application view and Object view. In Application view, you can browse through the metadata created using the Applications hosted in OFSAAI. In object view, you can view the metadata created in OFSAAI.

30.2 Object View

Object view provides the detailed view of the Object. It comprises of basic details, detailed properties, dependencies, usage in higher level Object and Applications consuming the Metadata objects. Object view provides the option to navigate to its dependent or higher level usage objects. Object view enables the user to identify the usage and its dependencies across other objects.

Following are the steps to be followed to migrate the Objects to the metamodel structure: The Object view will provide the following areas in Financial Service Data Foundation:

- Data Foundation Metadata
- Target Data Model
- Data Mapping
- Data File Mapping

- Data Transformation
- Data Quality Rules
- Data Quality Groups
- Process Metadata
- Process

30.3 Metadata Publish

In order to publish the relevant metadata object to the metamodel structure, a seeded batch name <Infodom>MDB has to be executed.

Post successful publish, all the objects can be viewed in the Metadata browser. This step will need to done on regular basis to ensure that metamodel is in sync with underlying metadata.

30.4 Metadata Object to Application Map

To map all the objects the Financial Service data foundation application, a batch name <Infodom>_ MDB_OBJECT_APPLN_MAP has to be executed.

31 Time Dimension Population

This chapter provides information about Time Dimension Population in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

Business data commonly represents information as of a point in time (for example, a balance as of a point in time) or as of a particular span of time (for example, income for the month of March). The rollup of a particular balance depending on their nature could be a simple additive rollup wherein the child member balances are added up to arrive at the parent node balance (for example, Ending Balance) or non additive rollups wherein a node formula is used to specify how to rollup the child member balances (for example, 3 month rolling average).

This chapter includes the following topics:

- Overview of Time Dimension Population
- Prerequisites
- Tables Used by the Time Dimension Population Transformation
- Executing the Time Dimension Population Transformation
- Checking the Execution Status

31.1 Overview of Time Dimension Population

The Time dimension population transformation is used to populate the DIM_DATES table with values between two dates specified by the user.

The database components, used by the transformations are:

1. Database function FN_DIM_DATES
2. Database procedure PROC_DIM_DATES_POPULATION that is called by the function FN_DIM_DATES mentioned earlier.

31.2 Prerequisites

The following are the prerequisites for Time dimension population.

1. All the post install steps mentioned in the OFS Analytical Applications Infrastructure User Guide and the solution installation manual of Oracle Financial Services Data Foundation must be completed successfully.
2. Application User must be mapped to a role that has seeded batch execution function (BATPRO).
3. Before executing a Batch, check if the following services are running on the application server:

- Iccserver
- Router
- AM Server
- Message Server
- OLAP Server

4. For more information on how to check if the services are up and on and how to start the services if you find them not running, refer to Oracle Financial Services Analytical Applications Infrastructure User Guide.
5. Batches will have to be created for executing the function. For more details, refer to section How to Define a Batch.

31.3 Tables Used by the Time Dimension Population Transformation

For more details on viewing the structure of earlier tables, refer to Oracle Financial Services Analytical Applications Data Model Data Dictionary or the OFSDF Erwin Data Model.

31.4 Executing the Time Dimension Population Transformation

You can execute the function from the Operations (formerly Information Command Center (ICC) framework) module of OFSAAI.

This component for OFSDF 8.0.7.0.0 has been seeded with the Batch ID FSDFINFO_DATA_FOUNDATION_SCD, which can be executed from Batch Execution section of OFSAAI. In the Parameter List, enter the Start Date and End Date. For example: '19940101', '19941231'.

NOTE You can load DIM_DATES for a fiscal year for ONE jurisdiction at a time. However, if the dates are populating incorrectly for the selected Jurisdiction, you should revisit the values entered in the DIM_FINANCIAL_YEARS TABLE and then repopulate the DIM_DATES.

You can also define a new Batch and an underlying Task definition from the Batch Maintenance window of OFSAAI. For more information on defining a new Batch, refer to section How to Define a Batch.

To define a new task for a Batch definition:

1. Select the check box adjacent to the newly created Batch Name in the Batch Maintenance window.
2. Click Add (+) button from the Task Details grid. The Task Definition window is displayed.
3. Enter the Task ID and Description.

4. Select Transform Data component from the drop down list.
5. Select the following from the Dynamic Parameters list:
   a. Datastore Type - Select the appropriate datastore type from the list.
   b. Datastore Name - Select the appropriate datastore name from the list.
   c. IP address - Select the IP address from the list.
   d. Rule Name - Select fn_DimDates from the drop down list of available transformations. (This is a seeded Data Transformation which is installed as part of the OFSDF solution installer. If you don't see this in the list, contact Oracle support)
   e. Parameter List – Enter the Start Date and End Date.
      - Start Date – This is the starting date, from which the Transformation will populate DIM_DATES table. This date should be specified in 'YYYYMMDD' format.
      - For example, '20081131'.
      - End Date - This is the end date, to which the Transformation will populate DIM_DATES table. This date should also be specified in 'YYYYMMDD' format.

        For example, '20091231'.
6. Click Save. The Task definition is saved for the selected Batch.
7. Execute the batch.

You can execute a Batch definition from the Batch Execution section of OFSAAI Operations module. The function can also be executed directly on the database through SQLPLUS Details are:

Function Name: FN_DIM_DATES

Parameters: P_BATCH_RUN_ID, P_AS_OF_DATE, P_ST_DT, and P_ED_DT Sample Parameter Values: 'Batch1', '20091231', '20081131', and '20091231'

> **NOTE** This DT should be executed for each year for which data is present in the source table.

31.5 Checking the Execution Status

The Batch execution status can be monitored through Batch Monitor section of OFSAAI Operations module. The status messages in batch monitor are:

- N - Not Started
- O - On Going
- F - Failure

- S – Success

The execution log can also be accessed on the application server in the directory **ftpshare/logs/<Run_Date>/FSDFINFO/RUN EXECUTABLE**, where file name will have the Batch Execution ID.

You can access the database level operations log by querying the FSI_MESSAGE_LOG table. Filter the Batch Run ID column for identifying the relevant log.

> **NOTE** Check the .profile file in the installation home if you are unable to find the above mentioned path.

32 Recommendation for Backdated Run

This chapter provides information about performing a backdated Run in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

There are scenarios that require Run executions for a prior date due to reasons such as, Backdated Regulatory Return Submission or Backdated Management Report Generation, etc.

This chapter includes the following topics:

- Overview of Backdated Run Execution
- Required Changes
- Recommendations

32.1 Overview of Backdated Run Execution

Backdated Run Execution is similar to any regular Run Execution in FSDF. You must reload or correct the data, which must be loaded for the given prior date. Refer to FSDF Runchart and execute the relevant Batches/Runs for the required prior date.

32.2 Required Changes

The following are the prerequisites for Backdated Run Execution:

1. Handling Slowly Changing Dimensions (SCDs)

   Ensure that all SCD executions for the given prior date or period is happened / completed with valid records in all the SCD dimensions. Record Start Date and Record End Date columns must have values.

2. Handling T2T Joins

   By default, all out-of-the-box T2Ts have Joins with SCD dimensions using latest record indicator. This must be modified to pick the correct record using Record Start Date and Record End Date columns of SCD dimension.

32.3 Recommendations

Modifying T2T Joins using Record Start Date and Record End Date columns causes poor performance due to comparison of multiple dates in the query. The following are the recomendations:

1. Copy the existing T2T definitions and modify the Joins to pick Record Start Date and Record End Date instead of latest record indicator.

2. Copy Record Start Date and Record End Date of the existing FSDF Process (under Run Rule Framework) which loads T2T and replace them with new T2T definitions changed above.
3. Whenever a backdated Run is required, modify the Run definition without changing the Run ID to pick the modified Process.

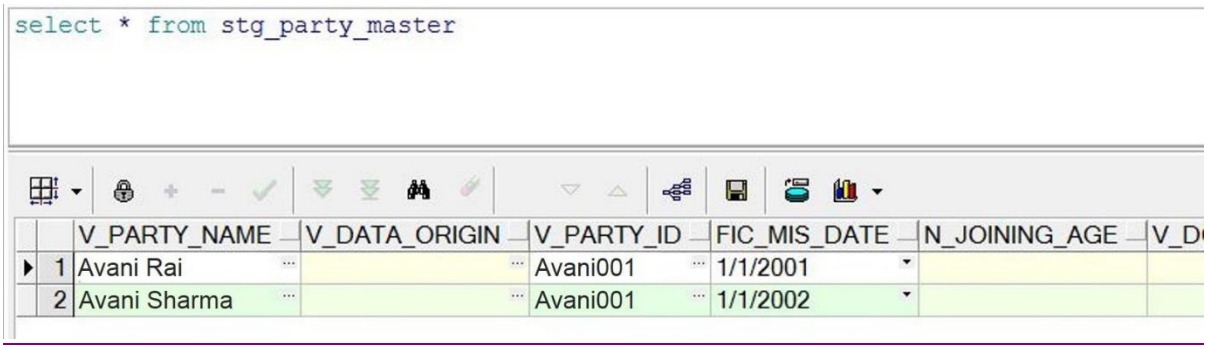
> **NOTE** It is recommended to use this only when there is Backdated Run requirement. Any normal sequential days execution can be performed using out-of-the-box T2Ts and Runs as it results in better performance.

32.4 Backdated Run Execution using Latest Record Indicator (LRI) batch

A new Data Transformation batch UPDATE_BACK_DATED_DIM_LRI is created. This batch supports Backdated Run execution in the Latest Record Indicator (LRI) dimension table. The task in the UPDATE_BACK_DATED_DIM_LRI batch updates LRI Dimension Table for a given Dimension Table and for a given FIC_MIS_DATE. When this batch is triggered for a given FIC_MIS_DATE, the SKeys are updated with the new LRI flag value (F_LATEST_RECORD_INDICATOR = Y/N).

To execute Backdated Run using LRI batch:

1. Add the required data records to their Master table and for the required FIC_MIS_DATE. For example, added two records to STG_PARTY_MASTER. The resultant image is shown below.



> **NOTE** Ensure that V_PARTY_ID is same in this step and the LRI batch execution step.

2. Execute the SCD batch to add the required records from Master table to its Dimension table with the required FIC_MIS_DATEs. For example, executed SCD batch to add records from STG_PARTY_MASTER to DIM_PARTY. The resultant data record in the DIM_PARTY is as shown below:

```
select d.n_party_skey,d.v_party_name,d.fic_mis_date,d.v_party_id,d.f_latest_record_indicator from dim_party d
```

	N_PARTY_SKEY	V_PARTY_NAME	FIC_MIS_DATE	V_PARTY_ID	F_LATEST_RECORD_INDICATOR
1	-1	Others	1/1/1900	OTH	Y
2	0	Missing	1/1/1900	MSG	Y
3	1	Avani Rai	1/1/2001	Avani001	Y

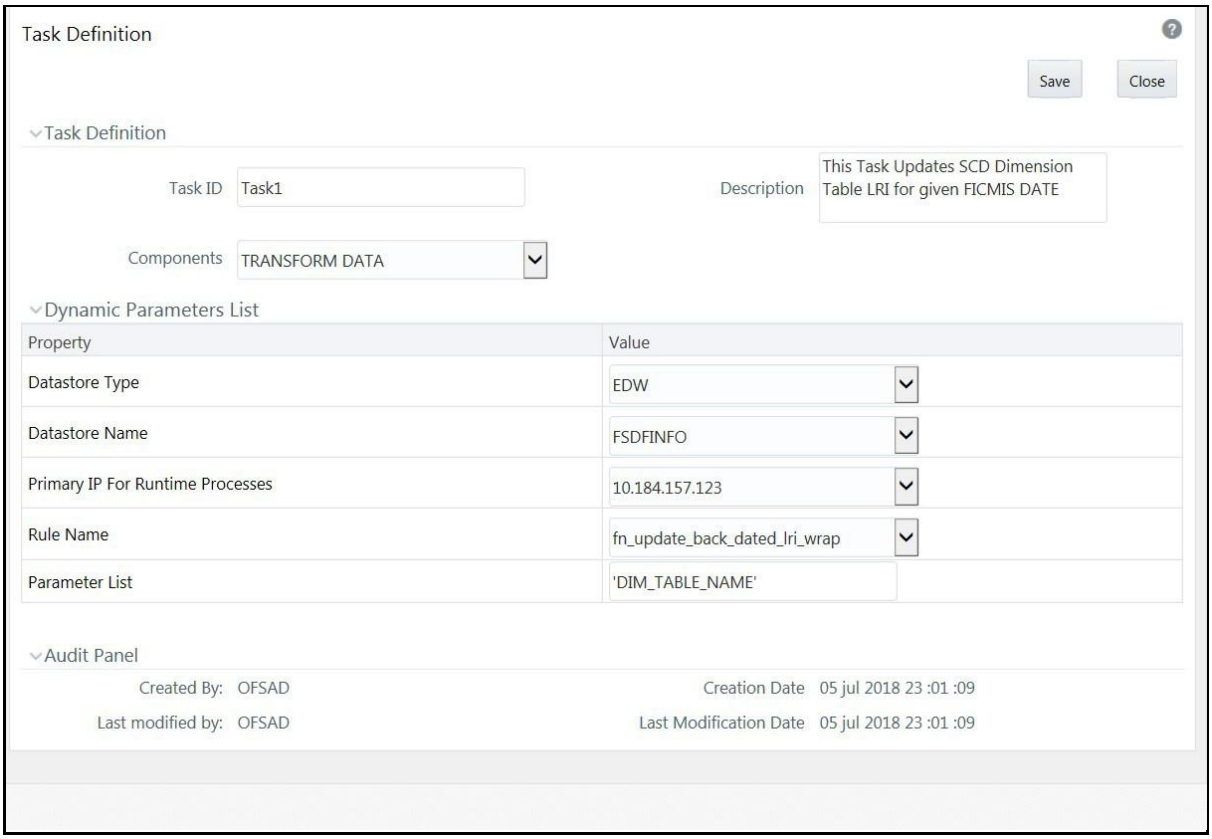
- After adding the first record to DIM_PARTY for the FIC_MIS_DATE 1/1/2001, the flag F_LATEST_RECORD_INDICATOR associated with this data record is set to Y.
- After adding the second record to DIM_PARTY for the FIC_MIS_DATE 1/1/2002, the flag F_LATEST_RECORD_INDICATOR associated with this data record is set to Y, and the flag

```
select d.n_party_skey,d.v_party_name,d.fic_mis_date,d.v_party_id,d.f_latest_record_indicator from dim_party d
```

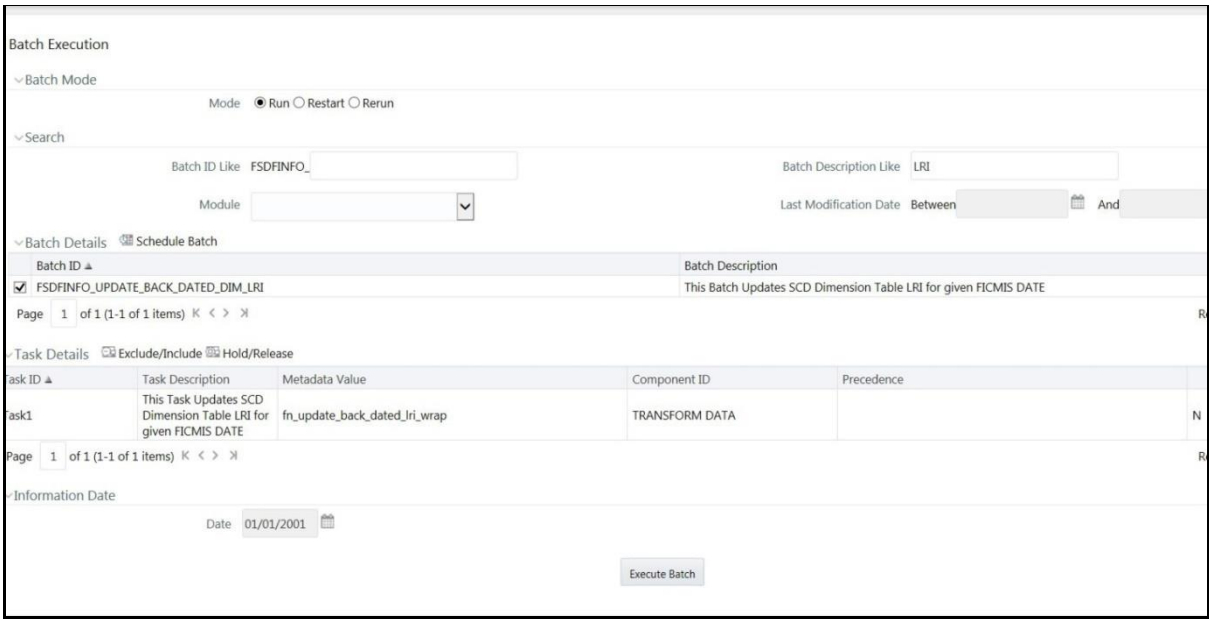
	N_PARTY_SKEY	V_PARTY_NAME	FIC_MIS_DATE	V_PARTY_ID	F_LATEST_RECORD_INDICATOR
1	-1	Others	1/1/1900	OTH	Y
2	0	Missing	1/1/1900	MSG	Y
3	1	Avani Rai	1/1/2001	Avani001	N
4	2	Avani Sharma	1/1/2002	Avani001	Y

- F_LATEST_RECORD_INDICATOR associated with the previous data record (with FIC_MIS_DATE 1/1/2001) is set to N automatically.

3. In Batch Maintenance, add a Task for the LRI Dimension table. In the Parameter List field, mention the Dimension table name (‘DIM_TABLE_NAME’) for which Backdated Run using LRI must be executed. In this example, ‘DIM_TABLE_NAME’ = ‘DIM_PARTY’.



4. In the Batch Execution window, execute the UPDATE_BACK_DATED_DIM_LRI batch for different FIC_MIS_DATEs.



The following are the examples of data record after running the LRI batch with different FIC_MIS_DATEs:

- The image depicts execution of the UPDATE_BACK_DATED_DIM_LRI batch for a backdated record for its FIC_MIS_DATE. Therefore, this record is the Latest Record. In the following image, the LRI batch is executed for the data record with historical FIC_MIS_DATE 1/1/2001. Therefore, the flag F_LATEST_RECORD_INDICATOR associated with FIC_MIS_DATE 1/1/2001 is set to Y. This data record is flagged as the Latest Record, and will be used as default by the system for all future transactions and processes.

```
select d.n_party_skey,d.v_party_name,d.fic_mis_date,d.v_party_id,d.f_latest_record_indicator from dim_party d
```

	N_PARTY_SKEY	V_PARTY_NAME	FIC_MIS_DATE	V_PARTY_ID	F_LATEST_RECORD_INDICATOR
1	-1	Others	1/1/1900	OTH	Y
2	0	Missing	1/1/1900	MSG	Y
3	1	Avani Rai	1/1/2001	Avani001	Y
4	2	Avani Sharma	1/1/2002	Avani001	N

- To change the default data selection, execute the UPDATE_BACK_DATED_DIM_LRI batch for the required data record for its FIC_MIS_DATE. In the following image, the batch is executed for the data record with FIC_MIS_DATE 1/1/2002. Therefore, the flag F_LATEST_RECORD_INDICATOR associated with this FIC_MIS_DATE 1/1/2002 is set to Y and this data record is now flagged as the Latest Record. This record will be used as default by the system for all future transactions and processes. The flag

```
select d.n_party_skey,d.v_party_name,d.fic_mis_date,d.v_party_id,d.f_latest_record_indicator from dim_party d
```

	N_PARTY_SKEY	V_PARTY_NAME	FIC_MIS_DATE	V_PARTY_ID	F_LATEST_RECORD_INDICATOR
1	-1	Others	1/1/1900	OTH	Y
2	0	Missing	1/1/1900	MSG	Y
3	1	Avani Rai	1/1/2001	Avani001	N
4	2	Avani Sharma	1/1/2002	Avani001	Y

F_LATEST_RECORD_INDICATOR associated with the earlier default data record (with FIC_MIS_DATE 1/1/2001) is set automatically to N, indicating that the record with FIC_MIS_DATE 1/1/2001 is not the Latest Record anymore.

5. Monitor the status of the batch in the Batch Monitor screen.

33 Using OFSDF

This chapter provides information about Using OFSDF in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter details on how the OFSDF models are delivered and how they can be installed and configured into the required environment. The first two sections gives you an understanding of the Delivery Mechanism and OFSDF Installation. The Data Dictionary and Download Specifications sections explains how the self-documenting ERwin file includes the data dictionary and Download Specifications within ERwin itself.

In addition, the Extending Data Model section has guidelines for customization and designing the Staging and Results Area of Physical Data Model.

This chapter includes the following topics:

- Delivery Mechanism
- Installing OFSDF
- OFSDF Supporting Documentation
- Data Dictionary
- Download Specifications
- Extending OFSDF Physical Data Model

33.1 Delivery Mechanism

OFSDF being a collection of data model artifacts, includes both a readily deployable model (the OFSDF Physical Data Model) as well as a reference data model (the OFSDF Logical Data Model). Both the data models (Physical and Logical) are delivered as ERwin files. The OFSDF hence requires a license of the ERwin Data modeling tool.

ERwin is the current and only supported modeling tool to view and edit the model. Currently, the minimum versions of ERwin supported are 9.5 and 9.64.

> **NOTE** OFS AAI supports data model upload for data models generated using ERwin 7.1.x, 7.2.x, 7.3.x, 9.0.x, 9.2.x, and 9.5.x versions.

33.2 Installing OFSDF

As detailed earlier, OFSDF requires the Oracle Financial Services Analytical Application Infrastructure release to deploy and operate.

Please refer to the separate OFSDF Installation Guide for step-wise instructions how to configure and install OFSDF into an AAI instance.

33.3 OFSDF Supporting Documentation

The preceding sections have provided an overview of the organization of the OFSDF, and its various component data models. Appendix A explains the naming conventions used in OFSDF data model.

The OFSDF is a detailed model, with nearly 850 entities across both the Staging and Results Area in the physical data model, with another 800+ entities in the Logical Data Model.

Since it is delivered as an ERwin file, all the detailed metadata for the model (Table, Column, Entity, Attribute, Relationship) definitions are embedded in the file itself. The advantage of this approach is that any site-specific customizations to OFSDF can be performed within ERwin, and the updated documentation is retained in the file in the form of additional metadata.

The 2 key detailed artifacts of OFSDF documentation that can be extracted from within the ERwin data model are:

1. Data Dictionary
2. Download Specifications

For more information on Dimension Management and AMHM, refer to the Dimension Management chapter in Oracle Financial Services Analytical Applications Infrastructure User Guide and Dimension Load Procedure section in Oracle Financial Services Analytical Applications Data Model Utilities 7.1 / 7.2 User Guide.

33.4 Data Dictionary

The data dictionary for OFSDF can be extracted from the ERwin file using ERwin's reporting capability, using a pre-built set of templates for data extraction.

Instructions for how to do so are provided in a separate accompanying document that provides step-by-step instructions. See the Technical Whitepaper on Data Model Document Generation, which details how to extract the data dictionary from ERwin section.

33.5 Download Specifications

As detailed in the staging area section, the mapping from the Staging Data Model to use cases, called a download specification provides an efficient way to manage the sourcing of data into the OFSDF staging area. This is done by mapping the staging model at a column level to use cases. This mapping information is embedded in ERwin at a column level using metadata called User Defined Properties (UDPs).

The Download specifications can be extracted using pre-built templates, in a manner similar to the Data Dictionary. Instructions for how to do so are also provided in the Technical Whitepaper on Data Model Document Generation, which details how to extract the data dictionary from ERwin section.

33.6 Extending OFSDF Physical Data Model

Oracle Financial Services Data Foundation (OFSDF) Physical Data Model (PDM) design evolves as the analytical use cases covered by the OFSDF and enhanced as improvements are engineered as a part of the product lifecycle. While the model satisfies a very large number of analytical use cases across Risk, Finance, Marketing, and Compliance subject areas, customers may need to customize the model for a specific installation. These custom changes however may impact the ability of the OFSDF installation to be upgraded to later versions of the product. The guidelines outlined in this section will help minimize the impact of custom changes to the model when the installation needs to be upgraded to a later version of OFSDF.

This section consists of the following sub-sections:

- Customization Process Guidelines
- Staging Area Design Guidelines
- Results Area Design Guidelines
- Upgrading Data Model

33.6.1 Customization Process Guidelines

It is strongly recommended to consult OFSAA Support / Field Engineers / Consulting Staff before making any changes to the PDM for the following reasons:

- Tables in the PDM common Staging Area are designed to meet the complex needs of data sourcing for many different financial services analytical use cases and as such have a large number of columns, and the need for the modification should be reviewed with OFSAA consultants.

The Results Area star schemas have been designed with a set of common fact tables and dimension tables to support integration of results from multiple analytical applications and any customization should be reviewed in order to ensure that the unified reporting capabilities of the model are preserved.

After a review with OFSAA field consultants, an extension to the model should first be logged as a request for product enhancement via the standard support process. This allows:

1. Product support and product management teams to identify if a similar enhancement request was submitted on behalf of another customer so that a uniform Model Enhancement design recommendation can be provided to all customers.
2. OFSDF product management to evaluate if the enhancement request is applicable more broadly to other customers and if the change should in fact is to be taken as a design requirement for subsequent releases.

> **NOTE** OFS AAI supports data model upload for data models generated using ERwin 7.1.x, 7.2.x, 7.3.x, 9.0.x, 9.2.x, and 9.5.x versions.

33.6.2 Staging Area Design Guidelines

Following are the Staging Area Design Guidelines:

1. Ensure that the naming conventions as detailed in Appendix A section are followed.
2. Entity relationships and constraints are enforced through OFSAAI data management toolkit and are not enforced via database referential integrity checks.

   The model should not be changed to enforce referential integrity checks and other data quality checks via database definitions.
3. All Staging Area tables must have a column that identifies the system from where data is sourced (source system ID).
4. The code columns in master data tables and tables that contain dimension data should be designed to hold alphanumeric values.
5. The Domain dictionary maintains the list of attribute domains. New columns must be identified with an existing domain instead of explicitly defining column data type and valid values.See guidelines in Appendix A section on the use of defined Domains.
6. Tables (e.g. reference or look up tables with static data) needed for only a specific application or use case should be a part of the application specific processing area and should not be part of the common Staging Area in OFSDF.
7. OFSDF download specifications identify the tables and columns for which data needs to be sourced for a specific analytical use case. Any new tables and/or column should have its "APPLICATION USAGE" UDP set with the appropriate application value so that the generated download specification includes the customized column and table. The master list of UDP's are maintained as a central dictionary in ERwin.
8. All columns added or modified as a part of the customization should be marked as such:
   - The column level UDP named "CUSTOM" must be marked YES, identifying the column as a custom property.
   - The "Customization Reason" UDP should be specified. Valid values are provided as a drop down list and can be "Pending Enhancement Request" or "Specific to Customer".

The "Type of Change" UDP should be set to the appropriate type of change as provided in the drop down list (Length, Datatype, Logical Name, Description, and Addition).

33.6.3 Results Area Design Guidelines

The Results Area consists of a set of star schemas with conformed dimensions and common fact tables. Integration of results from multiple application use cases is achieved by having common fact tables for customer and account level measures. The design of the results area allows for drill-down and drill-across BI reporting, which should be preserved after customization.

Following are the Results Area Design Guidelines:

1. Ensure that the naming convention for results tables and columns detailed in Appendix A section is followed.
2. Dimensional conformance should be maintained: The same dimensional information should not be represented in different forms. In addition, dimension table design should be compatible with the slowly changing dimension process design and so should have the required columns.
3. The common accounts summary fact table.

   (FCT_COMMON_ACCOUNTS_SUMMARY) consolidates measures at an account level granularity for all applications. Account level attributes captured from source systems in staging and those attributes that do not vary between runs should be part of the common accounts summary table. This enables integrated reporting of account information.

   NOTE Any account level application specific attributes and measures that are computed by applications should be part of the application specific account summary entities.

4. The common customer summary fact table.

   (FCT_COMMON_CUSTOMER_SUMMARY) consolidates measures at a customer level granularity for all applications. Customer level attributes captured from source systems in staging and those attributes that do not vary between runs shouldbe part of the common customer summary table. This enables integrated reporting of customer information.

   NOTE Any customer level application specific attributes and measures that are computed by applications should be part of the application specific customer summary entities.

5. Aggregate Entities: Depending on performance requirements for each application, information can be reported out of aggregate entities. However, a drill through to the base entity from the aggregate entity is mandatory.
6. Reporting and local currency support: Include additional attributes in the fact tables to store reporting and local currency equivalent of base measures. These attributes need to be computed by looking into the exchange rates.

7. Support for full history: Any new tables in the Results area should be designed to support maintenance of full history.

33.6.4 Upgrading Data Model

The model upgrade process is achieved through the erwin Model Compare and Merge utility. Refer to ERwin documentation for details on Menu options, process of comparing, and merging models.

34 Key Business Data Use Cases

This chapter provides information about key business data use cases for the Oracle Financial Services Data Foundation application.

This chapter includes use case on this topic:

- Hypothecated Deposits
- Credit Lines and Commitment Contracts

34.1 Hypothecated Deposits

Hypothecated Deposit is the sum of installments paid to a deposit account, which is netted against loan account. The amount paid to the deposit account does not reduce immediately to pay off the loan installment, however, it accumulates until the total principal and interest amount of the loan is reached. The amount is paid in full and loan account is closed only after deposit balance reaches the total value of the loan. Hypothecated deposits must be netted against the related loans. Deposits, which serve as collateral for loans, are not considered hypothecated deposits.

34.1.1 Usage

Two accounts are captured when handling Hypothecated Deposits. They are:

1. Loan Account with its terms.
2. Deposit Account receiving payment, which is adjusted subject to terms, to repay loan.

These three outcomes occur when loan repayment is made using Hypothecated Deposits:

1. Debtor of the Deposit Account makes payments.
2. Loan continues to accrue interest or as per terms.
3. When deposit amount equals to loan amount, deposit proceeds are transferred to the Loan Account, and then the accounts are closed.

34.1.2 Inferences

These are inferences based on the Hypothecated Deposits usage:

1. Deposit Account operates as a normal Deposit Account.
2. Loan continues to operate as a normal Loan Account.

3. The core banking or source system executes deposit proceeds, which is used to repay loan, as per the configured rules.
4. Until the closure of loan, deposit functions as a mitigant such that, in the event of customer defaulting, the deposit balance is used to repay the loan.

34.1.3 Handling Hypothecated Deposits in OFSDF

The process of adjusting deposit proceeds to repay the Loan Contract is a part of the Deposit and Loan Transaction tables. To handle the Hypothecated Deposits in OFSDF, perform these steps:

1. You can continue to:
   - **f.** Use the Term Deposits table to store deposits. Additionally, perform these tasks:
     - **i.** Set the column STG_TD_CONTRACTS.V_OFFSET_ACCT_NBR to display the Loan Account Number.
     - **ii.** Set the flag column STG_TD_CONTRACTS.F_LIEN_MARKED_IND to True or Y.
     - **iii.** Set the flag column STG_TD_CONTRACTS.F_PRODUCT_LINKED_DEPOSIT_FLAG to True or Y.
   - **g.** Use the Loan Contracts table to store loans.
2. Additionally, store deposit as mitigant in the Mitigant table and perform this task:
   - Set the flag column STG_MITIGANTS.F_CONSENT_TO_ADJUST_MATURITY to True or Y.

34.2 Credit Lines and Commitment Contracts

This section provides information about Credit Lines and Commitment Contracts.

34.2.1 Commitment Contract

Commitment is an assurance provided by the banker to his customer, given that the customer adheres to pre-defined conditions and provides necessary documentation. Then the customer can take up a Credit facility for an amount and/or rate.

34.2.2 Credit Line

Credit Line is the materialized result of commitment and therefore, becomes a Facility.

34.2.2.1 Differences and Similarities between Credit Lines and Commitment Contracts

34.2.2.1.1 Differences between Credit Lines and Commitment Contracts

CREDIT LINE	COMMITMENT CONTRACT
Credit Line utilized is subject to interest accrual.	Does not include the concept of interest.
Subject to credit risk.	Bank makes provisions to get out, if they sense credit risk, as per conditions of the contract. There is no provision to hold capital or loan for a Commitment Contract except if the bank has no provision to back out as per terms of contract.
A credit facility taken up in normal course of business.	Customer going in for a tender requires assurance on availability of Credit at a certain rate to quote a price with certain profitability. Therefore, the customer takes a Commitment Contract before they quote for the tender.
Consists of limits associated with it and limits may include one or multiple interest tiers applicable.	Commitment Contract must be mapped to a Credit Line to ensure that a customer or party level credit exposure caps are adhered. Commitment Contract can be provided to retail or SME without credit lines. It is similar to a pre-approved loan, which is valid for certain terms and date agreed. However, a fee or periodic fee must be paid to keep up the commitment.
Can be utilized by the customer under agreed conditions, without intervention of the banker.	Can be utilized by the customer after going through an abridged credit appraisal process such as providing updated income statements, KYC documents, POA etc., before any credit is extended.
Credit Line provided to a customer is summed up to understand customer or party level exposures.	Commitment Contracts roll into one of the Credit Lines, which is used to estimate total exposure to a customer.
Credit Line is factual.	Commitment Contract is only a commitment.

34.2.2.1.2 Similarities between Credit Lines and Commitment Contracts

Fees must be paid for both Credit Lines and Commitment Contracts. They must be considered for cash flow forecast.

35 Data Quality Rules Execution

This chapter provides information about Data Quality Rules Execution in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- Data Quality Framework
- Data Quality Rules For Staging Tables
- Data Quality Groups for Staging Tables

35.1 Data Quality Framework

Data Quality Framework consists of a scalable rule-based engine which uses a single-pass integration process to standardize, match, and duplicate information across global data. Data Quality Framework within the Infrastructure system facilitates you to define rules and execute them to query, validate, and correct the transformed data existing in an Information Domain.

You can access Data Quality Framework by expanding the Data Integrator Framework within the Unified Metadata Manager section in tree structure of LHS menu.

Data Quality Framework consists of the following sections:

- Data Quality Summary
- Data Quality Group Summary

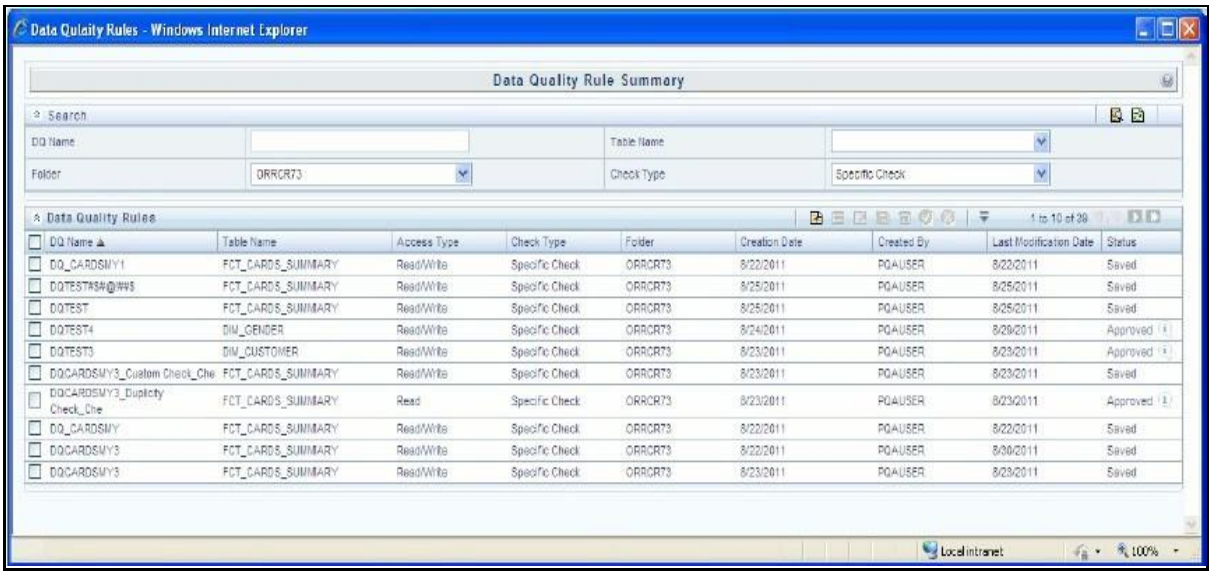
35.1.1 Data Quality Summary

Data Quality Summary within the Data Integrator framework of Infrastructure system facilitates you to create a DQ (Data Quality) definition and define nine specific validation checks based on Range, Data Length, Column Reference/Specific Value, List of Value/Code, Null Value, Blank Value, Referential Integrity, Duplicity, and Custom Check/Business. You can also correct data for range, column reference, list of values, null value, and blank value parameters.

The defined Data Quality Rule checks can be logically grouped and executed together. You (Business Analysts) need to have ETL Analyst function role mapped to access the Data Quality Summary framework within the Infrastructure system.

You can access Data Quality Summary by expanding the Data Quality framework within the Unified Metadata Manager section in tree structure of LHS menu.

Figure 14: Data Quality Rule Summary



The Data Quality Rule Summary screen displays the list of pre-defined Data Quality Rules with the other details such as DQ Name, Table Name, Access Type, Check Type, Folder, Creation Date, Created By, Last Modification Date, and Status of the Rule. A defined rule is displayed in Saved status, until it is Approved/Rejected by the approver. An Approved rule can be grouped in order for execution and a Rejected rule is sent back to the user with the Approver comments.

You can add, view, modify, copy, approve/reject, or delete Data Quality Rules within the Data Quality Rule Summary screen. You can also make use of Search and Pagination options to search for a Data Quality Rule based on DQ Name, Table Name, Folder, or Check Type and view the existing Data Quality Rules within the system.

For more information, refer to Oracle Financial Services Analytical Applications Infrastructure User Manual.

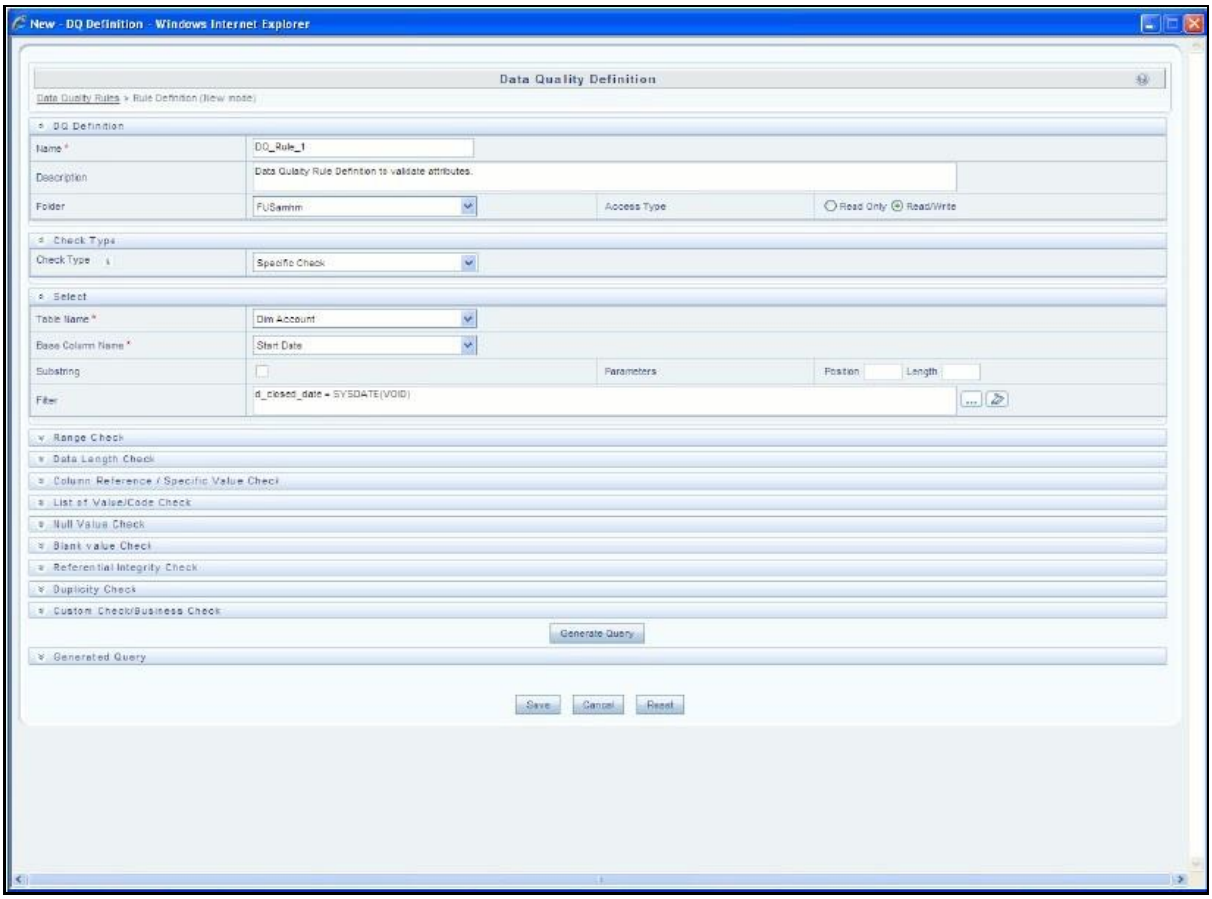
35.1.2 Create Data Quality Rule

You can create a Data Quality Rule definition by specifying the DQ Definition details along with the type of validation check on the required table and defining the required validation conditions to query and correct the transformed data.

To create Data Quality Rule in the Data Quality Rule Summary screen:

1. Click Add button in the Data Quality Rules tool bar. Add button is disabled if you have selected any check box in the grid. The Data Quality Definition screen is displayed.

Figure 15: Data Quality Definition



2. In the DQ definition section, perform the following:
   - Enter the Name by which you can identify the DQ definition.
   - Enter a description or related information about the definition.
   - Select the Folder (available for selected Information Domain) from the drop down list.
   - Select the Access Type as either Read Only or Read/Write.
3. Select the Check Type from the drop down list. You can mouse-over i icon for information.
   - Select Specific Check, if the defined conditions are based on individual checks on a single column.
   - Select Generic Check, if the defined conditions are based on multiple columns of a single base table. These checks are not pre-defined and can be specified (user-defined) as required.

If Specific Check is selected, perform the following:

- Select Table Name and Base Column Name from the drop down list. The listdisplays all the tables which are marked for Data Quality Rule in a data model, which has the table classification property code set to 340.
- (Optional) If you have selected Base Column of type Varchar/Char, select the Substring check box, enter numeric values in Parameters Position and Length fields.

- Click the below button and define the Filter condition using the Specify Expression screen.

- Define the required Validation Checks by selecting the appropriate grid and specify the details. You can define nine specific validation checks based on Range, Data Length, Column Reference/Specific Value, List of Value/Code, Null Value, Blank Value, Referential Integrity, Duplicity, and Custom Check/Business.

For more information, refer to Oracle Financial Services Analytical Applications Infrastructure User Manual.

NOTE A minimum of one Validation check must be defined to generate a query.

- Click Generate Query. The details are validated and the validated query along with the status is displayed in the Generated Query section.

If Generic Check is selected, perform the following:

- Select Table Name from the drop down list. The list displays all the tables which are marked for Data Quality Rule in a data model, which has the table classification property code set to 340.
- Click the below button and define the Filter condition using the Specify Expression screen.
- Click Add button in the Condition grid. The Specify Expression screen is displayed. Define the Condition expression.

  The Expression is displayed with the "IF" and "Else" conditions along with the Severity status as either Error or

WARNING You can change the Severity by selecting from the drop down list.

NOTE You can add an Assignment only when the Severity is selected as Warning. Assignments are added when you want to correct or update record(s) in base column data / selected column data. There can be one or more assignments tagged to a single condition. However, selecting severity as Error indicates there are no corrections and only facilitates in reporting the quantity of bad records.

- Select the check box adjacent to the required Condition expression and click Add button in the Assignment grid. The assignment details are populated.

NOTE You can add an Assignment only if the Severity is Warning. There can be one or more assignments tagged to a single condition.

- Specify the Assignment details as tabulated.

Table 40: Assignment Details

FIELD	DESCRIPTION
Column Name	Select the Column Name from the drop down list.
Assignment Type	Select the Assignment Type as one of the following: No Assignment is the default selected assignment which does not have any target column update, but the message details are pushed. Direct Value - enter the Assigned Value Another Column - select the required Column as Assigned Value from the drop down list. Code - select the required Code as Assigned Value from the drop down list if any code / leaf values exist for the selected base column. If not, you are alerted with a message indicating that No Code values exists for the selected base column.
Assignment Value	Select the Assignment Value from the drop-down list according to the Assignment Type selected.
Message Severity	Select the Message Severity as either 1 or 2 from the drop down list.
Message	Select the required Message for the Severity from the drop down list.

You can also add multiple assignments by clicking Add button in Assignment grid.

NOTE Minimum of one condition needs to be defined to save the Rule.

Click Save. The defined Data Quality Rule definition is displayed in the Data Quality Rule Summary screen with the status as "Saved".

35.1.3 View Data Quality Rule

You can view individual Data Quality Rule definition details at any given point.

To view the existing Data Quality Rule definition in the Data Quality Rule Summary screen:

1. Select the check box adjacent to the required DQ Name.
2. Click View button from the Data Quality Rules tool bar.

The DQ Definition screen displays the details of the selected Data Quality definition. The Audit Trail section at the bottom of DQ Definition screen displays metadata information about the Data Quality Rule defined.

35.1.4 Modify Data Quality Rule

You can update the existing Data Quality Rule definition details except for the Definition Name, Table, and Base Column selected.

To update the required Data Quality Rule definition details in the Data Quality Rule Summary screen:

1. Select the check box adjacent to the required DQ Name.

> **NOTE** You can only edit those rules which have status either as Saved or as Rejected.

2. Click Edit button from the Data Quality Rules tool bar. The Edit button is disabled if you have selected multiple DQ Names. The DQ Definition screen is displayed. Update the details as required. For more information, see Create Data Quality Rule section.
3. Click Save to update the changes.

35.1.5 Copy Data Quality Rule

You can copy the existing Data Quality Rule to quickly create a new DQ definition based on the existing rule details or by updating the required parameters.

To copy an existing Data Quality Rule definition in the Data Quality Rule Summary screen:

1. Select the check box adjacent to the required DQ Name in the list whose details are to be duplicated.
2. Click Copy button from the Data Quality Rules tool bar. Copy button is disabled if you have selected multiple check boxes. The DQ Definition screen is displayed.
3. Edit the DQ definition Name and other details as required. For more information, see Create Data Quality Rule section.
4. Click Save. The defined Data Quality Rule definition is displayed in the Data Quality Rule Summary screen with the status as "Saved".

35.1.6 Approve/Reject Data Quality Rule

You (Authorizer) can Approve a pre-defined Data Quality Rule definition for further execution or Reject an inappropriate DQ definition listed within the Data Quality Rule Summary screen. You should be mapped to DQ Authorizer function role to Approve or Reject a DQ definition.

To Approve/Reject Data Quality Rule in the Data Quality Rule Summary screen:

1. Select the checkbox adjacent to the required DQ Name. Ensure that you select the " Saved" DQ definition based on the Status indicated in the Data Quality Rules grid.
2. Perform one of the following:
   - To Approve the DQ definition, click Approve button. The User Comments screen is displayed. Enter the notes or additional information to the user and click OK. The selected DQ definition is approved and a confirmation dialog is displayed.
   - To Reject the DQ definition, click Reject button. The User Comments screen is displayed. Enter the notes or additional information to the user and click OK.

The selected DQ definition is rejected and a confirmation dialog is displayed.

> **NOTE** The authorizer can approve/reject only one definition at a time.

The Approved/Rejected status of the DQ definition is indicated in the Status column of the Data Quality Rule Summary screen. You can mouse-over i button to view the Approver comments in a pop-up.

35.1.7 Delete Data Quality Rule

You can remove Data Quality Rule definition(s) which are created by you and which are no longer required in the system by deleting from Data Quality Rule Summary screen.

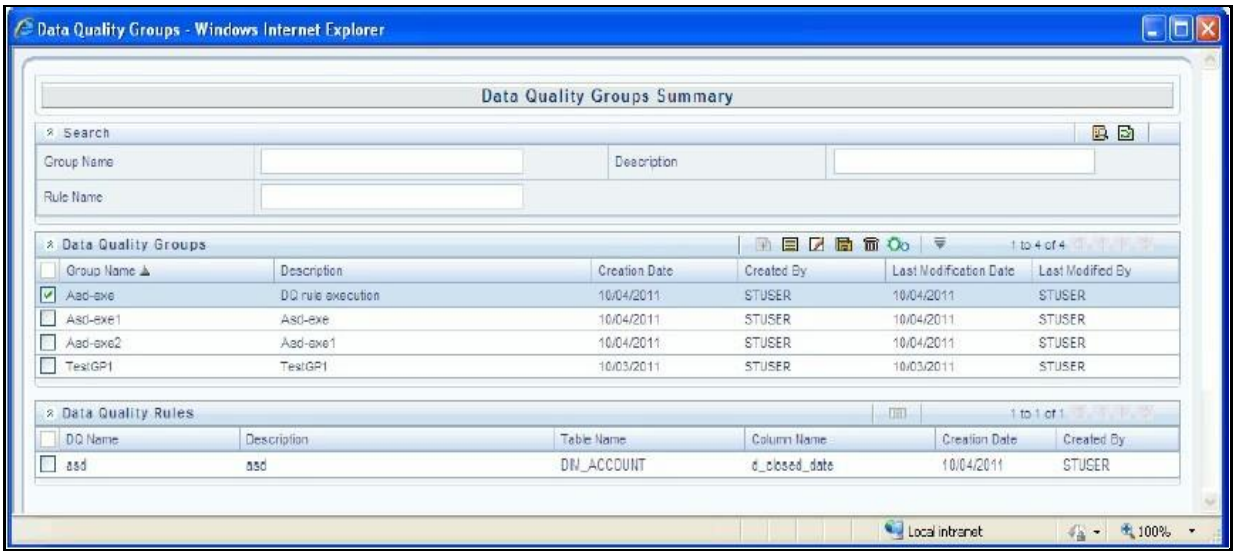
1. Select the check box adjacent to the required DQ Name whose details are to be removed.
2. Click Delete button from the Data Quality Rules tool bar.
3. Click OK to confirm deletion.

35.2 Data Quality Groups Summary

Data Quality Groups Summary within the Data Integrator framework of Infrastructure system facilitates you to logically group the define DQ definitions and schedule for execution. DQ definitions can be executed either through Data Quality Groups Summary screen of Data Integrator framework or in Batch Execution screen of Operations module.

When a Data Quality Group is executed for processing, the details of the execution are captured in a log file. You (Business Analysts) need to have ETL Analyst function role mapped to access the Data Quality Summary framework within the Infrastructure system. You can access Data Quality Groups Summary by expanding the Data Quality framework within the Unified Metadata Manager section in tree structure of LHS menu.

Figure 16: Data Quality Group Summary



The Data Quality Groups Summary screen displays the list of pre-defined Data Quality Groups with the other details such as Group Name, Description, Creation Date, Created By, Last Modification Date, and Last Modified By. You can Create and Execute DQ

Group definitions and view, modify, copy, or delete DQ Group definitions within the Data Quality Groups Summary screen.

You can also make use of Search and Pagination options to search for a DQ Group definition based on Group Name, Description, or Rule Name and view the existing DQ Group definitions within the system.

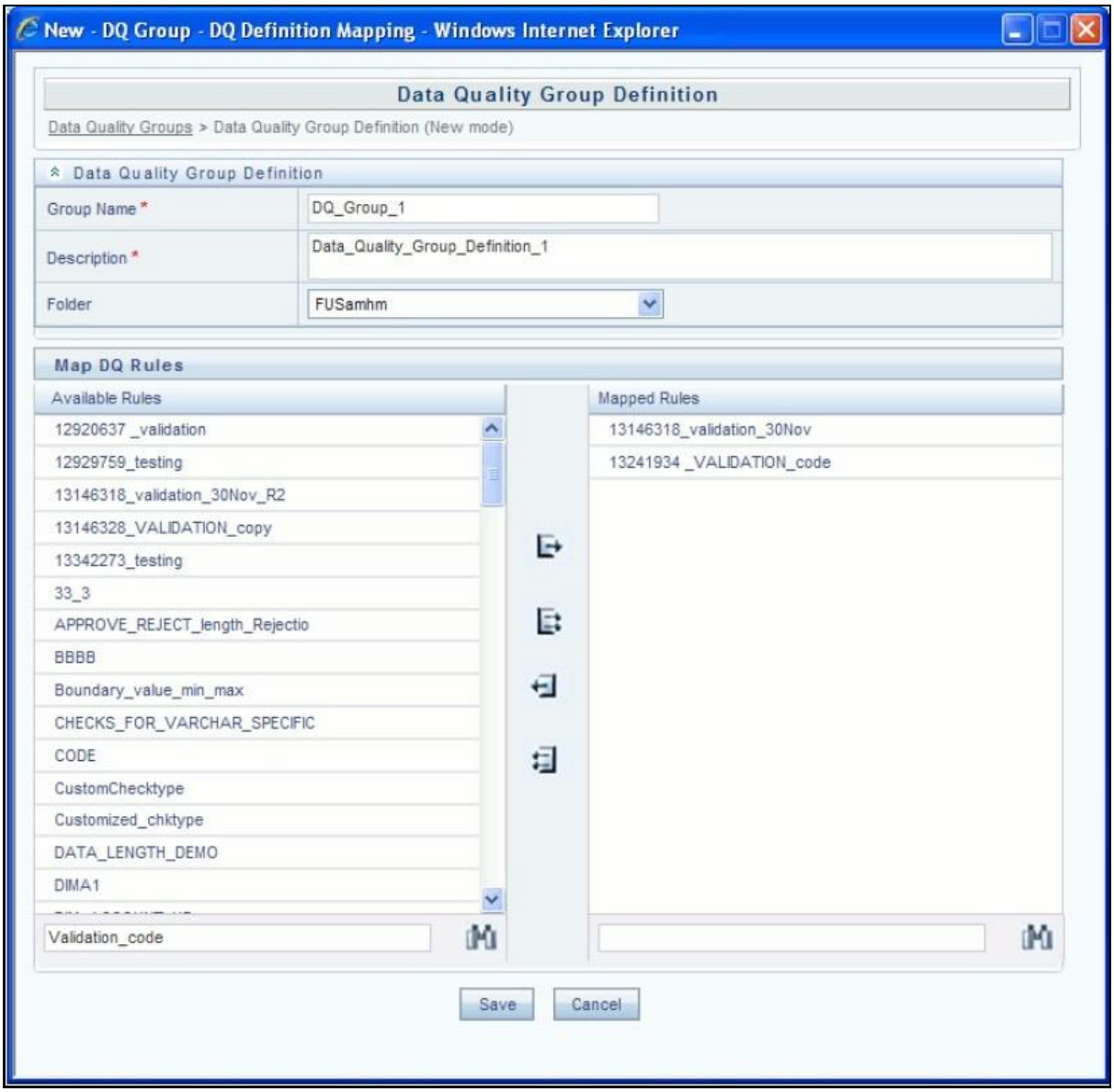
35.2.1 Create Data Quality Group

You can create a DQ Group definition by defining the DQ Definition details and mapping the required DQ Rules which are authorized and approved within the system.

To create DQ Group in the Data Quality Groups Summary screen:

1. Click Add button in the Data Quality Groups tool bar. Add button is disabled if you have selected any check box in the grid. The Data Quality Group Definition screen is displayed.

Figure 17: Data Quality Group Definition



2. In the Data Quality Group Definition section, perform the following:
   - Enter the Group Name by which you can identify the DQ Group.
   - Enter a description or related information about the DQ Group.
   - Select the Folder (available for selected Information Domain) from the drop down list.
3. In the Map DQ Rules section, perform the following:
   - Select the required DQ Rule from the Available Rules list and click Select. You can also search to select a specific DQ Rule by entering the required keyword and clicking Find button.
   - To select all the listed DQ Rules, click Select All.

You can also deselect a DQ Rule by selecting from the Mapped Rules list andclicking Deselect or clicking Deselect All to deselect all the mapped rules. You can search to deselect a specific DQ Rule by entering the

keyword and clicking button. You can search to deselect a specific DQ Rule by entering the keyword and clicking Find button.

4. Click Save. The defined DQ group is listed in the Data Quality Rule Summary screen and can be executed for processing.

35.2.2 Execute Data Quality Group

You can execute a defined DQ Group Definitions along with the mapped Rules and validation checks in the Data Quality Rule Summary screen. You can also execute a DQ Group in the Batch Execution screen of Operations module.

To Execute a DQ Group in the Data Quality Rule Summary screen:

1. Select the checkbox adjacent to the required Group Name.
2. Click Execute button from the Data Quality Groups tool bar. Execute button is disabled if you have selected multiple check boxes. The Group Execution screen is displayed.
3. In the Batch Details section, perform the following:
   - Select the MIS Date using the Calendar. MIS Date refers to the date with which the data for the execution would be filtered. In case MIS date is not present in the target table, execution happens ignoring the date parameter.

> **NOTE** The DQ Batch ID is auto populated and is not editable.

4. Specify the percentage of Threshold (%) limit in numeric value. This refers to the maximum percentage of records that can be rejected in a job. If the percentage of failed records exceeds the Rejection Threshold, the job will fail. If the field is left blank, the default the value is set to 100%.
5. Click Execute. A confirmation message is displayed and the DQ Group is scheduled for execution. Once the DQ Group is executed, you can view the details of the execution along with the log information in the View Logs screen. For more information, see View Data Quality Group Summary Log section.

35.2.3 View Data Quality Group

You can view individual Data Quality Group definition details at any given point.

To view the existing DQ Group definition in the Data Quality Group Summary screen:

1. Select the check box adjacent to the required Group Name. The mapped DQ Rules are displayed in the Data Quality Rules section.
2. Click View button from the Data Quality Groups tool bar. The Data Quality Group Definition screen displays the DQ definition details.

35.2.4 Modify Data Quality Group

You can update the existing DQ Group definition details except for the Group Name.

To updated the required DQ Group definition details in the Data Quality Groups Summary screen:

1. Select the check box adjacent to the required Group Name.
2. Click Edit button from the Data Quality Groups tool bar. The Data Quality Group Definition screen is displayed.
3. Update the details and click Save to update the changes.

35.2.5 Copy Data Quality Group

You can copy the existing DQ Group details to quickly create a new DQ definition based on the existing details or by updating the required parameters.

To copy an existing DQ Group definition in the Data Quality Groups Summary screen:

1. Select the check box adjacent to the required Group Name in the list whose details are to be duplicated.
2. Click Copy button from the Data Quality Groups tool bar. Copy button is disabled if you have selected multiple check boxes. The Data Quality Group Definition screen is displayed.
3. Edit the DQ Group Name and other details as required.
4. Click Save. The new DQ Group definition is displayed in the Data Quality Groups Summary screen.

35.2.6 View Data Quality Group Summary Log

You can view the execution log details of Data Quality Rules in the View Logs screen. The View Logs screen displays the details such as Check Name, Log Message, Message Date, Message Time, Total Rows, Rows Impacted, Assignment Type, Assignment Severity, and Severity Message of the executed Data Quality Rules.

To view the Data Quality Rule execution log details in the Data Quality Groups Summary screen:

1. Select the check box adjacent to the Group Name in the Data Quality Groups grid. The Data Quality Rules associated with the selected Group are displayed in the Data Quality Rules grid.
2. Select the check box adjacent to the DQ Name in the Data Quality Rules grid.
3. Click View Logs button. The View Logs screen is displayed.
4. In the View Logs screen, select the Information Date from the drop down list. Based on the selection, you can select the Group Run ID and Iteration ID from the corresponding drop-down list.
5. Click the below button from the Group Execution details tool bar.

The Data Quality Rule Logs grid displays the execution log details of the selected Data Quality Rule. You can also click Reset button in the Group Execution details tool bar to reset the selection.

35.2.7 Delete Data Quality Group

You can remove the DQ Group definition(s) which are created by you and which are no longer required in the system by deleting from Data Quality Groups Summary screen.

To delete:

1. Select the check box adjacent to the required Group Name whose details are to be removed.
2. Click Delete button from the Data Quality Groups tool bar.
3. Click OK in the information dialog to confirm deletion.

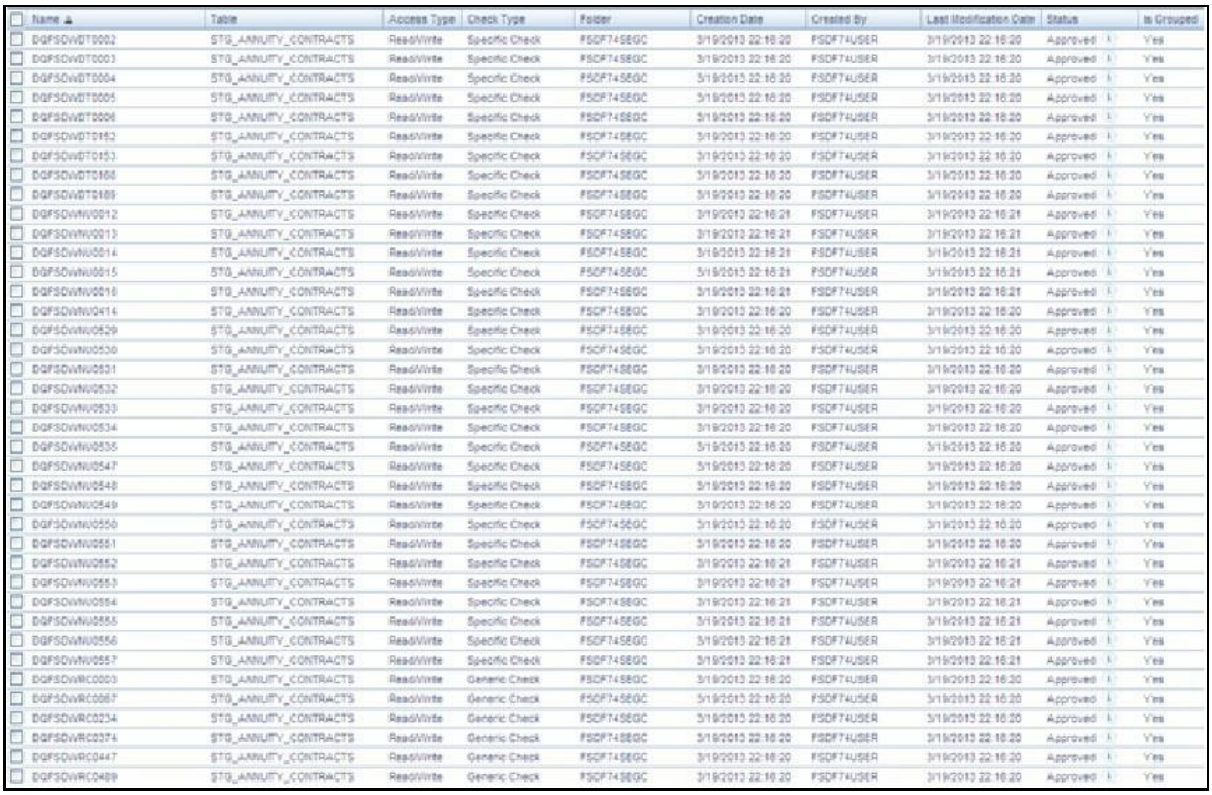
35.2.8 Data Quality Rules For Staging Tables

Data Quality (DQ) Rules are framed and created based on Staging Tables. Each rule is based on specified staging table column Specific Check or table Generic Check. The rules created for each of the tables are detailed the DQ Check Rules spreadsheet.

In Specific Check, a particular column is checked based on rule's predefined checks, where as in Generic Check any columns are not specified. Generic Check is useful if you have a check which is not Specific or you use IF-ELSE conditions or CASE statements.

The following screen displays the Specified DQ Rules:

Figure 18: Specified DQ Rules



Name	Table	Access Type	Check Type	Folder	Creation Date	Created By	Last Modification Date	Status	Is Grouped
DQFSDWDT0002	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0003	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0004	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0005	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0006	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0152	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0153	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0488	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWDT0489	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0012	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0013	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0014	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0015	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0016	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0414	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0529	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0530	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0531	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0532	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0533	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0534	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0535	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0547	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0548	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0549	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0550	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0551	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWNU0552	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0553	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0554	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0555	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0556	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWNU0557	STG_ANNUITY_CONTRACTS	Read/Write	Specific Check	FSDF74SEGC	3/19/2013 22:16:21	FSDF74USER	3/19/2013 22:16:21	Approved	Yes
DQFSDWRC0003	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWRC0087	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWRC0234	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWRC0374	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWRC0447	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes
DQFSDWRC0489	STG_ANNUITY_CONTRACTS	Read/Write	Generic Check	FSDF74SEGC	3/19/2013 22:16:20	FSDF74USER	3/19/2013 22:16:20	Approved	Yes

35.2.9 Data Quality Groups for Staging Tables

To execute any DQ rule, a Group must be created and the rules for execution has to be mapped with this group. For each staging table, a group has to be created and rules for these particular table have to be mapped under this Group.

For more information regarding Group Execution, refer to the section Execute Data Quality Group.

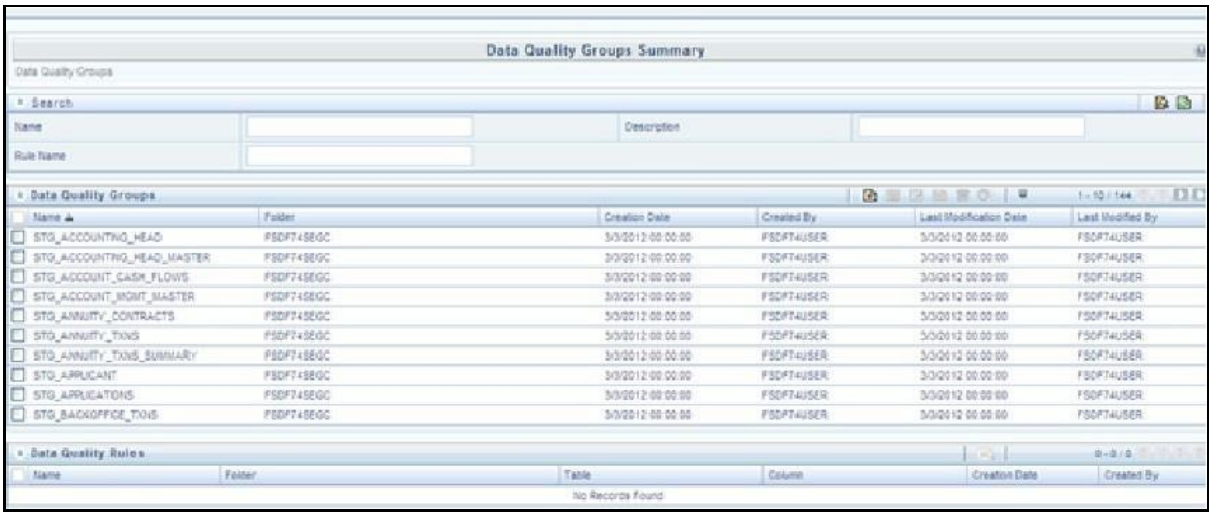
The DQ Group Mapping spreadsheet displays the total groups and corresponding Rules mapped to that Group.

35.2.9.1 DQ Group Execution

You can execute the DQ Rules either from Data Quality Group Summary window or via a Batch execution.

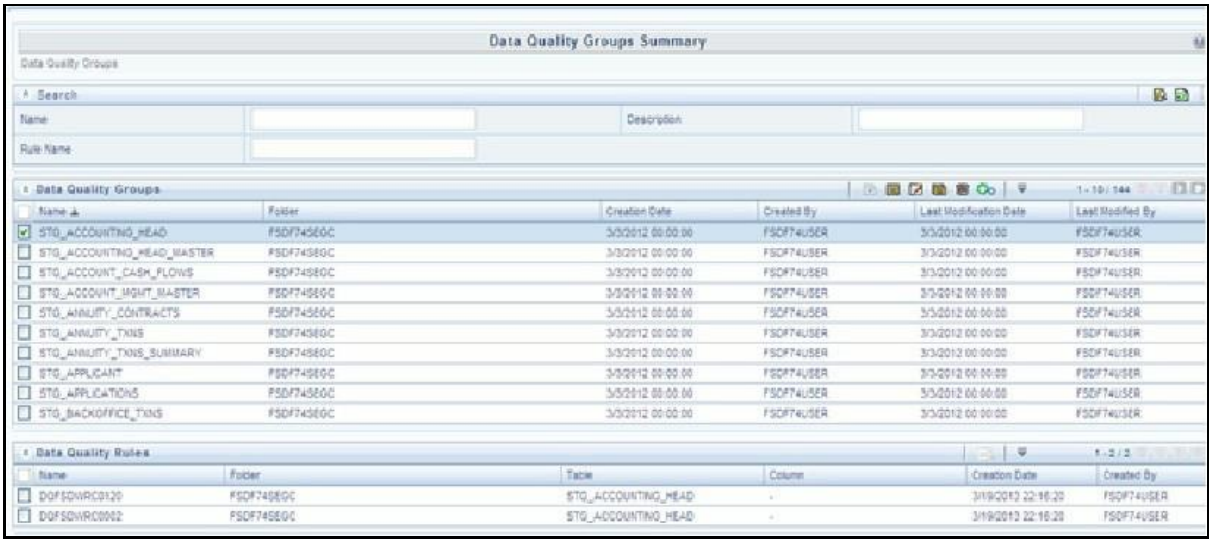
To execute the Data Quality Groups from the Data Quality Groups Summary window:

Figure 19: DQ Group Execution



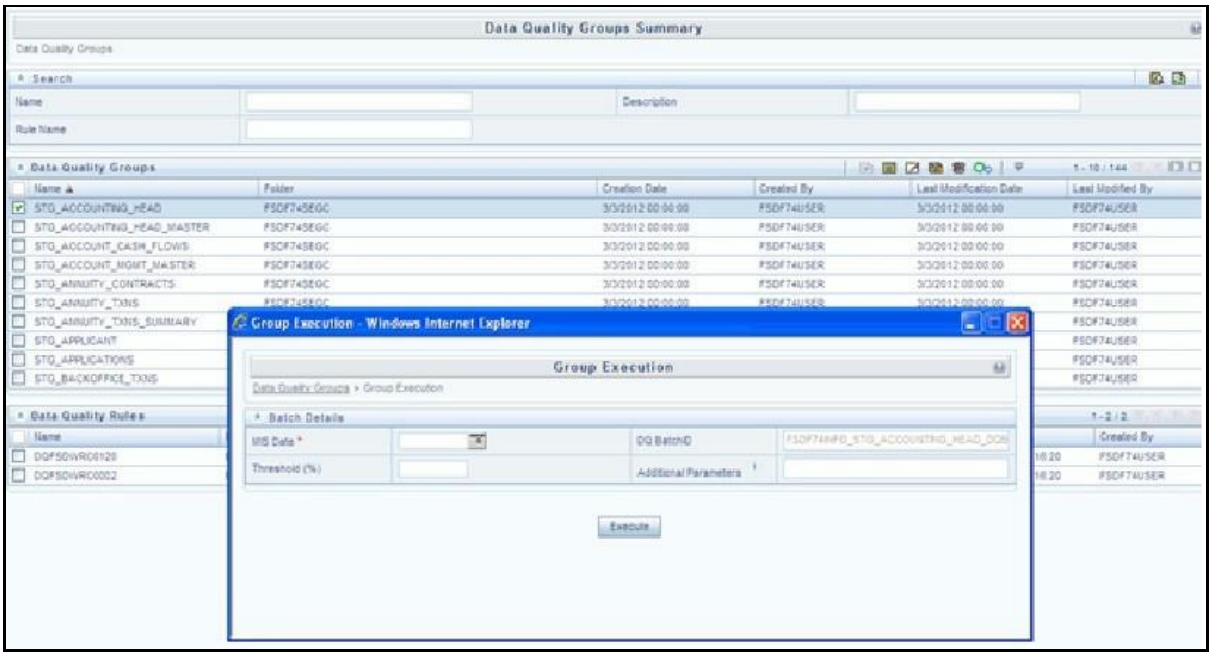
1. Select the check box adjacent to the Group, you want to execute. The corresponding DQ Rules are displayed in Data Quality Rules grid.

Figure 20: DQ Rules



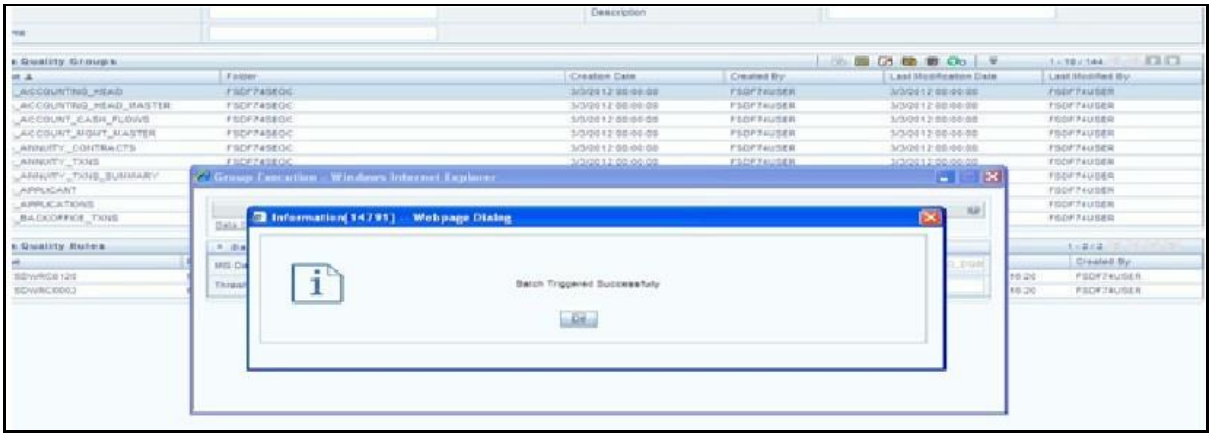
2. Click Execute button. The Group Execution window is displayed.

Figure 21: Group Execution



3. Enter the MIS Date.
4. Click Execute button from the Group Execution window. The execution is triggered and the following message is displayed.

Figure 22: Execution Message

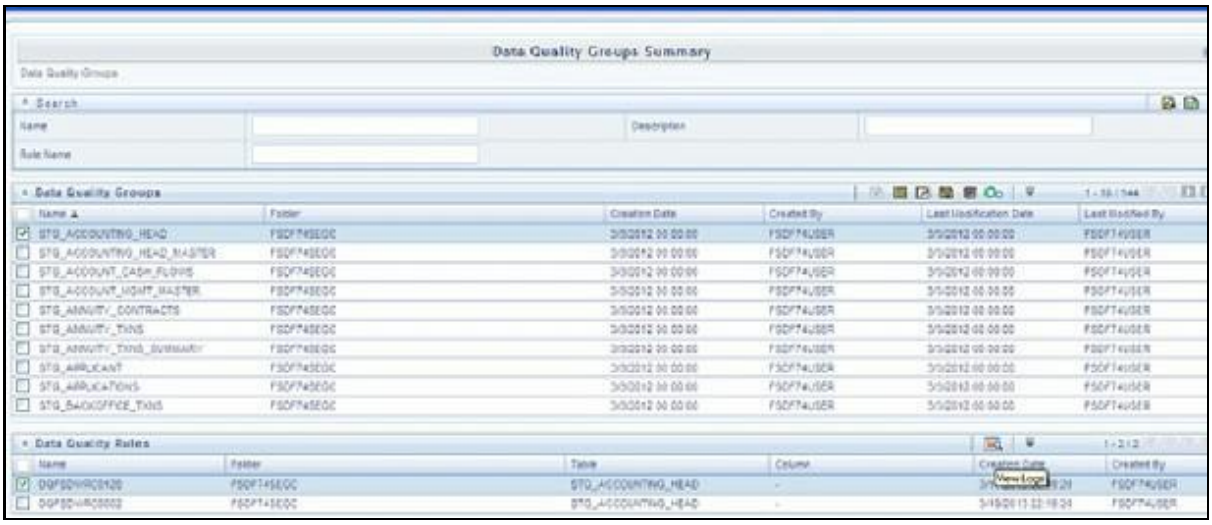


Once the execution is complete, you can view the details from the Data Quality Rules Summary window.

To view the execution logs:

1. Select the check box adjacent to the rule, of which you want to see the execution log.

Figure 23: Data Quality Summary Window

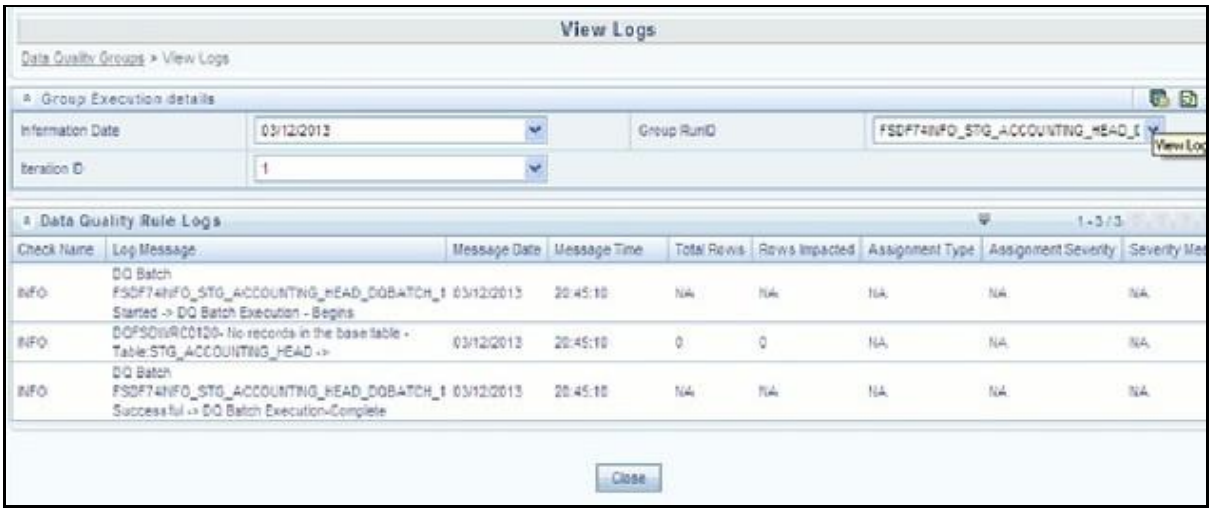


2. Click View Logs button. The View Logs window is displayed.

Figure 24: View Logs

3. Select the Information Date from the drop down list.
4. Select the Group Run ID from the drop down list.
5. Select the Iteration ID from the drop down list.
6. Click View Logs button. The details of the selected Group Execution are displayed.

Figure 25: Group Execution Details



35.2.9.2 Batch Execution of DQ Rules

Create a Batch for executing DQ Rules and add a Task to the selected Batch. Add component as RUN DQ RULE and in Dynamic Parameter List, add a DQ Group.

A single Batch can have multiple number of Tasks and each Task is executing the DQ Group. Batch execution facilitates the execution of multiple Groups simultaneously.

You can also use the Include or Exclude functionality to determine which all groups have to be executed. The following batches need to be executed in OFSDF.

Table 41: Batch IDs and their Descriptions

V_BATCH_ID	V_BATCH_DESCRIPTION
<Infodom>_ALM	Data Quality batch for ALM tables
<Infodom>_CAMPAIGN	Data Quality batch for CAMPAIGN tables
<Infodom>_COLLATERAL	Data Quality batch for Collateral tables
<Infodom>_COLLEC- TION_AND_RECOVERY	Data Quality batch for Collection and Recovery tables
<Infodom>_CRM	Data Quality batch for CRM tables
<Infodom>_CUSTOMER	Data Quality batch for Customer tables
<Infodom>_EXPOSURE	Data Quality batch for EXPOSURE tables
<Infodom>_GL_AND_AC- COUNTING	Data Quality batch for GL and Accounting group
<Infodom>_LRM	Data Quality batch for LRM tables
<Infodom>_MAR- KET_RISK	Data Quality batch for MARKET RISK tables
<Infodom>_MASTER	Data Quality batch for master tables

V_BATCH_ID	V_BATCH_DESCRIPTION
<Infodom>_MISCELLA- NEOUS	Data Quality batch for Miscellaneous tables
<Infodom>_OP_RISK	Data Quality batch for OP RISK tables
<Infodom>_ORIGINATION	Data Quality batch for Origination tables
<Infodom>_PRO- DUCT_PROCESSORS	Data Quality batch for Product Processors group
<Infodom>_RATES	Data Quality batch for Rates tables
<Infodom>_RATING	Data Quality batch for RATING tables
<Infodom>_SECURITIZA- TION	Data Quality batch for Securitization tables
<Infodom>_TRANSAC- TIONS	Data Quality batch for Transactions tables
<Infodom>_TRANSAC- TION_SUMMARY	Data Quality batch for Transaction Summary tables

The DQ Batches and corresponding groups are detailed in the DQ Batch Group Mapping spreadsheet.

For more information regarding Batch Execution, refer to Operations module of Oracle Financial Services Analytical Applications Infrastructure User Manual.

36 Compare Data Model Reports

This chapter provides information about comparing Data Model Reports of two release versions in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this feature.

The first section gives you an understanding of the Data Model Report extracted from the erwin Data Modeling tool. The Comparing Data Model Reports section details the steps to use the OFSAA application and download the Difference Report between two Data Model release versions.

This chapter includes the following topics:

- Creating Data Model Report from erwin
- Extracting Data Model Report from erwin
- Comparing Data Model Reports

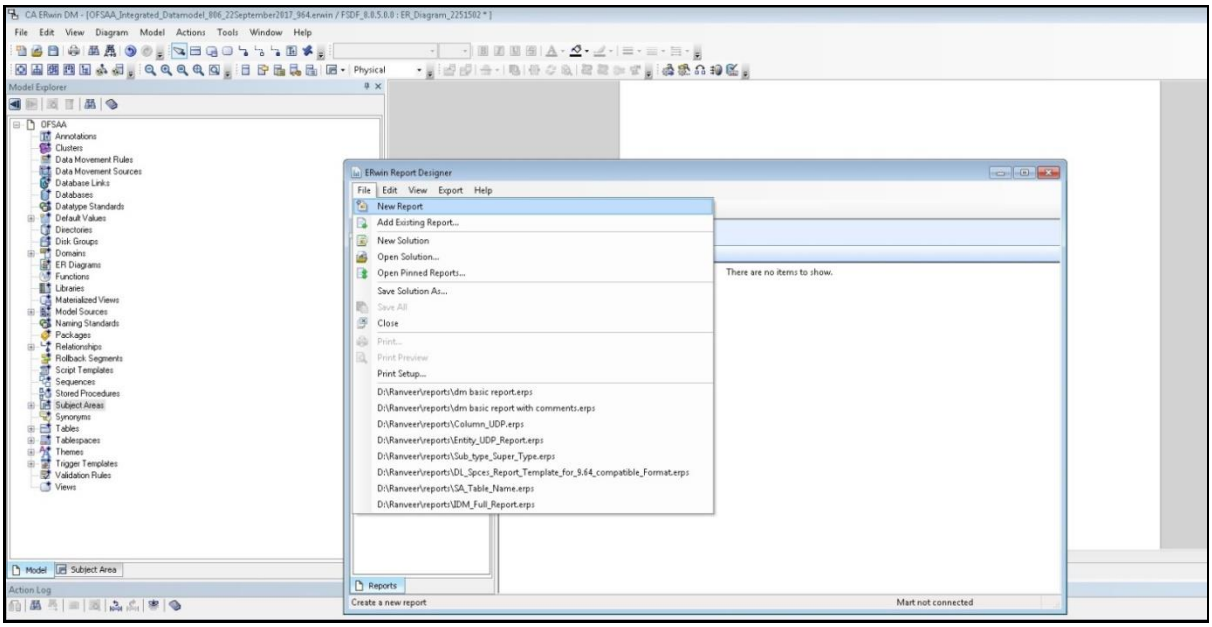
36.1 Creating Data Model Report from erwin

You can create new Data Model Reports from the erwin Data Modeling tool if there are no .eprs files to extract the information.

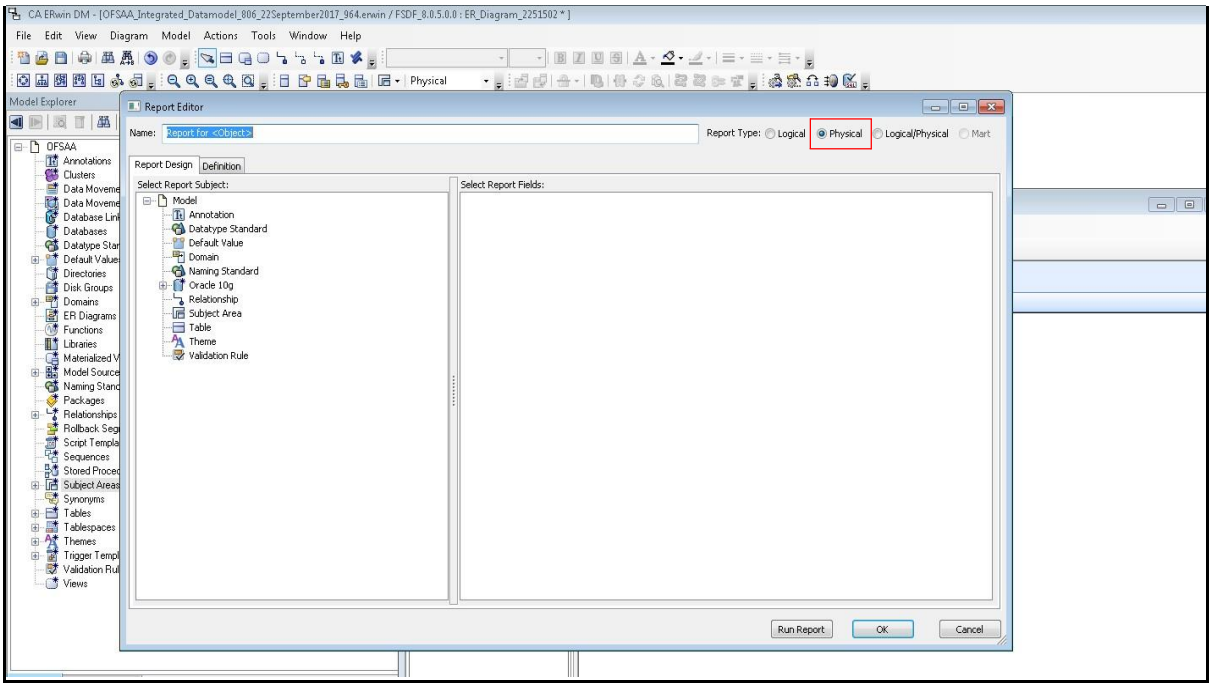
> **NOTE** If the Data Model Reports are existing, see Extracting Data Model Report from ERwin for more information.

Perform the following steps to extract the Data Model Report form ERwin Data Modeling tool:

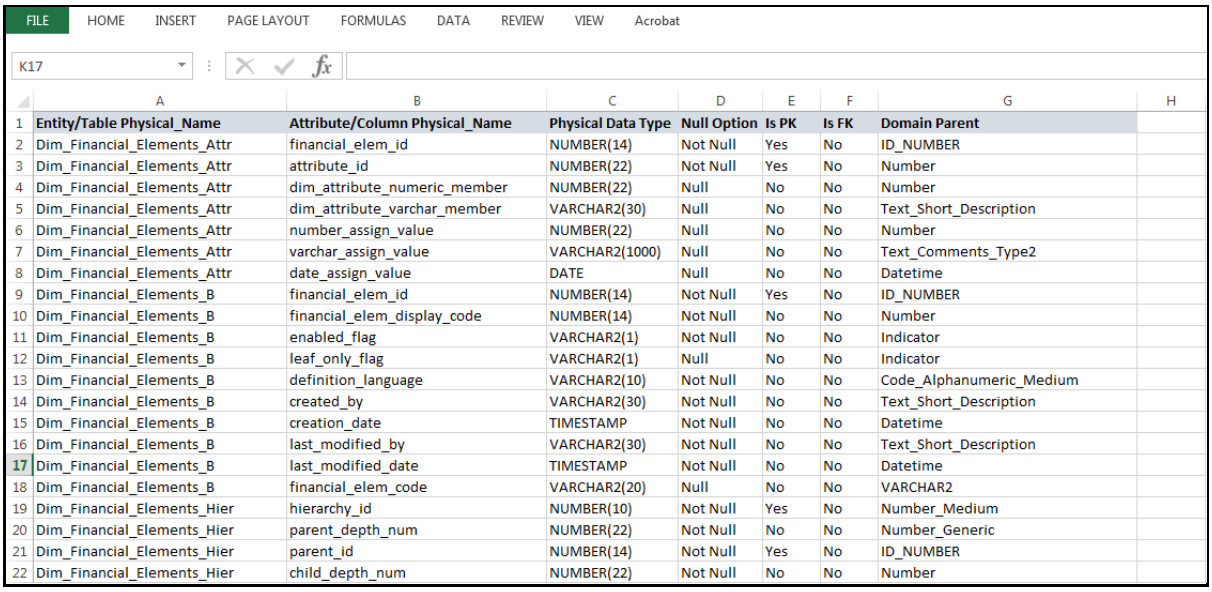
1. In the ERwin Report Designer window, select File --> New Report (to create the .erps report file).



2. In the Report Editor window Select Report Type as Physical --> Select Report Subject as Table.

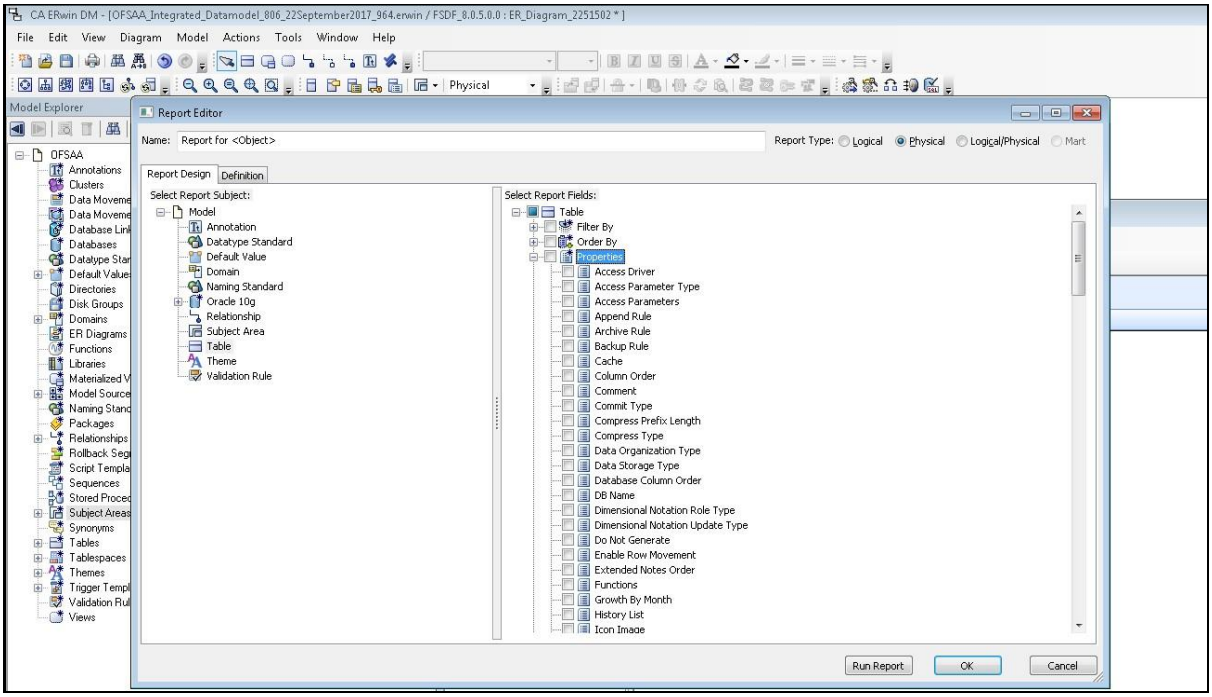


3. Select the Report Fields to match the sample Data Model Report shown as follows:

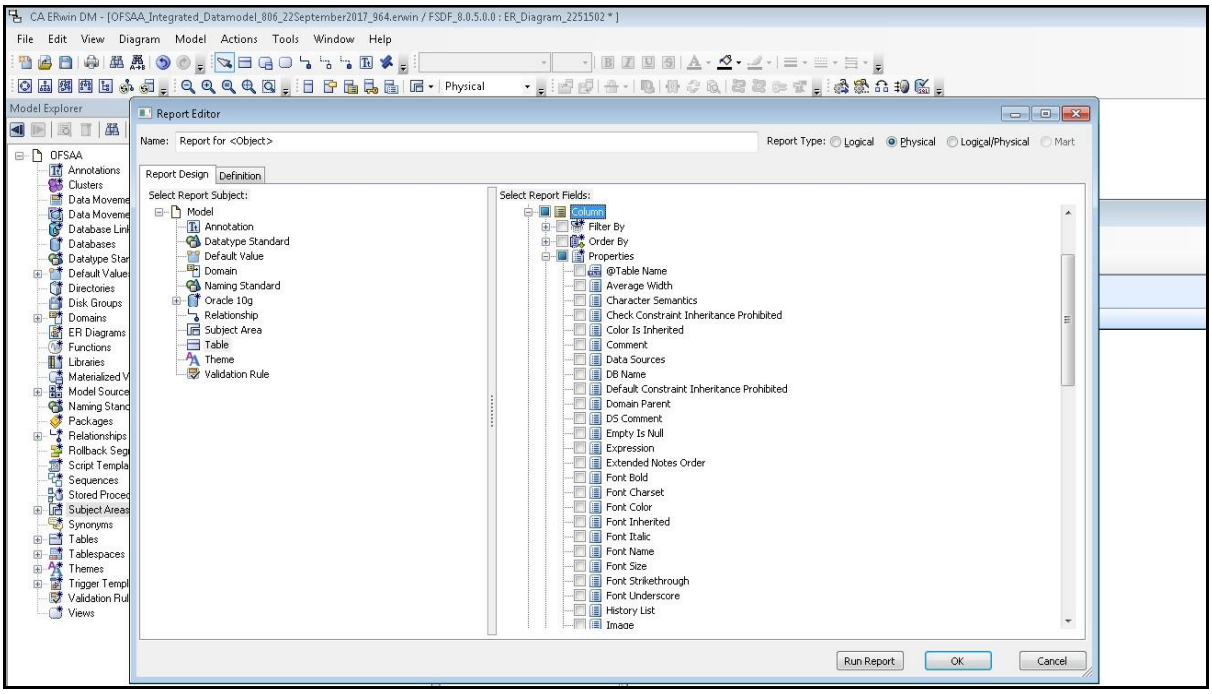


	A	B	C	D	E	F	G	H
1	**Entity/Table Physical_Name**	**Attribute/Column Physical_Name**	**Physical Data Type**	**Null Option**	**Is PK**	**Is FK**	**Domain Parent**	
2	Dim_Financial_Elements_Attr	financial_elem_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
3	Dim_Financial_Elements_Attr	attribute_id	NUMBER(22)	Not Null	Yes	No	Number	
4	Dim_Financial_Elements_Attr	dim_attribute_numeric_member	NUMBER(22)	Null	No	No	Number	
5	Dim_Financial_Elements_Attr	dim_attribute_varchar_member	VARCHAR2(30)	Null	No	No	Text_Short_Description	
6	Dim_Financial_Elements_Attr	number_assign_value	NUMBER(22)	Null	No	No	Number	
7	Dim_Financial_Elements_Attr	varchar_assign_value	VARCHAR2(1000)	Null	No	No	Text_Comments_Type2	
8	Dim_Financial_Elements_Attr	date_assign_value	DATE	Null	No	No	Datetime	
9	Dim_Financial_Elements_B	financial_elem_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
10	Dim_Financial_Elements_B	financial_elem_display_code	NUMBER(14)	Not Null	No	No	Number	
11	Dim_Financial_Elements_B	enabled_flag	VARCHAR2(1)	Not Null	No	No	Indicator	
12	Dim_Financial_Elements_B	leaf_only_flag	VARCHAR2(1)	Null	No	No	Indicator	
13	Dim_Financial_Elements_B	definition_language	VARCHAR2(10)	Not Null	No	No	Code_Alphanumeric_Medium	
14	Dim_Financial_Elements_B	created_by	VARCHAR2(30)	Not Null	No	No	Text_Short_Description	
15	Dim_Financial_Elements_B	creation_date	TIMESTAMP	Not Null	No	No	Datetime	
16	Dim_Financial_Elements_B	last_modified_by	VARCHAR2(30)	Not Null	No	No	Text_Short_Description	
17	Dim_Financial_Elements_B	last_modified_date	TIMESTAMP	Not Null	No	No	Datetime	
18	Dim_Financial_Elements_B	financial_elem_code	VARCHAR2(20)	Null	No	No	VARCHAR2	
19	Dim_Financial_Elements_Hier	hierarchy_id	NUMBER(10)	Not Null	Yes	No	Number_Medium	
20	Dim_Financial_Elements_Hier	parent_depth_num	NUMBER(22)	Not Null	No	No	Number_Generic	
21	Dim_Financial_Elements_Hier	parent_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
22	Dim_Financial_Elements_Hier	child_depth_num	NUMBER(22)	Not Null	No	No	Number	

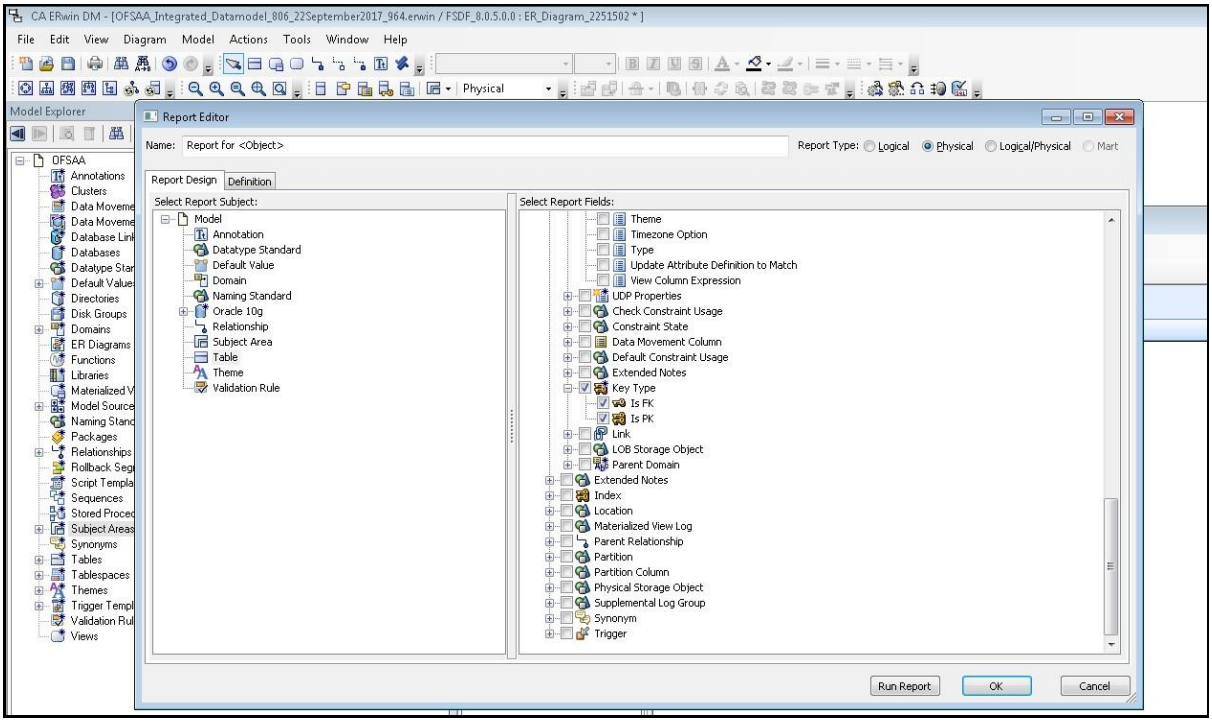
4. Under Table --> Properties, select Physical Name (Entity/Table Physical_Name).



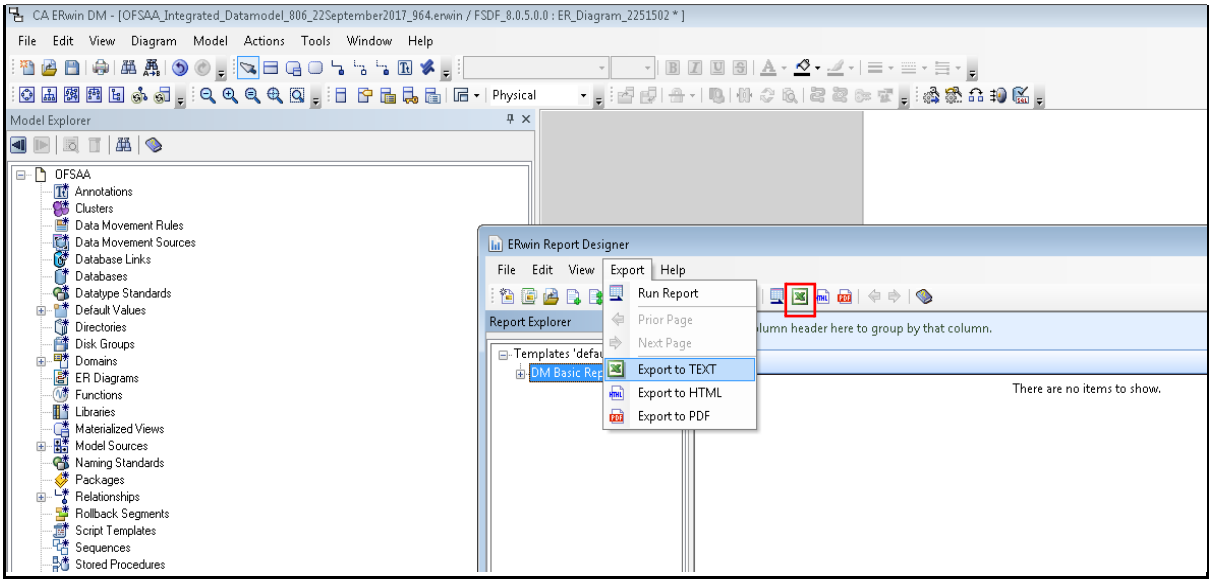
5. Under Table --> Column, select Physical Name (Attribute/Column Physical_Name), Physical Data Type, Null Option, and Domain Parent.



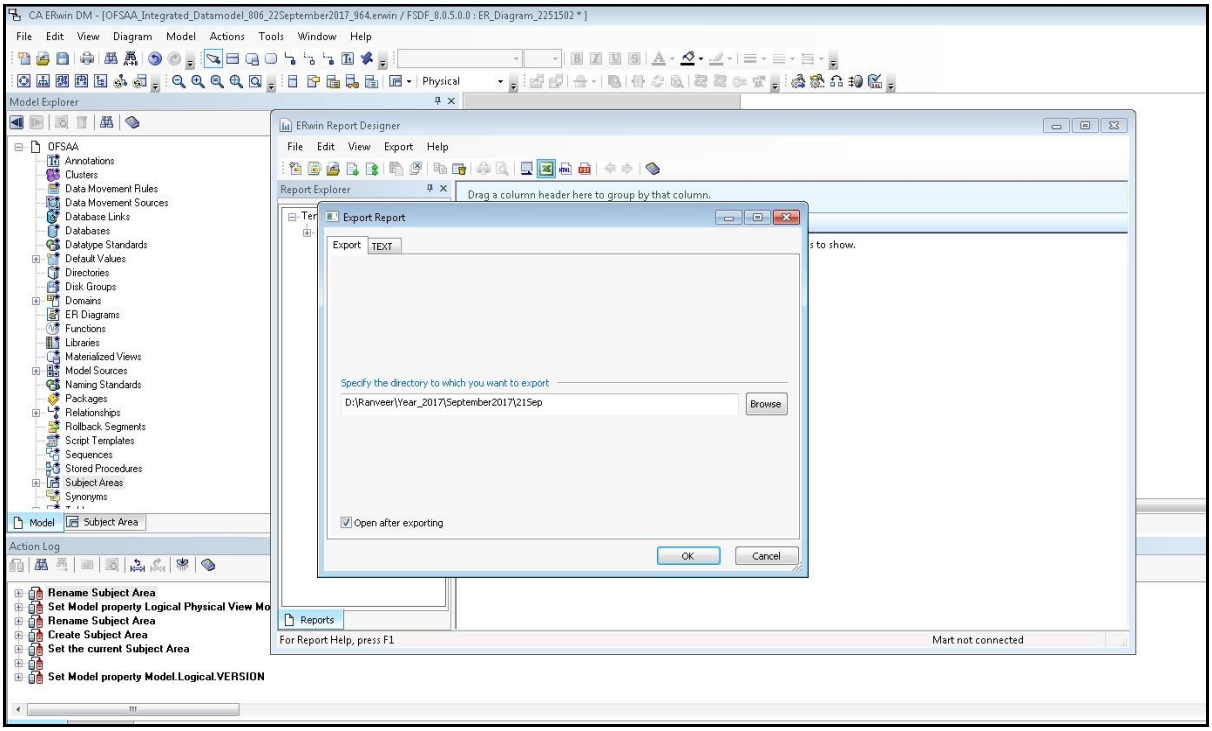
6. Under Table --> Key Type, select Is PK and Is FK. Click OK.



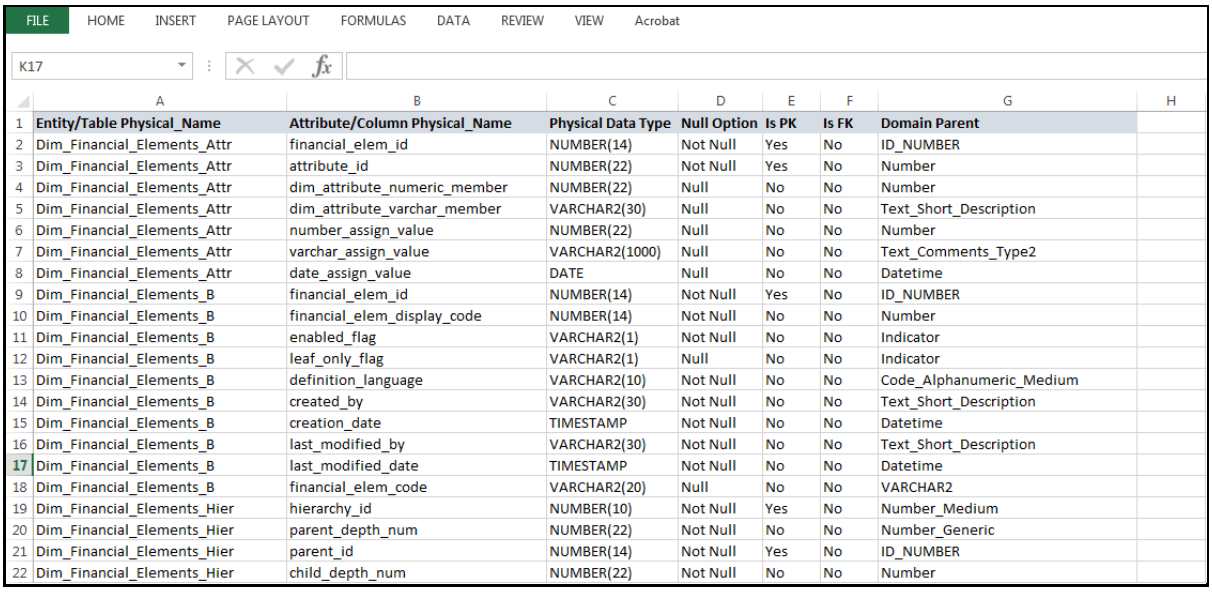
7. In the ERwin Report Designer window, select Export --> Export to Text (Excel Format) or the XL icon.



8. Enter or Browse the Export file path where you want to save the Data Model Report file.



9. The generated Data Model Report file will open and must be in the following format.



	A	B	C	D	E	F	G	H
1	**Entity/Table Physical_Name**	**Attribute/Column Physical_Name**	**Physical Data Type**	**Null Option**	**Is PK**	**Is FK**	**Domain Parent**	
2	Dim_Financial_Elements_Attr	financial_elem_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
3	Dim_Financial_Elements_Attr	attribute_id	NUMBER(22)	Not Null	Yes	No	Number	
4	Dim_Financial_Elements_Attr	dim_attribute_numeric_member	NUMBER(22)	Null	No	No	Number	
5	Dim_Financial_Elements_Attr	dim_attribute_varchar_member	VARCHAR2(30)	Null	No	No	Text_Short_Description	
6	Dim_Financial_Elements_Attr	number_assign_value	NUMBER(22)	Null	No	No	Number	
7	Dim_Financial_Elements_Attr	varchar_assign_value	VARCHAR2(1000)	Null	No	No	Text_Comments_Type2	
8	Dim_Financial_Elements_Attr	date_assign_value	DATE	Null	No	No	Datetime	
9	Dim_Financial_Elements_B	financial_elem_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
10	Dim_Financial_Elements_B	financial_elem_display_code	NUMBER(14)	Not Null	No	No	Number	
11	Dim_Financial_Elements_B	enabled_flag	VARCHAR2(1)	Not Null	No	No	Indicator	
12	Dim_Financial_Elements_B	leaf_only_flag	VARCHAR2(1)	Null	No	No	Indicator	
13	Dim_Financial_Elements_B	definition_language	VARCHAR2(10)	Not Null	No	No	Code_Alphanumeric_Medium	
14	Dim_Financial_Elements_B	created_by	VARCHAR2(30)	Not Null	No	No	Text_Short_Description	
15	Dim_Financial_Elements_B	creation_date	TIMESTAMP	Not Null	No	No	Datetime	
16	Dim_Financial_Elements_B	last_modified_by	VARCHAR2(30)	Not Null	No	No	Text_Short_Description	
17	Dim_Financial_Elements_B	last_modified_date	TIMESTAMP	Not Null	No	No	Datetime	
18	Dim_Financial_Elements_B	financial_elem_code	VARCHAR2(20)	Null	No	No	VARCHAR2	
19	Dim_Financial_Elements_Hier	hierarchy_id	NUMBER(10)	Not Null	Yes	No	Number_Medium	
20	Dim_Financial_Elements_Hier	parent_depth_num	NUMBER(22)	Not Null	No	No	Number_Generic	
21	Dim_Financial_Elements_Hier	parent_id	NUMBER(14)	Not Null	Yes	No	ID_NUMBER	
22	Dim_Financial_Elements_Hier	child_depth_num	NUMBER(22)	Not Null	No	No	Number	

NOTE Ensure that the file is saved in .xlsx format.

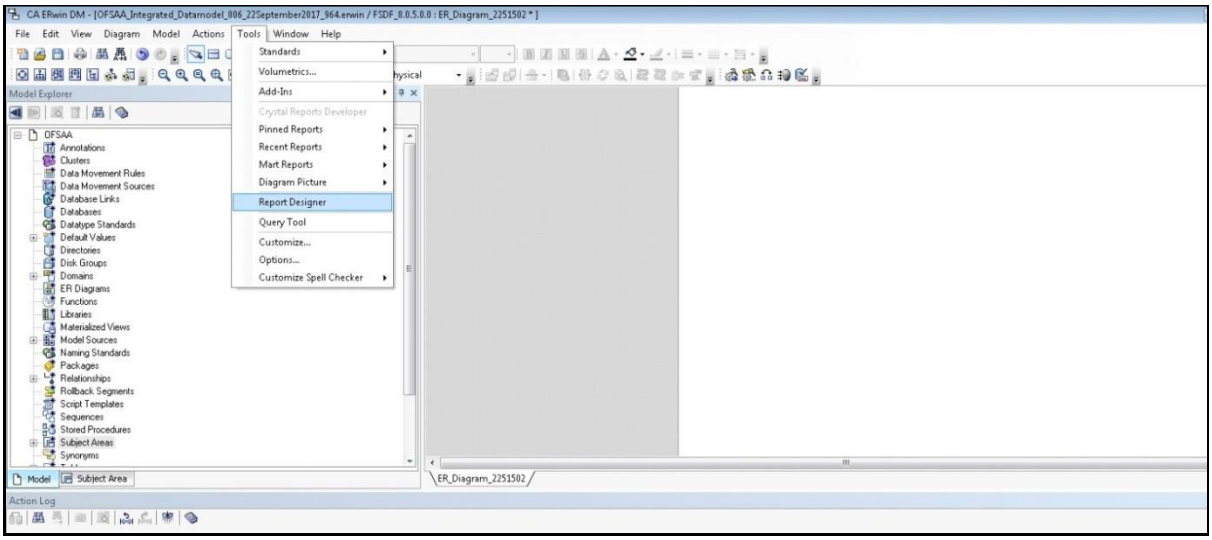
36.2 Extracting Data Model Report from ERwin

OFSDF is a collection of data model artifacts delivered as ERwin files or can be extracted as .XLS file from ERwin Data Modeling tool. OFSDF hence requires a license of the ERwin Data Modeling tool.

ERwin is the current and only supported modeling tool to view and edit the model. Currently, the minimum versions of ERwin supported are 9.5 and 9.64.

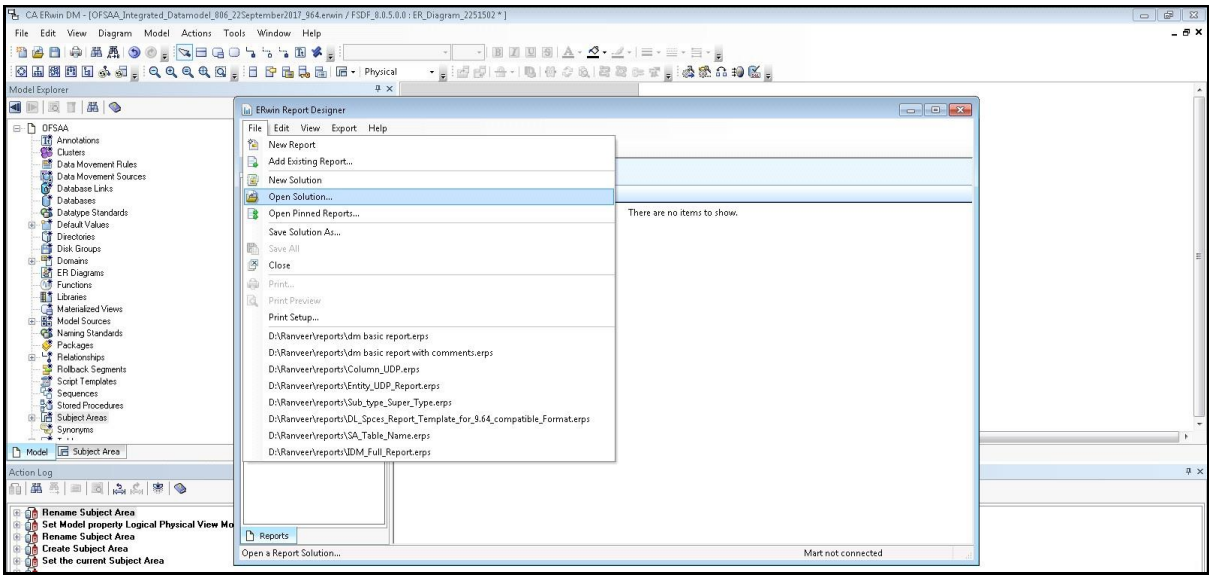
Perform the following steps to extract the Data Model Report form ERwin Data Modeling tool:

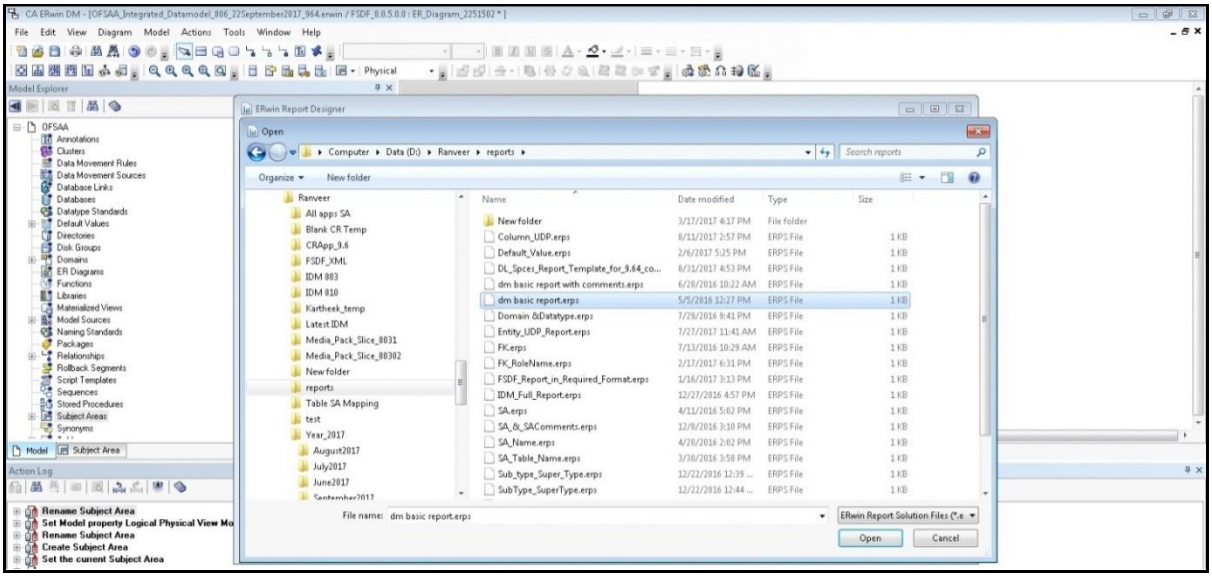
1. Open the Erwin Data Modeling tool.



2. Select Tools --> Report Designer from the Menu bar.

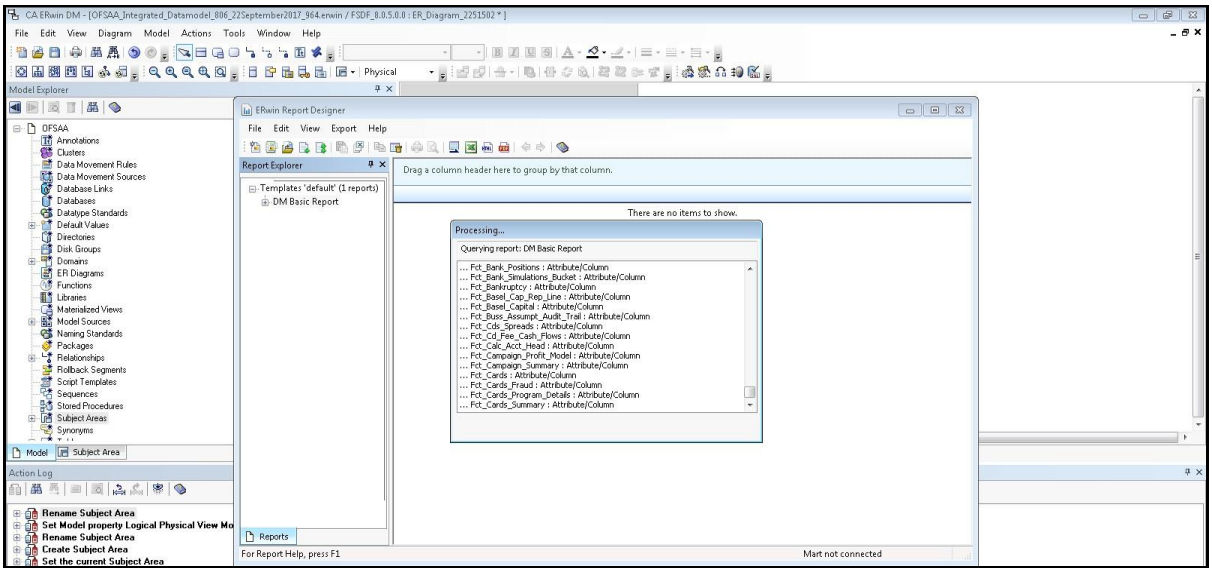
3. In the ERwin Report Designer window, select File --> Open Solution (to extract the .erps report file).





4. Browse the path of the .erps file, select the file and click Open.

5. The existing Data Model Report file is extracted and processed to export the file in XL format.



6. The generated Data Model Report file in XL format is opened. Save the file in .xlsx format.

36.3 Comparing Data Model Reports

Perform the following steps to extract the Data Model Report form ERwin Data Modeling tool:

1. Open the OFSA Application with your login credentials.
2. In the Object Administration tab, Select Object Administration --> Utilities --> Compare Models.

3. Browse the Old Data Model Report Excel File and New Data Model Report Excel File respectively. The Compare button is displayed.

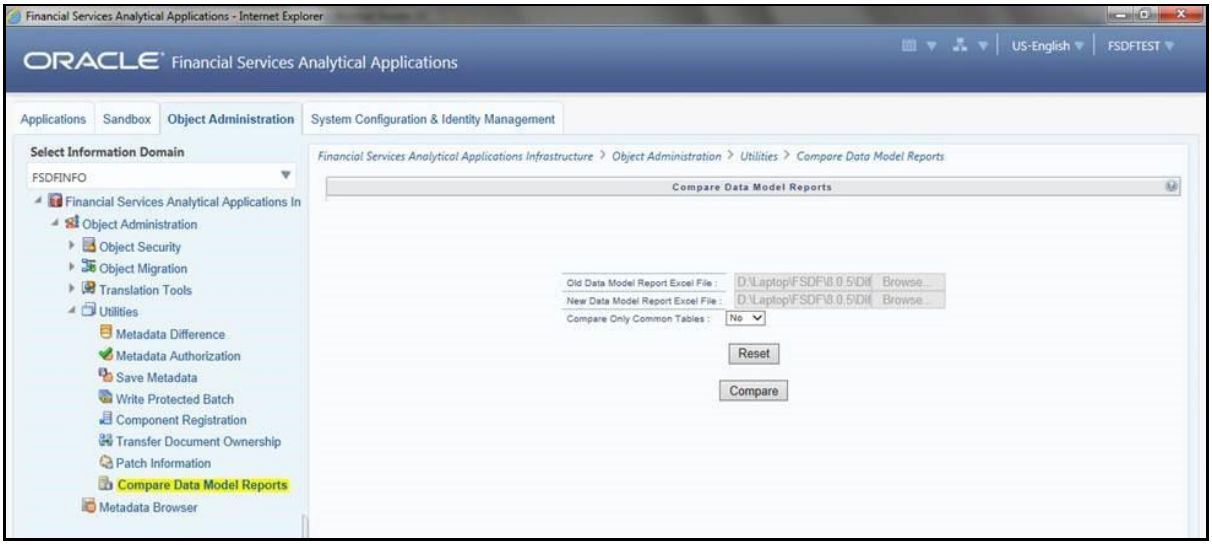
NOTE The Old Data Model Report and New Data Model Report should be in same format and file extension should be .xlsx

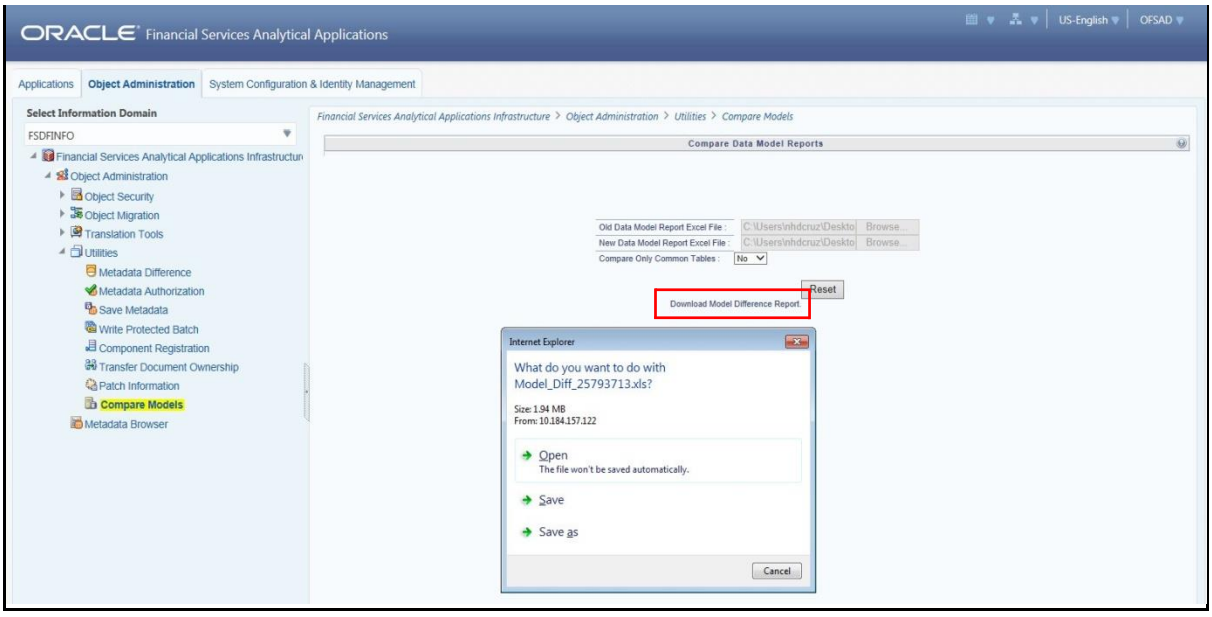
Click Reset if you want to select a different Data Model Report.

4. The Compare Only Common Tables option is “No” by default, select “Yes” only if required.

> **NOTE** The Compare Only Common Tables option “Yes” is used when comparing Data Model Report of different products. The Report fields will be different for each product and only common fields are required to compare for investigation.

5. Click Compare. The Data Model Difference Report will get generated.





6. Click Download Model Differnce Report link and Save the report.

37 APPENDIX A: Naming Conventions Used in OFSDF Data Model

This Appendix chapter explains the various naming conventions used in OFSDF Logical Data Model and Physical Data Model. In addition, the domains in PDM and LDM are also listed with their descriptions.

This appendix covers the following topic:

- Naming Conventions Used in OFSDF LDM and PDM

37.1 Naming Conventions Used in OFSDF LDM and PDM

ERwin Data Model consists of Logical and Physical data structures for each model file.

The following section explains the various naming conventions used in Oracle Financial Services Data Foundation (OFSDF) Logical Data Model (LDM) and Physical Data Model (PDM).

- OFSDF Logical Data Model Naming Conventions
- OFSDF Physical Data Model Naming Conventions
- Domains (PDM and LDM)

37.1.1 OFSDF Logical Data Model Naming Conventions

ERwin modeler tool allows two views namely Logical view and Physical view for each model file. Accordingly, the OFSDF LDM file can be viewed in logical view mode and physical view mode. Different naming conventions and standards are applied to the two views of the OFSDF LDM.

> **NOTE** The physical view of the OFSDF LDM is not the same as the OFSDF PDM. The PDM is a distinct model and is shipped as a separate ERwin File.

- LDM Logical View Mode Entity Naming Conventions
- LDM Physical View Mode Table Naming Conventions

37.1.2 LDM Logical View Mode Entity Naming Conventions

Entities in the logical view are named in such a way that the names themselves convey the functional meaning of the entity. The first letter of each word in an entity name is capitalized (e.g. "Application Stage"). Entity names also contain common suffixes for the classes of entities listed in the table below:

Attribute names also contain common set of suffixes for the classes of attributes as listed in table below:

Table 42: Entity Naming Conventions

CLASS OF ENTITY	SUFFIX	EXAMPLE
Type	Type	Asset-Liability Type
Group	Group	Product Group
Code	Code	Collection Status Code
History	History	Account Balance History
Associative entities	Map	Customer Account Map

Table 43: Attribute Name Suffixes

CLASS OF ATTRIBUTE	SUFFIX	REQUIRED VALUES (IF ANY)
Unique Identifier	ID	
Reference Identifiers	Reference ID	
Code	Code	
Number	Number	
Name	Name	
Description	Description	
Boolean Values	Flag	Y or N
Indicator	Indicator	More than one value ('A', 'B', 'C' etc)
Percentage	Percent	
Rate	Rate	
Amount	Amount	
Balance	Balance	
Term	Term	
Frequency	Frequency	
Unit	Unit	
Record created by		Created By
Record modified by		Modified By

CLASS OF ATTRIBUTE	SUFFIX	REQUIRED VALUES (IF ANY)
Record created on		Created On
Record modified on		Modified On
Record validity start date		From Date
Record validity end date		End Date

37.1.3 LDM Physical View Mode Table Naming Conventions

In the physical view of the OFSDF LDM follows a different naming convention for entities and attributes in the model, and these reflect naming standards that are more readily acceptable to table and column naming constraints of common database systems.

The entity names in the physical view mode of the LDM are capitalized and each entity follows the following naming pattern:

- FSW_<Subject Area>_<Table Name>
- 'FSW' is a constant prefix.
- <Subject Area> is abbreviated form of the entity's primary subject area.
- <Table Name> is a meaningful name for the entity with no embedded spaces between words. Table Name may be abbreviated.

Table 44: Naming Conventions

LOGICAL VIEW NAME	PHYSICAL VIEW NAME	DESCRIPTION
Account Address	FSW_ACCT_ACCOUNT_ADDRESS	Account Address entity belonging primarily to Account (ACCT) subject area.
Letter Of Credit	FSW_CON_LETTER_OF_CREDIT	Letter of Credit entity belongs primarily to the Contracts (CON) subject area.

37.1.4 OFSDF Physical Data Model Naming Conventions

The OFSDF PDM consists of tables grouped into two distinct areas namely the Staging Area and Results Area. The Staging Area consists of tables for data sourcing and the Results Area consists of the star schemas / datamarts for reporting and BI.

ERwin modeler tool allows two views namely Logical view and Physical view for each model file. Accordingly, the OFSDF PDM (Physical Data Model) file can be viewed in logical view mode and physical view mode. Different naming conventions and standards are applied to the two views of the OFSDF Physical Data Model.

- PDM Logical View Mode Naming Conventions
- PDM Physical View Mode Naming Conventions

37.1.5 PDM Logical View Mode Naming Conventions

In the logical view model, OFSDF PDM model tables and columns have descriptive names that readily convey the meaning and use of the element. In the logical view, names of tables and columns can have more than one word with the first letter of each word capitalized. Staging Area structures and Results Area structures have different name prefixes and suffixes as outlined in the table below:

Table 45: Prefixes and Suffixes

PDM AREA		PREFIX	SUFFIX	EXAMPLE
Staging (Data Sourcing)	All Tables	Stage		Stage Internet Transactions
	Transaction Tables		Transactions	Stage Card Settlement Transactions
	Master Tables		Master	Stage Product Master
Results (Datamart)	All Fact Tables	Fact		Fact Process Cashflow
	All Dimension Tables		Dimension	Account Dimension

37.1.5.1 PDM Physical View Mode Naming Conventions

In the physical view model, OFSDF PDM tables and columns may have abbreviated words joined by underscore character to form more meaningful and descriptive names.

Table names in the physical view are capitalized

Table 46: Physical view

PDM AREA		PREFIX	SUFFIX	EXAMPLE

PDM AREA		PREFIX	SUFFIX	EXAMPLE
Staging (Data Sourcing)	All Tables	STG_		STG_LOAN_CONTRACTS
	Interface tables for data from MDM and core banking systems		_INTF	STG_ORG_UNIT_ATTR_INTF
	Transaction Tables		_TXNS	STG_CARDS_SETTLEMENT_TXNS
	Master Tables		_MASTER	STG_CUSTOMER_MASTER
Results (Datamart)	All Fact Tables	FCT_		FCT_ACCOUNT_SUMMARY
	All Dimension Tables	DIM_		DIM_ DIM_PRODUCT

The table below lists the prefix and/or suffix used for columns names in the physical view of the OFSDF PDM. The prefix or suffix depends on the class and data type of the column.

Column name prefix to indicate column datatype:

Table 47: Column Name Prefix

COLUMN DATA TYPE	PREFIX
Varchar	v_
Number	n_
Date	d_
Flag	f_

Column name suffix for common classes of columns:

Table 48: Column Name Suffix

COLUMN CLASS	SUFFIX
Method	_method

COLUMN CLASS	SUFFIX
Percentage	_pct
Rate	_rate
Balance	_bal/_balance
Amount	_amt/_amount
Term	_term
Type	_type
Frequency	_freq

In addition, frequently occurring keywords in column names may be abbreviated as shown in table below:

Table 49: Abbreviations

NAME	ABBREVIATED FORM	NAME	ABBREVIATED FORM
Accrual	accr	Local Currency	lcy
Account	acct	Line Of Business	lob
Accounting Currency	acy	Maximum	max
Address	addr	Minimum	min
Adjustment	adj	Mortgage	mort
Advance	adv	Message	msg
Amount	amt	Multiplier	mult
Application	app	Number	num
Average	avg	Over Draft	od
Balance	bal	Option	opt
Business	bus	Origination	org
Currency	ccy	Percent	pct
Consolidation	cons	Payment	pmt
Customer	cust	Prepayment	Ppmt
Description	desc	Product	prod
Dimension	dim	Source	src
Detail	dtl	Status	stat

NAME	ABBREVIATED FORM	NAME	ABBREVIATED FORM
Earnings at Risk	ear	Statistics	stats
End Of Period	eop	Temporary	temp
Error	err	Total	tot
Flag	flg	Transaction	txn
Frequency	freq	Value at Risk	var
Future	fut	Value	val
Forex	fx		
Generation	gen		
General Ledger	gl		
Hierarchy	hier		
History	hist		

37.1.6 Domains (PDM and LDM)

Domains are Logical data types that are attached to each column within the model. The following table lists the domains and their descriptions.

Table 50: Domains and their Descriptions

SERIAL NO	DOMAIN NAME	DOMAIN DESCRIPTION
1	Date	DATE
2	Timestamp	TIMESTAMP
3	Number	NUMBER(10)
4	Amount	NUMBER(22,3)
5	Code	NUMBER(5)
6	Flag	CHAR(1)
7	Frequency	NUMBER(5)
8	ID	VARCHAR2(25)
9	Percent	NUMBER(10,6)
10	Percent_Long	NUMBER(15,11)

SERIAL NO	DOMAIN NAME	DOMAIN DESCRIPTION
11	Phone_Fax_Number	NUMBER(15)
12	Rate	NUMBER(10,6)
13	Term	NUMBER(5)
14	Alphanumeric_Code	VARCHAR2(10)
15	Name	VARCHAR2(60)
16	Currency_Code	VARCHAR2(3)
17	Short_Description	VARCHAR2(60)
18	Description	VARCHAR2(255)
19	Account_Number	VARCHAR2(25)
20	System_Identifier	NUMBER(20)
21	Long_Description	VARCHAR2(4000)

38 APPENDIX B: Standard Data Expectations

38.1 Rate and Percentage

Data in the columns associated with the below mentioned domains must be provided as a counting number (a whole number, which must not begin from 0).

- LONG_RATE
- Rate
- RATE
- Short_Rate
- RATE_LONG
- Number_Percentage
- Percent
- Percent_Long

For example: If the interest rate is 8.9, then FSDF considers 8.9 as the value in the column instead of 0.089, because 0.089 is not valid as interest rate value.

38.2 Custom Reporting Line Codes

Custom values can be added in the DIM_REP_LINE table. DIM_REP_LINE custom range is between 100000000001 and 100002000001 for custom values for the N_REP_LINE_CD sequence.

39 APPENDIX C: How to Define a Batch

This Appendix provides information about How to Define a Batch in the Oracle Financial Services Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topic:

- Batch Definition

39.1 Batch Definition

Create a batch from the OFSAAI Batch Maintenance screen as follows:

1. From the OFSAAI Home menu, navigate to Operations > Batch Maintenance.
2. In the Batch Maintenance window, Select '+' button from the Batch Name tool bar. The New Batch Definition window is displayed.
3. Enter the Batch details as tabulated.

Table 51: Batch Details

FIELD	DESCRIPTION
Batch Name	The Batch Name is auto generated by the system. You can edit to specify a Batch name based on the following conditions: The Batch Name should be unique across the Information Domain. The Batch Name must be alphanumeric and should not start with a number. The Batch Name should not exceed 41 characters in length. The Batch Name should not contain special characters "." and "-".
Batch Description	Enter a description for the Batch based on the Batch Name.
Duplicate Batch	(Optional) Select the check box to create a new Batch by duplicating the existing Batch details. On selection, the Batch ID field is enabled.
Batch ID (If duplicate Batch is selected)	It is mandatory to specify the Batch ID if Duplicate Batch option is selected. Select the required Batch ID from the list.

FIELD	DESCRIPTION
Sequential Batch	Select the check box if the Batch has to be created sequentially based on the task specified. For example, if there are 3 tasks defined in a Batch, task 3 should have precedence as task 2, and task 2 should have precedence as task 1.

4. Click Save to save the Batch definition details.

The new Batch definition details are displayed in the Batch Name section of Batch Maintenance window with the specified Batch ID.

40 APPENDIX D: Template to Generate Data Dictionary and Download Specification for ERwin 9.x

OFSAA data models have been designed and released on 7.x version of ERwin. However, if there is a requirement to upgrade to the latest version of ERwin (9.x series), the existing procedure to generate DL specification using the published report templates fails in the 9.x version. This is because of architectural changes between the two ERwin versions. This chapter provides information about the procedure to generate data dictionary and download specification for ERwin 9.x, for all OFSAA data models qualified on FSDF 8.0.7.

40.1 Prerequisite

Upgrade model to 9.x series before initiating generation of the DL specification.

Download the excel based template "OFSAA Data Model Dictionary Template.xls" and follow the steps mentioned below. This template is compatible with all the OFSAA data models that are qualified with FSDF version 8.0.7.0.0 and ERwin version 9.x.

1. Ensure that the Erwin Data Modeler version is ERwin 9 or later.
2. Ensure that macros are enabled in this excel before execution.
3. Open the OFSAA data model in ERwin 9 or a later version before executing this template.
4. Click the "UDP selection Menu" button to launch UDP selection form.
5. Select the appropriate application UDP's (optional).
6. Click "Generate Report" button.
7. On successful execution, the following message is displayed "Report generation is Complete".
8. The download specification and the data dictionary report is located in "OFSAA_Download_Spec" worksheet.

NOTE To generate report for two application UDP's such as "BASEL_III_USA_ADVNCD" and "OR" , you need to manually remove the extra characters from the UDP name in the data model else the execution will throw an error. The UDP names will be fixed in the upcoming release of FSDF