# **Oracle Insurance Data Foundation**

**User Guide** 

Release 8.0.8.0.0

October 2019



## Oracle Insurance Data Foundation

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# **Document Control**

| Version | Revision Date  | Change Log   |   |
|---------|----------------|--|---|
| Number  |                | Feature Name   | Feature Description   |
| 1.0     | 02-August-2019 | Long Duration<br>Contracts   | ASU 2018-12 document for targeted improvements to the Accounting for Long-Duration Contracts identifies the simplification of and improving the accounting for certain market-based options or Guarantees associated with deposit (or account balance) contracts.  OIDF 808 provides data model enhancements to handle  |
|         |                |  | these aspects of Insurance Contracts as given below:  • Market based implicit options: This primarily covers Guaranteed Benefits and options such as GMDB or Guaranteed Benefits, which is a component of Insurance Policy or Contract that provides for either part of full benefit amount. The Insurer guarantees this amount. Other examples are Guaranteed Minimum Withdrawal Benefit (GMWB), Guaranteed Minimum Income Benefit (GMIB), and Guaranteed Minimum Accumulation Benefit (GMAB).       |
|         |                |  | Embedded Option: This is a special condition attached to an Insurance Contract, which gives the Policyholder or the Issuer the right to perform a specified action at some point in the future. For example, a Death Benefit that is linked to equity prices payable only on death.   |
|         |                |  | Effective from OIDF 808, these option and guaranteed benefits must be loaded as a Policy Coverage. Related model enhancements provide placeholders for guarantee type, option dates and parent-child relationship between Coverages to identify base coverage in case of options. For further details, refer to OIDF 808 Data Model.  |
|         |                |  | With these enhancements, OIDF customers can<br>reuse existing cash flow structures to hold cash<br>flows for each option (as required) across various<br>insurance product types and link claim<br>occurrences to particular guarantee benefit or<br>option to demonstrate end to end data lineage.   |
|         |                | Actuarial Assumptions     Insurance Cost of Living Adjustment     Insurance Mortality Multiplier | As per ASU 2018-12 document for targeted improvements to the Accounting for Long-Duration Contracts amendments in this Update require an insurance entity to (1) review and, if there is a change, update the assumptions used to measure cash flows at least annually and (2) update the discount rate assumption at each reporting date.  To support this, OIDF is providing the facility to store multiple assumption as of given valuation date and added to this few more actuarial assumptions. |

| Version | Revision Date | Change Log                          |   |  |
|---------|---------------|-------------------------------------|---|--|
| Number  |               | Feature Name                        | Feature Description   |  |
|         |               |                                     | Currently OIDF provides for Mortality, Morbidity,<br>Interest Rate Curves, and Foreign Exchange<br>Rates since last few releases.   |  |
|         |               |                                     | <ul> <li>Mortality Multiplier: Multipliers are generally<br/>calculated to reflect more accurate estimation of<br/>mortality depending on growth in population and<br/>given rate of return.</li> </ul>   |  |
|         |               |                                     | COLA: Cost of Living Adjustments are used to<br>determine the retirement, annuity or similar other<br>benefits. Methodology identifies a benchmark and<br>based on benchmark movements adjustment of<br>Living costs are published either by Government<br>Agency or insurer itself.  |  |
|         |               | Premium Rate                        | With 808, OIDF now provides premium tables, which link age, gender and premium rate and those in turn help arriving at the premium for future policies and cash flows.  |  |
|         |               | Producer and<br>Producer Agreements | Insurance Producer refers to a person or a firm that must be licensed under the respective laws of the land to sell, solicit, or negotiate Insurance Contracts.   |  |
|         |               |                                     | Agreement means a formal agreement between an Insurance firm and an Insurance Producer on the lines of authority specified in the agreement to sell, negotiate or solicit the Insurance products with prospective customers. In some companies, an agent must also be appointed for selling particular products.  |  |
|         |               |                                     | Insurance license is an authority to sell, solicit or negotiate particular Insurance products and awarded by jurisdiction specific insurance regulatory authority to Insurance Producers whereas producer agreements are between producers and insurance firms. Availability of valid insurance license is a pre-requisite of the producer agreements. There are two types of agreements:   |  |
|         |               |                                     | OIDF 808 provides following data structures :   |  |
|         |               |                                     | <ul> <li>Producer appointment details which handles the<br/>appointment details like contract dates, carrier,<br/>appointment type, appointment category, producer<br/>details, underwriting privilege type to name few.</li> </ul>   |  |
|         |               |                                     | <ul> <li>Producer Distribution details to cover geography<br/>details where producer can sell or service or<br/>facilitate the particular set of products.</li> </ul>   |  |
|         |               |                                     | <ul> <li>Producer Line of Authority Details to cover the<br/>individual lines of authority, which are required to<br/>offer this product for sale.</li> </ul>   |  |
|         |               | Policy Commission                   | This refers to the compensation for the sale of policies to producers or agents. This compensation can be a percentage of premium paid through agents to insurance companies. Many insurance carriers base this commission on various criteria like coverage, the product and the marketing channels etc. which are attributes available at contract level in OIDF. A standard commission is a specific dollar amount or percentage |  |

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| Number  |                 | Feature Name   | Feature Description  |
|         |                 |  | commission on the premium set at the time of or advance of the purchase, renewal, and placement or servicing of a particular insurance policy as applicable. Commissions are therefore payable to producers or agents for bringing the business to the insurance company.  OIDF provides the policy commission and policy  |
|         |                 |  | commission transaction entities whereby customer can load data from underwriting systems and Accounting systems accordingly.   |
|         |                 | Data Structures to aid Reclassification of Standard Dimensions | OIDF 808 provides the standard dimension on product and party. List of values in this dimensions are from various regulatory references. Owning to difference in source system values and those required for regulatory classifications OIDF provides two entities. They are FSI_PROD_STD_PROD_TYPE_MAP, and FSI_PARTY_STD_PARTY_TYPE_MAP. These work as mappers between customer values of product type and party type with their standard set of values.   |
|         |                 |  | These are customer-managed entities due to flexibility required in ongoing maintenance between various source systems.   |
|         |                 | Enhanced Coverage of ACORD Life and Annuity Objects            | OIDF 808 provides increased coverage for Life, Policy, Coverage, Annuity objects from ACORD Life and Annuity data model 2.40.  |
| 2.0     | 17-October-2019 | Data sourcing and<br>storage in General<br>Ledger              | GL Data T2T: In OIDF, the Stage GL Data table stores summarized data at primary granularity of General Ledger whereas various transaction tables store the individual transaction data. OFSAA suite of applications expect the consolidation of General Ledger data occurring in the financial systems, and OIDF entities are loaded after consolidation.  |
|         |                 | Application of Data<br>Domain Browser in<br>OIDF               | Data Domain Browser: The Data Domain Browser provides Data Foundation customers a User Interface to view and query the erwin data model over physical data model reports that Data Foundation provides currently. In addition, Data Domain browser also provides all the information like physical formats along with granularity and technical details such as data type. One can view Data Domain Browser as a logical representation of Data Foundation. This equips User Interface with the factors that provide pre-built grouping of entities and data elements to enhance search by the end-user. |

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### **Preface** 1

This chapter discusses the following topics:

- Intended Audience
- **Documentation Accessibility**
- Access to Oracle Support
- **Related Information Sources**

#### 1.1 **Intended Audience**

Welcome to Release 8.0.8.0.0 of the Oracle Insurance Data Foundation User Guide.

This document is the user guide and reference guide for the Oracle Insurance Data Foundation (OIDF) Release 8.0.8.0.0, and is intended for System Administrator and all users who are instrumental in configuring and administering OIDF 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 Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc

## 1.3 **Access to Oracle Support**

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

### Related Information Sources 1.4

Refer to the below documents in OHC Documentation Library:

- Technical Whitepaper on Data Model Document Generation (OHC)
- Oracle Insurance Data Foundation Installation Guide Release 8.0.8.0.0 (OHC)
- OFSAAI Installation and Configuration Guide Release 8.0.8.0.0 (OHC)
- Oracle Insurance Data Foundation Runchart Release 8.0.8.0.0 (My Oracle Support)

#### 2 Introduction to OIDF

This chapter explains about Oracle Insurance Data Foundation (OIDF), its components, its relationship with Oracle Financial Services Analytical Applications Infrastructure (OFSAAI), and the key prerequisites to run OIDF.

This chapter includes the following topics:

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

#### 2.1 **Overview**

Oracle Insurance Data Foundation (OIDF) is an analytical data warehouse platform for the Insurance industry. OIDF 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:

- **Enterprise Risk Management**
- **Enterprise Performance Management**
- **Customer Insight**

OIDF supports variety of insurance business segments under Direct insurance contracts namely Life Policies, Health Policies, Annuities, Property and Casualty policies and Retirement Policies and under indirect or reinsurance business segment it supports reinsurance held as well as reinsurance issued

OIDF is a comprehensive data management platform that helps Insurance Companies to manage the analytical data life cycle from sourcing to reporting, as a consistent platform and toolset.

## 2.2 **Components of OIDF**

OIDF consists of the following components, which are described in additional detail in the next chapter:

| Criteria                 | Description  |
|--------------------------|--|
| Logical Data Model (LDM) | LDM is a reference model of the Insurance domain for various types of Insurance. This model captures the business processes of a typical Insurance institution in detail.  |
|                          | Logical Data Model means it cannot be readily used. The structures modeled in the OIDF LDM provide an abstract, graphical model of the Insurance industry domain using Entity-Relationship modeling. This can be considered as a detailed blueprint for organizing data within an Insurance institution. It provides a reference guide for institutions to understand the salient data related to a specific business process. |
|                          | To use the OIDF application, customers deploy OIDF Analytical Warehouse Model, which is derived from the LDM (blueprint).  |
|                          |  |

| Criteria                                   | Description  |
|--|--|
| OIDF Analytical<br>Warehouse Data<br>Model | <ul> <li>OIDF Analytical Warehouse Data Model is a Physical Data Model that supports data sourcing and reporting related to key analytical use cases in the Insurance industry.</li> <li>The Warehouse Model is a Physical Data Model, unlike the OIDF LDM, meaning that it is readily deployable, and consists of database object definitions, and additional supporting scripts.</li> <li>It is organized into two distinct sets of tables based on purpose:         <ul> <li>The Staging Model: This model facilitates data sourcing from the Insurance provider's internal operational systems such as Policy or Contract systems, investments, Claims systems, Master Data Management systems and so on.</li> <li>The Reporting Model: This model facilitates the storage of outputs from analytical tools, applications, and engines in a manner that is conducive to BI reporting.</li> <li>OIDF Analytical Warehouse Model is typically deployed into production via a set of management tools called the Oracle Financial Services Analytical Application Infrastructure (OFSAAI). The AAI application is a separate product, and is a prerequisite for OIDF (see Infrastructure).</li> </ul> </li> </ul> |
| Supporting Scripts                         | Supporting Scripts are scripts provided as part of the OIDF package for basic operations such as internal data movement between the staging and reporting areas.   |

## **Relationship to Oracle Financial Services Analytical** 2.3 **Applications**

The OIDF is very closely related to the Oracle Financial Services Analytical Applications (OFSAA) in the following ways:

- Data Model
  - OIDF Staging Model provides the complete data sourcing foundation for OFSAA applications. All use case or application-specific input data requirements are captured as part of the Staging Data Model. OIDF Staging Model is a combination of all staging models supplied with each OFSAA application.
  - OIDF Reporting Model provides complete reporting data model common to all the OFSAA Business Intelligence (BI) applications. This includes a single set of conformed dimensions and unified fact tables used for cross-functional reporting. OIDF Reporting Model is the superset of all the BI-application specific reporting models.
  - Synchronized Releases: Staging Model and Reporting Model, which are part of an OIDF release, are updated to reflect prior application-specific releases. This means that the latest release of OIDF (8.0.8.0.0) reflects all prior application releases across OFSAA from a data model perspective, with respect to Staging Model and Reporting Model.
- Infrastructure
  - The Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) is the same infrastructure that is used to deploy and manage an OIDF instance.
  - The same collection of tools (OFSAAI) is used to manage a deployed instance of OIDF.

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

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

## **OIDF Prerequisite Components and Tools** 2.4

The key prerequisites for running the OIDF application are listed as follows:

| Component  | Provider                    | Purpose  |
|--|-----------------------------|--|
| Oracle Financial Services<br>Analytical Applications<br>Infrastructure version 8.0.8.0.0 | Oracle                      | OFSAAI is the platform on which the OIDF application is deployed and operated. It represents OIDF 'runtime' environment, and consists of a number of tools used to manage the data lifecycle within OIDF, from sourcing to reporting*. |
| Oracle Database Enterprise<br>Edition 11gR2 and 12cR1                                    | Oracle                      | OIDF is certified on Oracle Database releases 11gR2 and higher.  |
| ERwin data modeler version 9.64.01   | Computer<br>Associates (CA) | ERwin is a data modeling tool that provides a visual environment to manage the complex enterprise data environment.  |

<sup>\*</sup>OFSAAI, the infrastructure platform consists of its own prerequisites and supporting documentation.

## **Understanding OIDF** 3

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

This chapter covers the following topics:

- Background
- **OIDF** Architecture
- Differences from Traditional Warehouse Architecture
- **Subject Areas Organization**
- **OIDF Logical Data Model**
- **OIDF Physical Data Model**
- Staging Data Model
- Reporting Data Model
- LDM Relationship to the OIDF Physical Model
- **OIDF LDM Content Details**
- Mapping from Logical Data Model to OIDF Staging Area

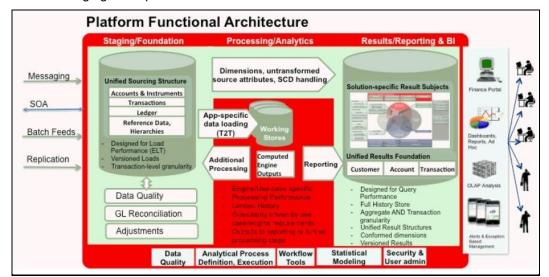
## **Background** 3.1

It is important to note that OIDF architecture differs from 'traditional' data warehouse architecture.

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

### **OIDF Architecture** 3.2

The following figure depicts the OIDF Functional Architecture.



The OIDF 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.

- A data repository whose physical structure is given by the OIDF physical data model (here Physical Data Model = OIDF Staging + OIDF Reporting). This user guide only details the structure and organization of the data repository that is covered by the data models in the OIDF.
- 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:

- A unified data-sourcing area for analytics: The OIDF Staging Data Model provides the basis for central, unified data-sourcing layer for a variety of analytical needs. The staging layer faces the operational (OLTP) and front office systems of an Insurance Company. It consists of tables to capture key business and operational data from these systems, which is then processed by one or more analytical engines.
- A unified reporting/consumption layer: Analytical results can be simple to complex, quantitative and qualitative measures of a provider's Risk, Compliance, Customer and Fund Performance. The OIDF 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 and cross-departmental and cross-functional reporting.
- Additionally, the schema of the reporting area is specifically built for Insurance analytics. As an
  illustration, the reporting area has a 'Run dimension' that is shared across all Bl/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 Insurance
  institutions.
- 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
  OIDF:
  - Metadata Management
  - Data Quality
  - Data Movement
  - Scheduling and runtime operations
  - Security/User management
  - Analytical Process Definition and Execution
- Processing Area: As explained earlier, the primary purpose of the OIDF 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 Policy to Claims to Fund Allocation.
- 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 OIDF recognizes the need for distinct application-specific working stores, separate from the staging and reporting area.

equally provision data out of OIDF by mapping their input requirements appropriately to the OIDF staging area model.

## **ATTENTION** The structure of what 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 OIDF. This is because the OIDF is intended to be an open platform. Other analytical applications and engines can

#### **Differences from Traditional Warehouse Architecture** 3.3

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

| Component  | OIDF   | Traditional BI Architecture   |
|--|--|---|
| Staging Layer  | Common Staging Area (CSA) where data from source systems are staged and is implemented as database schema.   | Usually a file system-based area where file-based extracts (operational images) from source systems are staged prior to loading into a target schema. |
| 3rd Normal Form Operational<br>Data Store/Enterprise Data<br>Warehouse | Does not provide a physicalized model<br>for a 3NF store. The FS LDM can be<br>physicalized as a 3NF store if desired.<br>Operational/fine-grained reporting will be<br>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 OIDF in greater detail.

## 3.4 **Subject Areas Organization**

The Subject Areas are organized to support detailed level analysis related to set higher-level analytical reporting solutions.

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 about 500 fact and dimension tables in the reporting area. The details of the various naming conventions used in OIDF Data Model are explained in Appendix A. For column-level details, see the <u>Technical Whitepaper on Data Model Document Generation</u>, which details how to extract the data dictionary from Erwin section.

**Table: OIDF Subject Areas Organization** 

| Subject Area                            | Description  |
|---|--|
| OIDF Legal Entity Details               | This subject area covers the legal entity or organization's structure related tables.  |
| OIDF Party Contacts                     | This subject area covers the party contact details such as party address, party phone details and email details.   |
| OIDF Party Definition                   | Party here refers to any person or organization who interacts with the company. All the parties associated with insurance company under different roles like policyholder, producer, agents, issuer etc. are loaded together in this entity.   |
| OIDF Party Identification               | This subject area covers the identification details of an individual Party or organization. Identification means the action or process of identifying someone or something or the fact of being identified.  |
| OIDF Party Employment                   | The subject area covers the employment details of an individual Party. This data applies only to Parties who are individuals. A single Party may have multiple employment details.   |
| OIDF Party Exam and Certificates        | The subject are covers the details pertaining to the party's certification and related exams to it. An Exam is the formal verification or validation of information learned/known, typically used to satisfy a requirement for licenses, registrations or other firm education proof. Certification is formal procedure by which an accredited or authorized person or agency assesses and verifies (and attests in writing by issuing a certificate) the attributes, characteristics, quality, qualification, or status of individuals or organizations, goods or services, procedures or processes, or events or situations, in accordance with established requirements or standards. |
| OIDF Party Financials                   | This subject area covers the financial information (Balance-Sheet, Profit and Loss statement and Ratios) of the parties. Balance sheet is prepared as of a particular date (Balance sheet creation date).  |
| OIDF Party Medical                      | This subject area covers all the medical tables related to party medical details such as party medical test details, family medical test data, and party disability details.   |
| OIDF Party Results                      | This subject area covers the party result tables such as party ratings, party party relationship, party party account relationship.  |
| OIDF Party Customer Results             | This subject area covers OIDF Party Customer Results related tables.   |
| OIDF Producer and Producer<br>Agreement | This subject area covers Producer and Producer Agreement tables.   |

| Subject Area                        | Description   |
|-------------------------------------|---|
| OIDF Insurance Contracts            | This subject area covers the insurance contract tables. Contract is defined as where one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder   |
| OIDF Trading and Investments        | This subject area covers OIDF Trading and Investments related tables.   |
| OIDF Capital Borrowings             | This subject area covers OIDF Capital Borrowings related tables. Capital Borrowings refers to borrowing done by Insurance company using debt instruments.   |
| OIDF Capital Instruments            | This subject area covers the capital Instrument details, it refers to an issue of capital instrument to raise funds from market. This primarily covers equity instruments. They may or not be traded in market.   |
| OIDF Fixed Assets                   | This subject area covers OIDF Fixed Assets related tables.  |
| OIDF Financial Assumptions          | This subject area covers the financial assumptions details. Assumption is an estimate of an uncertain variable input into a financial model, normally for the purposes of calculating premiums or benefits. This subject area covers the tables related to Insurance Assumptions such as Fact Insurance Lapse Rate Assumptions. |
| OIDF Demographic Assumptions        | This subject area covers the demographic assumptions details. For example, assumption relates to predicting a person's lifespan, given their age, gender, health conditions and other factors.  |
| OIDF Market Data                    | This subject area covers OIDF Market Data related tables.   |
| OIDF Payment Data                   | This subject area covers OIDF Payment Data related tables.  |
| OIDF Accounting and General Ledger  | This subject area covers the accounting and general ledger tables associated with the insurance company.  |
| OIDF Insurance Transactions         | This subject area covers OIDF Insurance Transactions related tables.  |
| OIDF Insurance Claims               | This subject area covers OIDF Insurance Claims related tables.  |
| IFRS Accounting Outputs             | This subject area covers the IFRS accounting related tables such as contractual service margin, homogenous risk group tables.   |
| OIDF Actuarial Outputs              | This subject area covers OIDF Actuarial Outputs related tables.   |
| OIDF Solvency II                    | This subject area covers OIDF Solvency II related tables.   |
| OIDF Sales and Marketing            | This subject area covers OIDF Sales and Marketing related tables.   |
| OIDF Underwriting Application       | This subject area holds the applications processed in each period, for an analysis over time.   |
| OIDF Underwriting Quotes            | This subject area covers the insurance quotes details. Quotes are subject to change depending on information given at time of the quote.  |
| OIDF Underwriting Crime Data        | This subject are covers the criminal conviction details if the party is involved in any criminal activity. Criminal conviction is the outcome of a criminal prosecution which concludes in a judgment that the defendant is guilty of the crime charged.  |
| OIDF Underwriting Driving Violation | This subject area covers the driving violation details related to the party identifier. Driving violation is any violation of vehicle laws that is committed by the driver of a vehicle, while the vehicle is moving.   |

| Subject Area                          | Description  |
|---------------------------------------|--|
| OIDF Underwriting Life Style Activity | This subject area covers the information about a party's lifestyle activities. This section captures details surrounding the activities a party engages in that may be considered risky by insurance companies. In the Lifestyle Activity object, the more specific experience sub-objects (e.g. Aviation Experience, Racing Experience, Underwater Diving Experience, Climbing Experience, Air Sport Experience, and Foreign Travel) are optional, singly occurring and mutually exclusive. |
| OIDF Commonly Used Tables             | This subject area covers all the common tables such as date, country, and location.  |

The list of solutions supported by Results only OIDF Subject Area are tabulated here.

| Subject Area Name              | Definition   |
|--------------------------------|--|
| ALM                            | Subject Areas corresponding to Asset Liability Management (ALM).   |
| Regulatory Capital Calculation | Subject Area pertains to the Solvency II Regulatory Framework and its reporting requirements as specified in the framework.  |
| PFT                            | Supports reporting related to Profitability analysis, part of the Enterprise Performance Management solution area.   |
| OIPI                           | Supports reporting requirements of Insurance Analytics.  |
| 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.            |
| CRM                            | Part of the Corporate Credit Risk Solution, allows reporting on Credit Limits.   |
| Market Risk                    | Support for Market Risk analytics  |
| IFRS 17                        | Supports the data requirement pertaining to the IFRS 17.   |
| Centralized Reporting          | Supports the centralized reporting for an insurance company covering insurance life cycle activities from underwriting to Claim settlement including risk management use cases as mentioned above. |

## **OIDF Logical Data Model** 3.5

The previous sections have discussed the components of the OIDF Physical Data Model (or the OIDF 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.

| Area             | Logical Data Model  | OIDF Physical Model  |
|------------------|---|--|
| Purpose          | Generic blueprint of the data reduced by the business processes of an Insurance Company.                          | Designed for analytical processing (IFRS17, Solvency, Customer Insight, Risk, Regulatory Reporting).                       |
| Format/Structure | 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 supporting reference data requirements.                       | The business and reference data required for a set of analytical use cases. However, can be extended to serve other needs. |

# 3.6 OIDF Physical Data Model

The OIDF Physical Data Model is the primary deployed structure in the OIDF. As detailed in the architecture section, it has the following key characteristics:

- 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).
- Use-case Driven: The OIDF Physical Data model is driven by a set of clearly identified analytical use cases spanning Performance, Experience, and Compliance.
- Extensible: While the OIDF Physical Data Model satisfies a very large number of analytical use cases across Insurance Contracts, Claims, Underwriting, Actuarial Assumption, Financial Assumptions, Solvency, IFRS 17 subject areas, customers can find the need to customize the model for a specific installation.

These customizations can be done in accordance with guidelines published in the Chapter "Using OIDF," section of this manual.

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

- Staging Data Model
- Reporting Data Model

# 3.6.1 Staging Data Model

## 3.6.1.1 Overview/Design

The Common Staging Area Model (CSA) represents the point of entry of data into the OIDF. The CSA provides a simplified, unified data sourcing area for inputs required by analytical applications and engines. It

consists of over 400 tables and nearly 9000 columns organized into distinct subjects. The salient features of the CSA are as follows:

- Mapping to Analytical Use Cases: Since the primary purpose of the OIDF is to be a data repository supporting analytics, each database object in the OIDF 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 Userdefined Properties (UDPs), and can be leveraged to reduce the scope of data gathering efforts by focusing on clearly-defined end use cases such as Market Risk Analytics, 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 follows:

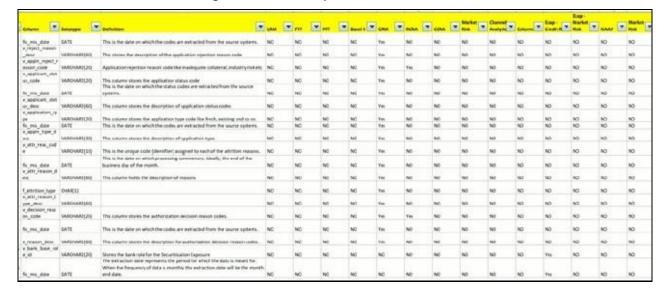


Figure 4. Download Specification

- The Mappings can be generated from the OIDF ERwin file using ERwin's reporting tools.
- 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 Policy Administration, Claims Processing and Fund Management to multiple analytical applications that process this data.
- Typically, this data is extracted from source systems and loaded into OIDF directly, or alternatively into a pre-defined file-based operational image area from which it is subsequently loaded into the OIDF schema. In a large Insurance institution, it is not unusual to have 10s to 100s of millions of policies, and claims.
- 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.

- 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 an Insurance institution.

## 3.6.1.2 Details of the Staging Data Model

The CSA model consists of over 400 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 the analytical application that requires it:

- Business Data: This set of tables captures the actual business events and the resulting state of an Insurance Company from those business events. The OLTP systems (or Transactional Systems) capture this information resulting from the execution of the provider'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 nonfinancial transactions.
  - State: The net effect of business transactions is to change the provider's overall financial/nonfinancial state. This state information is typically captured by product-specific systems in a Insurance Institution.
- Reference/Master Data: Events and state refer to 'business activities' of an Insurance institution. To provide more detail on these, Insurance institution 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 given transaction or account. For example an Insurance institution has a master list of products that it sells to customers (Product Master). Similarly, it has a list of customers (Customer master). These and other lists provide context for each business transaction or account. Insurance Institution 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.

#### 3.6.2 **Reporting Data Model**

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 OIDF 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:

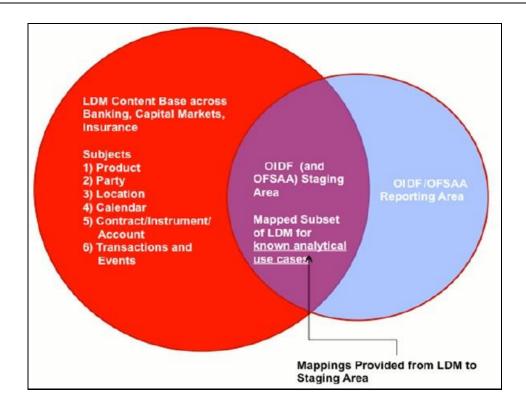
- Design: The Reporting Area data model is a dimensional data model. This means that it consists primarily of central fact tables (de-normalized), related to multiple dimension tables, also called a Star Schema. Additionally, the dimension tables are shared across the star schemas in the reporting mode, meaning they are Conformed Dimensions. This means that Drill-across reporting is naturally supported by the OIDF design.
- Additionally, in keeping with the key principle of the OIDF, the Reporting Model is organized by use cases to facilitate reporting and BI in a wide variety of areas.
- Support for multiple scenarios of analysis: 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.
- 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 (for example: Marketing Data Marts, Risk Data Marts, Customer Data Mart), that provide the necessary reporting and analytics relevant to a particular business function in the Insurance Institution.
- 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.

## 3.7 LDM Relationship to the OIDF Physical Model

The coverage of the OIDF LDM in terms of core business can be applied to:

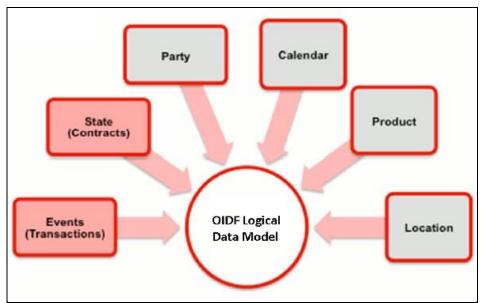
Claims

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



### 3.8 **OIDF 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 an Insurance institution. The following is the representation of Key Subjects in OIDF Logical Data Model.



Within the above subject areas, the FS LDM has 800+ entities. The various naming conventions used in OIDF 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.

## 3.9 Mapping from Logical Data Model to OIDF Staging Area

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

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

- LDM\_Staging\_mapping\_Application
- LDM\_Staging\_mapping\_Campaign
- LDM\_Staging\_mapping\_Claim
- LDM\_Staging\_mapping\_Collateral
- LDM\_Staging\_mapping\_Collections and Recovery
- LDM\_Staging\_mapping\_Contract
- 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' is dropped from the model in the next major release.

## **Using OIDF** 4

This chapter details on how the OIDF 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 OIDF Installation. The Data Dictionary and Download Specifications sections explains how the selfdocumenting 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 OIDF**
- **OIDF Supporting Documentation**
- **Data Dictionary**
- **Download Specifications**
- Extending OIDF Physical Data Model

## **Delivery Mechanism** 4.1

OIDF being a collection of data model artifacts, includes both a readily deployable model (the OIDF Physical Data Model) as well as a reference data model (the OIDF Logical Data Model). Both the data models (Physical and Logical) are delivered as ERwin files. The OIDF 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 version of ERwin supported is 7.1+.

NOTE

OFS AAI supports data model upload for data models generated using ERwin. For information on compatible versions, refer to the corresponding release Technology Matrix.

## 4.2 **Installing OIDF**

As detailed earlier, OIDF requires the Oracle Financial Services Analytical Application Infrastructure release to deploy and operate.

Refer to Oracle Insurance Data Foundation Installation Guide Release 8.0.8.0.0 (OHC) for step-wise instructions how to configure and install OIDF into an AAI instance.

## 4.3 **OIDF Supporting Documentation**

The preceding sections have provided an overview of the organization of the OIDF, and its various component data models. Appendix A, page A-1 explains the naming conventions used in OIDF data model.

The OIDF 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 OIDF can be performed within ERwin, and the updated documentation is retained in the file in the form of additional metadata.

The two key detailed artifacts of OIDF documentation that can be extracted from within the ERwin data model are:

- **Data Dictionary**
- **Download Specifications**

For more information on Dimension Management and AMHM, refer to the Dimension Management chapter in Oracle Financial Services Analytical Applications Infrastructure 7.3 User Guide and Dimension Load Procedure section in Oracle Financial Services Analytical Applications Data Model Utilities 7.1 / 7.2 User Guide.

## 4.4 **Data Dictionary**

The data dictionary for OIDF 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.

## **Download Specifications** 4.5

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 OIDF 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.

## **Extending OIDF Physical Data Model** 4.6

Oracle Insurance Data Foundation (OIDF) Physical Data Model (PDM) design evolves as the analytical use cases covered by the OIDF 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 OIDF 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 OIDF.

This section consists of the following sub-sections:

- Customization Process Guidelines
- Staging Area Design Guidelines
- Results Area Design Guidelines
- **Upgrading Data Model**

# 4.6.1 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. OIDF 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, 9.5.x, and 9.6.x versions.

# 4.6.2 Staging Area Design Guidelines

Following are the Staging Area Design Guidelines:

- Ensure that the naming conventions as detailed in Appendix A, page A-1 section are followed.
- 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.
- All Staging Area tables must have a column that identifies the system from where data is sourced (source system ID).
- The code columns in master data tables and tables that contain dimension data should be designed to hold alphanumeric values.
- 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, page A-1 section on the use of defined Domains.
- 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 OIDF.
- OIDF 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.

- 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).

### 4.6.3 **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:

- Ensure that the naming convention for results tables and columns detailed in Appendix A, page A-1 section is followed.
- 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.
- The common accounts summary fact table.
- (FCT\_COMMON\_POLICY\_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.

- 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 should be 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.

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.

- 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.
- Support for full history: Any new tables in the Results area should be designed to support maintenance of full history.

### **Upgrading Data Model** 4.6.4

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.

### 5 **Application of Data Domain Browser in OIDF**

This chapter provides information about Data Domain Browser usage in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- Required Software Licenses to Use Data Domain Browser
- Introduction to Data Domain Browser
- OIDF Subject Areas Enabled in Data Domain Browser
- Segments
- Tags

### Required Software Licenses to Use Data Domain Browser 5.1

The software licenses that must be installed to access and use Data Domain Browser for OIDF application

- Oracle Financial Services Data Integration (OFS DI) Application Pack v8.0.7.2.0 ML release patch 30268362 available at My Oracle Support.
- Oracle Insurance Data Foundation Pack v8.0.8.1.0 ML release patch 30257021 available at My Oracle Support.

#### 5.2 Introduction to Data Domain Browser

Data Domain Browser provides Data Foundation customers a User Interface to view and query the erwin data model over physical data model reports that Data Foundation provides currently. In addition, Data Domain browser also provides all the information like physical formats along with granularity and technical details such as data type. One can view Data Domain Browser as a logical representation of Data Foundation. This equips User Interface with the following factors to provide pre-built grouping of entities and data elements to enhance search by the end-user:

- To help on how to search data model.
- To understand entity relationship.
- To query the data model.

The features of Data Domain Browser are to help the user:

- To view huge list of entities available in Data Foundation in a pre-grouped format.
- To filter a particular entity or a set of entities using specific filter criteria.
- To view the data elements and their properties within a chosen entity.
- To search within the data elements using specific search criteria.

NOTE

For detailed information about Data Domain Browser and its User Interface, see the latest version of OFS Data Integration Hub (DIH) User Guide.

# 5.3 OIDF Subject Areas Enabled in Data Domain Browser

In reference to the data model Excel report, the Subject Area defines the information related to which Data Connector must be mapped to which source system or Product. To achieve this, populate the ADIs (Application Data Interface). Application Data Interface enables to view the logical definition of OFSAA physical entities of Staging and Result Areas. For more information, see the latest version of <a href="Data">Data</a> Integration Application Pack User Guide.

Out of all OIDF Subject Areas, only following are scoped in 8081 release and this feature for the remaining Subject Areas is on roadmap:

# Party Subject Area

Party refers to any person or organization that interacts with the Insurance Company, and Party attributes refer to the information elements associated with any person or organization that interacts with the Insurance Company. A Party can be a customer, issuer, guarantor, etc.

Party Subject Area consists of tables related to Party Definition, Party Contact Details, Party Identification Document, Party Medical Subject Area, Party Financial Data/Employment Attributes, Party Producer Exam, Certification, and License; Party Results, and other Party attributes such as Party type, relationship type between two Parties, Relation Role type, and Reinsurer type.

# Insurance Underwriting Subject Area

Insurance Underwriting describes the process of assessing risk, ensuring that the cost of the cover is proportionate to the risks faced by the Party or the organization concerned. It evaluates risk and exposures of potential Party or organization. Insurance Company decides the coverage that the Party or organization must receive, and the premium associated with the coverage or whether to accept the risk and insure them.

When an applicant applies for insurance, the Insurance Company must look at different criteria to decide if they are going to accept the application for coverage. As a result, the Insurance Company creates and documents detailed information about the applicant and this process is called as Underwriting Application.

Insurance Underwriting Subject Area consists of Underwriting Application that contains details about product class, application type, application group, application status, rejection reason, underwriting issue, application party role map, etc. Insurance Underwriting Subject Area also consists of Insurance Quotes, quote source, source method, submission method, declination type, and reports; and for risk analysis consists of details related to risk type, risk sub-type, and underwriting product class details based on the risk factors such as criminal conviction details, crime type, driving violation of vehicle laws, and lifestyle activity details of the insurer

## Insurance Contracts Subject Area

Insurance Contract is a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

Insurance Contracts Subject Area consists of Contracts, Coverages, Insurance Participation, Group Insurance, Policy Schedules, Loans, Funds, Policy Conversions, and Reinsurance Contracts.

Contract attributes cover contract identifier, product identifier, sum insured, origination date, purchase date, maturity date, policy status etc. The Contracts tables consists of details about different categories of contracts such as Annuity, Health Insurance, Life Insurance, Property and Casualty, Retirement, Reinsurance Contracts Held, and Reinsurance Contracts Issued.

The Coverage tables consists of details about Policy Coverage, Age Amount Product, and Embedded Options. In case of group insurance, policy coverages refers to the single aggregated benefit or rider bundled as a part of product across all group members.

The Reinsurance Contracts tables store details related to insurance reserve function, consequences of losses, tax reimbursement calculation method, basis of calculating the standard GAAP reserve, Reinsurance Contract type, insurance sub-standard policy reserve method, Reinsurance accounting basis, reserves calculation method, insurance sub-standard reserve calculation basis, basis of the contract limits and retentions applicable to the claim, reserve valuation type, level of retention on the coverage, Reinsurance business origin code, the list of all policies, a reinsurance contract held by the entity, a reinsurance contract issued by the entity, mapping between Placed Collateral and Reinsurance Contract, and mapping between Mitigant and Reinsurance Contract.

## **Actuarial Subject Area**

Actuarial Subject Area consists of Actuarial Assumptions and Actuarial Outputs.

An Actuarial Assumption is an estimate of an uncertain variable input into a financial model, normally for the purposes of calculating premiums or benefits. Actuarial Assumptions consists of details related to the set of Actuarial Assumptions used for valuations, and Premium Rates. Two types of Actuarial Assumptions tables are Financial Assumptions tables and Demographic Assumptions tables.

Financial Assumptions consists of assumptions related to interest rates, lapse rate assumptions, benchmark details for Cost of Living Adjustments, and Premium Rate.

Demographic assumptions consists of assumptions related to mortality, disability, termination of employment, and retirement.

Actuarial Outputs consist of the Actuarial Assumed Policy Summary table, and Actuarial Cash Flows, Calculations, and Result Areas Summary tables.

- Accounting and General Ledger Subject Areas
  - Accounting Subject Area

Insurance Policy Transactions are about accounting transactions done for a given policy. They are sourced from respective accounting systems in the Insurance Company.

Accounting Subject Area consists of Policy Transactions and Policy Commission.

General Ledger Subject Area

A General Ledger is the foundation of a financial system, which is used to store and organize financial data. General Ledgers are used to create the financial statements of a company. A General Ledger account is an account or record used to sort, store and summarize the transactions of a company. Transactions are posted to individual sub-ledger accounts as defined by the chart of accounts of that company. A Legal Entity in the Insurance institution can maintain the same General Ledger data (either solo or consolidated) in one or more source systems.

General Ledger Subject Area consists of GL Data, GL to Management Reporting, and mappers for GL to Management Reporting Result table.

### 5.4 **Segments**

Segment is Business Segment, which refers to the group of products distinctly separated from remaining businesses based on product attributes, customers, geography or market places.

If Subject Area represents vertical depth, Business Segment represents horizontal extent of functional features. As a user, when you search for a particular functionality or feature, you must look at the Subject Area. In addition, when you search for commonality across different Business Units or Departments, you must look at Business Segment.

Business Segment groups the entities across Subject Areas. For example, whereas Underwriting, Insurance Contracts, Claims, Accounting etc. are the Subject Areas; and Life Insurance, Annuity etc. are the Business Segments.

The Business Segments added for the current release are:

- **Annuity Contracts**
- **Health Insurance Contracts**
- Life Insurance Contracts
- **Property and Casualty Insurance Contracts**
- **Retirement Contracts**
- Reinsurance Contracts Held
- Reinsurance Contracts Issued

### 5.5 **Tags**

OIDF packages Subject Areas and Tags into the data model Excel report.

Tags refer to the label attached to the data element for the purpose of identifying similar data elements across entities. Therefore, tags are grouped together.

### 5.5.1 **How Tags Help the User?**

This section explains about how the Tags in Data Domain Browser help the user in exploring data model.

The Insurance Contracts components consists of Annuity Contracts, Health Insurance Contracts, Life Insurance Contracts, Property and Casualty Insurance Contracts, Retirement Contracts, Reinsurance Contracts Held, and Reinsurance Contracts Issued and these belong to the Insurance Contracts Subject Area. Therefore, under the Insurance Contracts Subject Area, these components can be considered as Segments. This represents the Business Segment relationship with its Subject Area.

Insurance Contracts components consist of tables that store Monetary Amounts. As a result, the Insurance Contracts tables that store Monetary Amounts can be grouped under a Tag named as "Contract Monetary Amounts". This represents the Business Segment relationship with its Tag.

Tags moves across Business Segments. Now, for a given Subject Area, you can search for Monetary Amounts across all Segments with the help of the "Contract Monetary Amounts" tag. Also, you can search for Monetary Amounts across all Subject Areas with any of the Insurance Contracts component as the Segment, with the help of the "Contract Monetary Amounts" tag.

### **Data Flow Process for Data Foundation** 6

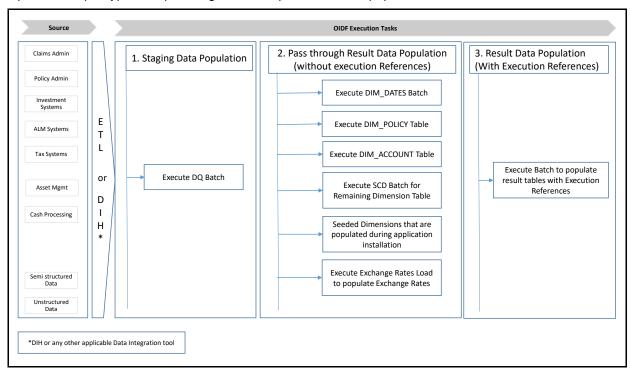
This chapter provides information about data flow process for the Data Foundation application to populate the Result tables.

This chapter includes these topics:

- Technical Flow to Populate the Result Tables
- Prerequisites for the Execution Processes
- **Seeded Data**
- Slowly Changing Dimension (SCD)
- Load Key Dimensions using AMHM
- Table to Table (T2T)

### 6.1 **Technical Flow to Populate the Result Tables**

This representative data flow diagram of the Data Foundation application illustrates its data flow stages, input and output types, output usage, and the processes that populate results.



The data flow process can be categorized into two main categories. They are:

1. Populating Stage Tables

In this process, data is populated into the Data Foundation Stage master tables and Stage tables using these sub-processes:

- a. Run Custom ETL/DIH.
- b. Execute Data Quality batches.
- 2. For more information about loading Stage tables, see the section Loading OFSAA Staging Tables.

- 3. Populating Result Tables
- 4. In this process, data is populated in Dimension and Result tables using Stage tables. The sequence of sub-processes are:
  - a. Dimension Loading Process:
    - i. Populate DIM\_DATES table.
    - ii. Seeded Dimensions that are populated during the installation process.
    - iii. Populate DIM\_ACCOUNT and DIM\_POLICY tables.
    - iv. Execute other SCD batches to populate corresponding Dimensions.
    - ٧. Load key Dimensions using AMHM.
  - **b.** Loading data into the Result tables using T2T batch execution process.

These Result tables are used by other Analytical Applications to create reports. Some of the applications are listed here:

- IFRS17
- Solvency II
- **Customer Insight**

#### 6.2 **Execution Processes**

### 6.2.1 **Prerequisites for the Execution Processes**

After OIDF application installation is successfully complete, as a prerequisite to initiate the SCD process or T2T process, perform these steps:

# **NOTE**

This procedure must be performed once only after a fresh installation of the application and also after installing an upgrade.

In this section, ensure that you execute the batch corresponding to the required Data Quality. To access the Run Name/Batch Name, and the order of execution, see the latest version of OIDF Run Chart.

- 1. Complete the OIDF application installation and post-installation configuration procedures successfully. For detailed procedures, see Oracle Insurance Data Foundation Application Pack Installation Guide Release 8.0.8.0.0.
- 2. Populate Data into the Stage Master Tables.

Populate data into all the Stage Master tables with all the required records by loading custom ETL/DIH.

NOTE

Data is already loaded into the OIDF Stage Master tables (see Populating Stage Tables in the section Technical Flow to Populate the Result Tables).

3. Populate the DIM DATES table.

To populate the DIM DATES table, see Time Dimension Transformation.

4. Execute the Data Quality (DQ) batches.

Data, required to execute a DQ, is already loaded into the OIDF Stage tables (see the section Technical Flow to Populate the Result Tables).

To execute the DQ batches, see the DQ Group Execution section.

### 6.2.2 **Dimension Loading Process**

Data into the Dimension tables can be loaded using one of the following processes:

- Seeded Process.
- Slowly Changing Dimension (SCD) Process.
- Loading Key Dimensions using AMHM.

#### 6.2.3 Seeded Data

This is an automatic process wherein the Seeded data for Dimensions, which are packaged within the installer, are populated during the installation.

NOTE

To access the Seeded data for Dimensions, see the latest version of OIDF Run Chart.

### **Slowly Changing Dimension (SCD) Process** 6.2.4

# **NOTE**

If you are executing the Dimension SCD Process after a fresh installation or after installing an upgrade, or when there are changes made in the Stage table data, first perform steps given in the Prerequisites for the Execution Processes section.

Ensure you execute the batch corresponding to the required Dimension table. To access the Run Name/Batch Name, and the order of execution, see the latest version of OIDF Run Chart.

The SKeys of the Dimension tables are used to structure the Result tables (Fact tables) for populating the data. Therefore, this process serves as the prerequisite to the T2T Loading process.

For functional information about Dimension loading, see the chapter About Dimension Loading Process.

A Slowly Changing Dimension (SCD) is a dimension that stores and manages both current and historical data over a period in a data warehouse. SCDs are dimensions that contain data, which changes slowly rather than changing on a time-based regular schedule.

In the SCD process, the SCD batch execution is used to populate data in the Dimension tables.

To populate data in a Dimension table:

- Execute the SCD Batch of the DIM ACCOUNT table.
- 2. Execute the SCD Batch of the DIM\_POLICY table.

- Execute the <INFODOM> DATA FOUNDATION SCD batch for the required Dimension table.
- Verify log files and check error messages, if any.

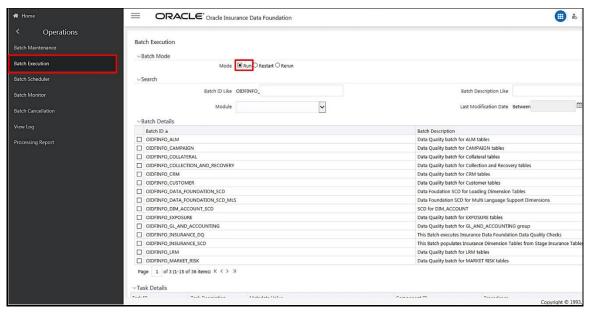
#### 6.2.4.1 **Execute the SCD Batch of the DIM ACCOUNT Table**

To execute the SCD batch of the DIM\_ACCOUNT table, perform the steps in the following section.

#### 6.2.4.1.1 **Execute the SCD Batch**

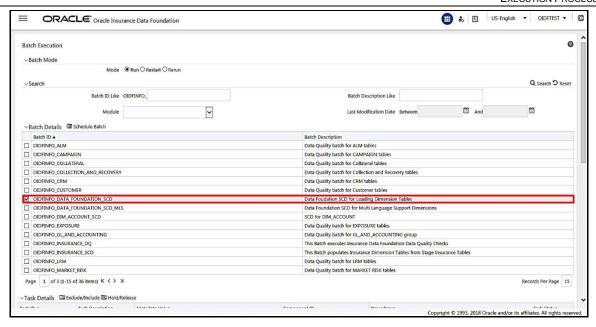
To execute the SCD batch:

- **1.** Navigate to the Batch Execution page.
  - Click Oracle Insurance Data Foundation > Operations > Batch Execution.
- 2. In the Batch Mode section of the Batch Execution page, select the Run option.



- 3. Select the Batch ID.
- **4.** In the **Batch Details** section, search and select the required Batch ID:
  - For DIM\_ACCOUNT table, select the Batch ID < INFODOM> DIM ACCOUNT SCD.
  - For the DIM\_POLICY table, select the Batch ID <INFODOM> INSURANCE SCD and include only DIM\_POLICY related Stage table tasks.
  - For all other Dimension tables, select the Batch ID <INFODOM> DATA FOUNDATION SCD.

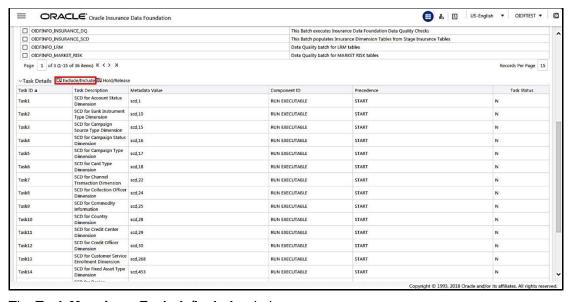
The Task Details section lists the tasks corresponding to the selected Batch ID. The list consists of all the Stage tables that are mapped to Dimension tables.



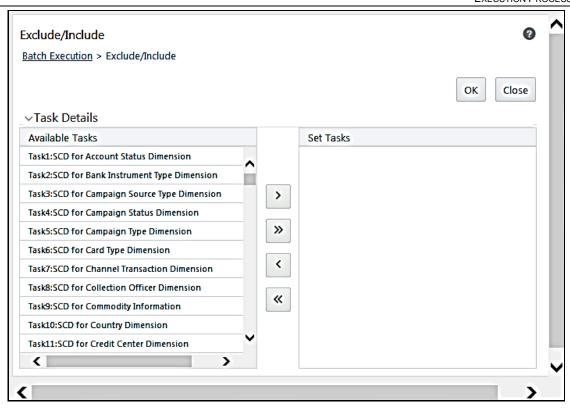
- 5. Exclude/Include tasks from/into the SCD batch.
  - a. Make a note of the Metadata Value (SCD map reference number) and the Task ID for the required Dimension table.

**NOTE** To populate the Dimension table from its corresponding Stage Master table, use SCD packaged in OIDF with the respective Map Reference Number.

b. To exclude or include a task from or into the required SCD batch, in the **Task Details** section, click the Exclude/Include icon.

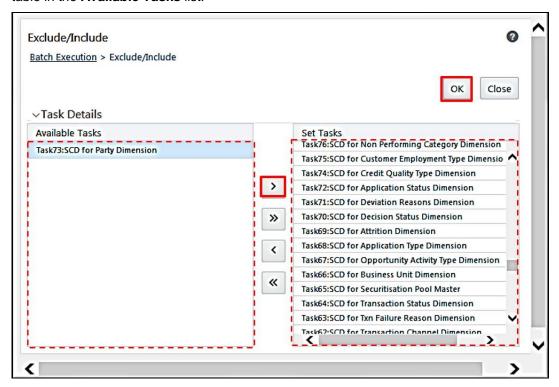


c. The Task Mapping - Exclude/Include window appears.

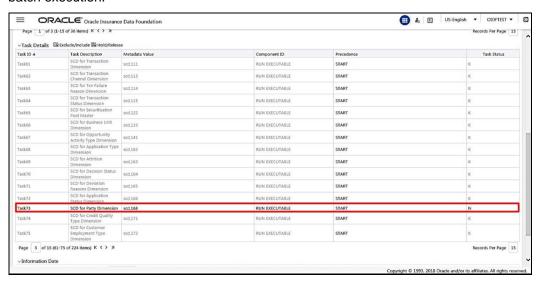


# d. Include/Exclude tasks.

In the Task Details section, select the tasks that must be excluded from the batch execution procedure, and click > to move those tasks from the Available Tasks list to the Set Tasks list. Retain the task (Task ID noted in the earlier step) related to the currently required Dimension table in the Available Tasks list.



- e. Confirm task inclusion/exclusion.
  - i. To save the changes, click **OK**. The warning message: If you exclude a task, it will be skipped when executing the batch but, the precedence will not be altered. Do you want to exclude the selected task(s)? appears.
  - ii. To proceed, click OK. The Task Details list consists only of tasks present in the Available Tasks list. For example, in the following screenshot, the highlighted task is executed during batch execution.



6. Select the FIC\_MIS date.

In the **Information Date** section, click the calendar icon and select required date. This date is the FIC\_MIS date populated in the DIM\_DATES table.



7. Execute the SCD batch.

Click Execute Batch to run the selected SCD batch with the selected Task:

■ For DIM\_ACCOUNT table, execute the Batch ID < INFODOM> DIM ACCOUNT SCD.

- For the DIM\_POLICY table, execute the Batch ID <INFODOM>\_INSURANCE\_SCD and include only DIM\_POLICY related Stage table tasks.
- For all other Dimension tables, execute the Batch ID < INFODOM>\_DATA\_FOUNDATION\_SCD.
- 8. Confirm the SCD batch execution.
  - a. A pop-up message: Do you want to execute the batch for MIS Date <MIS\_Date>, appears. To execute the batch, click OK.
  - **b.** An acknowledgment message appears. Click **OK** to continue. The SCD batch is executed. As a result, data is populated in the target Dimension table.

# 6.2.4.2 Execute the SCD Batch of the DIM\_POLICY Table

**NOTE** 

To load data into the DIM\_POLICY table, execute the SCD batch for all the corresponding stage tables.

To execute the SCD batch of the DIM\_POLICY table, see the section **Execute SCD Batch**.

# 6.2.4.3 Execute the <INFODOM> DATA FOUNDATION SCD Batch for the Dimension Table

## NOTE

If you are executing this Dimension SCD Process after a fresh installation or after installing an upgrade, or when there are changes made in the Stage table data, first perform steps given in these procedures:

- 1. Prerequisites for the Execution Processes
- 2. Execute the SCD Batch of the DIM\_ACCOUNT Table
- 3. Execute the SCD Batch of the DIM\_POLICY Table

To execute the <INFODOM> DATA FOUNDATION SCD batch:

- 1. Verify presence of data in the Stage Master table.
- 2. Execute the SCD batch.
- 3. Check the execution status of the SCD batch.

# 6.2.4.3.1 Verify Presence of Data in the Stage Master Table

Verify if data is present in the Stage master table corresponding to the required Dimension table with all the required records.

**NOTE** 

Data is already loaded into the OIDF Stage Master tables (see the section <u>Technical Flow to Populate the Result Tables</u>).

### 6.2.4.3.2 Execute the SCD Batch

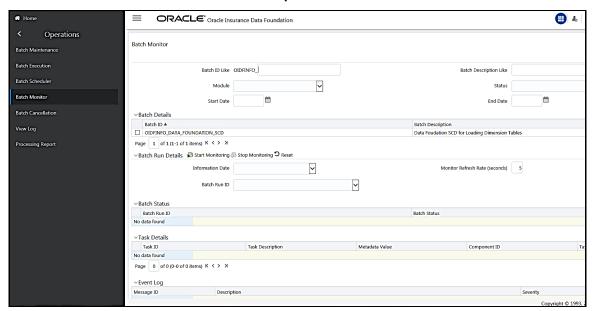
To execute the SCD batch, see the section Execute the SCD Batch.

#### 6.2.4.3.3 Check the Execution Status of the SCD Batch

To check the execution status of the SCD batch:

1. Navigate to the Batch Monitor page.

Click Oracle Insurance Data Foundation > Operations > Batch Monitor.



2. Select the Batch ID < INFODOM> DATA FOUNDATION SCD.

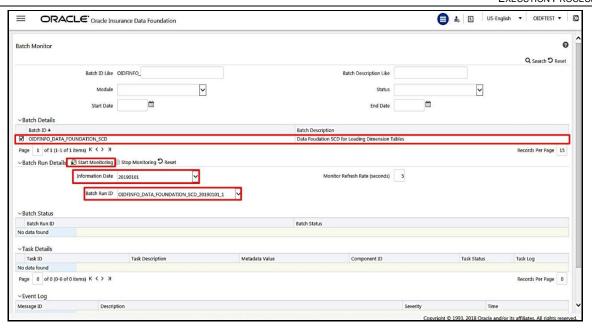
The Batch Monitor page appears on the right hand side. In the Batch Details section, select the Batch ID that was executed during the Execute the SCD batch step i.e., select the <INFODOM> DATA FOUNDATION SCD Batch ID.

3. Select the FIC\_MIS Date and Batch Run ID.

In the Batch Run Details section, click the Information Date box and select the required FIC\_MIS Date. The SCD batch was executed on this date.

Then click the **Batch Run ID** box and select the required value.

Click the Start Monitoring icon.



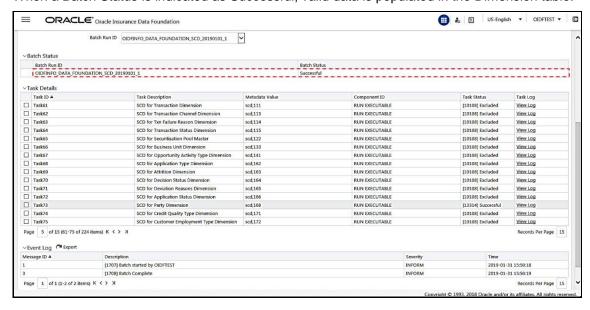
4. Check the Batch Status.

In the Batch Monitor page, the Batch Status, Task Details, and Event Log sections appear in addition to the existing details.

The types of Status messages are:

- Not Started
- Ongoing
- Failure
- Successful

When a Batch Status is indicated as Successful, valid data is populated in the Dimension table.



#### 6.2.4.4 **Verify Log Files and Check Error Messages**

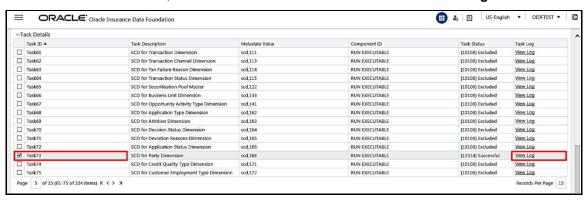
Use one of two methods to access the SCD batch execution log files in order to view the complete log generated for the SCD batch execution.

- View and download the log files from the application UI.
- View log files in the application server.

#### 6.2.4.4.1 View and Download the Log Files from the Application UI

To view and download the log files from the application UI:

1. In the Task Details section, select the task that was executed and click View Log.



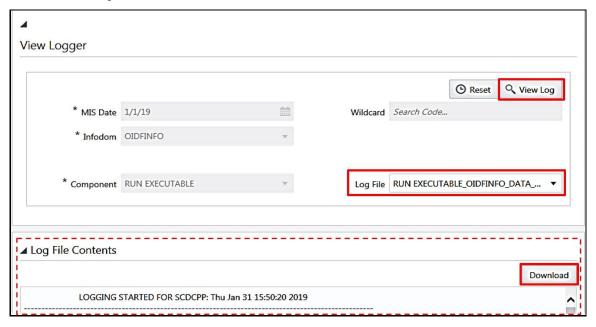
**2.** Select and view the log file:

The View Logger pop-window appears.

In the Log File box, select the required file, and then click View Log. The complete log file content appears in the Log File Contents section.

Two types of log files are generated:

- SCDCPP.log
- FICGEN.log



**3.** To download a copy of the log file content to the system, click **Download**.

#### 6.2.4.4.2 View Log Files in the Application Server

To view the execution log file on the application server:

Go to the path ftpshare/logs/<Run Date>/<infodom>/RUN EXECUTABLE.

**NOTE** 

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

#### 6.2.4.4.3 **Check the Error Messages**

To check the error messages:

Open the log file present in the ftpshare/logs/<Run Date>/<infodom>/RUN EXECUTABLE folder for Dimension tables.

#### 6.2.4.5 **Post SCD Process**

When the SCD process is complete, individual numeric Surrogate Keys are generated for each identifier associated with that Dimension table. This SKey is unique within each Dimension table. The SKeys of the Dimension table are used to structure the resulting tables (Fact tables) for populating the data.

The Dimension table is joined with the Reporting or Processing tables.

NOTE

To access the list of all Stage master tables, see the SYS TBL MASTER table.

To check the mapping from a Stage table column to Dimension table column, see the SYS\_STG\_JOIN\_MASTER table using Map Reference Number.

For more information about the Dimension table loading process, see the chapter About Dimension Loading Process.

### 6.2.5 Loading Key Dimensions using AMHM

To load key Dimensions using AMHM (Attributes, Members and Hierarchy Management), refer to the Dimension Management chapter in Oracle Financial Services Analytical Applications Infrastructure 7.3 User Guide and Dimension Load Procedure section in Oracle Financial Services Analytical Applications Data Model Utilities 7.1 / 7.2 User Guide.

### 6.2.6 **Table to Table (T2T) Loading Process**

T2T batch execution process is used to load data into the Result tables.

NOTE

If you are following this T2T Process after the first ever application installation or after the upgrade installation, then first perform steps in these procedures:

- Prerequisites for the Execution Processes
- Execute the SCD Batch of the DIM ACCOUNT table
- Execute the SCD Batch of the DIM POLICY table
- Execute the <INFODOM> DATA FOUNDATION SCD batch for the required Dimension table

To access the Run Name/Batch Name, and their order of execution, see the latest version of OIDF Run Chart.

For information about loading multiple load runs, see the chapter Loading Multiple Load Runs in OFSAA.

To load data into the Result tables using the T2T loading process:

- 1. Prerequisites for loading T2T.
- 2. Set the Run Parameters.
- 3. Save the Run Parameters.
- 4. Execute the Batch for T2T.
- 5. Check the Batch Execution Status of T2T.
- 6. Verify T2T Log Files and Check Error Messages.

#### 6.2.6.1 **Prerequisites for Loading T2T**

To Resave hierarchies:

- 1. Navigate to the Save Metadata page.
- 2. To load values for the Reporting Currency parameter and the Legal Entity parameter (in the steps Set Run Default Parameters and Set Run Execution Parameters), save the following hierarchies:
  - Legal Entity Code for Run (HOIDF001)
  - Reporting Currency Code for Run (HOIDF002)
  - Legal Entity Hierarchy for Run (HOIDF003)
  - User Group Hierarchy (H\_GROUP)

#### 6.2.6.2 Set the Run Parameters

In the Run Management page, T2T Run parameters are setup. After creating the Run parameters, T2T batch can be executed either in the Run Management section or in the Batch Execution section.

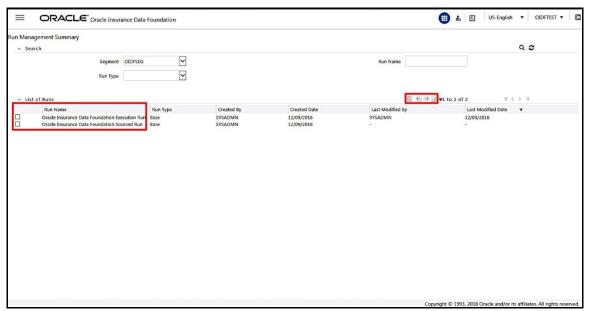
**NOTE** 

Run Management feature is used to execute Run with parameters during the T2T process. OIDF Run consists only of T2Ts and a DT. For detailed information about the Run Management, see the chapter About Executing Run through Run Management.

To set Run parameters for a T2T batch:

**1.** Navigate to the *Run Management Summary* page:

# Click Oracle Insurance Data Foundation > Run Management > Run Management. The Run Management Summary page appears.



2. Select the Run Name.

In the List of Runs section, select the required Run Name. Select either Oracle Insurance Data Foundation Execution Run or Oracle Insurance Data Foundation Sourced Run.

- 3. OIDF application supports two types of Run processes.
  - Oracle Insurance Data Foundation Execution Run

For data movement in Run enabled tables, this Run can be executed any number of times per day with each unique Run SKey.

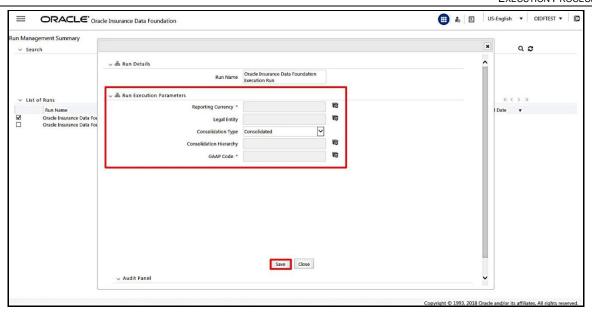
Oracle Insurance Data Foundation Sourced Run

For data movement from Stage tables to Result tables, this Run can be executed once per day, where the Result tables do not consist of Run SKey.

4. Set Run Default Parameters.

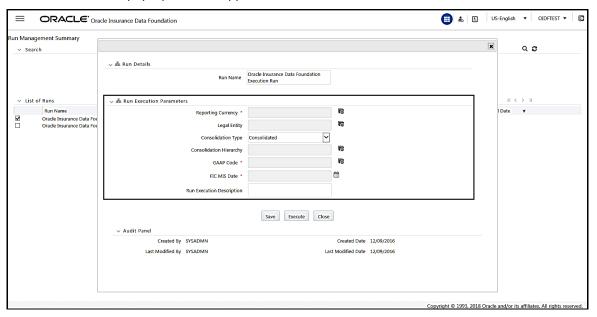
Click the Run Default Parameters icon. A pop-up window appears. Select required values for the following and click Save.

- Reporting Currency
- Legal Entity
- Consolidation Type
- Consolidation Hierarchy
- **GAAP Code**



5. Set Run Execution Parameters.

In the Run Management Summary page, for the selected Run Name, click the Run Execution Parameters icon. A pop-up window appears.



6. Select the FIC\_MIS date.

The values for the fields Reporting Currency, Legal Entity, Consolidation Type, Consolidation Hierarchy, and GAAP Code are populated in the earlier step.

Select the required Run date using the FIC MIS Date calendar icon.

Type a description in the Run Execution Description field. Use this is the description in the Batch Execution page to search for required batch.

Save the Run parameters in the next procedure.

#### 6.2.6.3 Save the Run Parameters

After configuring the required parameters, save the Run parameters.

To save the Run parameters:

- 1. In the Run Management Summary page pop-up window, click Save.
- 2. A batch is created consisting of all the defined Run Execution Parameters.

#### 6.2.6.4 **Execute the Batch for T2T**

After saving the Run parameters, execute the batch in the Run Management Summary page pop-up window or in the Batch Execution window.

#### 6.2.6.4.1 **Execute the Batch for T2T in Run Management Summary**

To execute the batch for T2T in the *Run Management Summary* page:

- In the Run Management Summary page pop-up window, click Execute.
- 2. A batch consisting of all the defined Run execution parameters is created and executed immediately.
- 3. Check the Status of the executed Run in the Batch Monitor page or in the Run Execution Summary page. For detailed information, see Check the Batch Execution Status of T2T.

**NOTE** 

When executing Run through Run Management, Run Skey auto-generates and stamps against each record. The DIM\_RUN table stores Run SKey.

- 4. Make a note of the Run ID and Batch ID.
- 5. To verify the T2T log files, see Verify T2T Log Files and Check Error Messages.

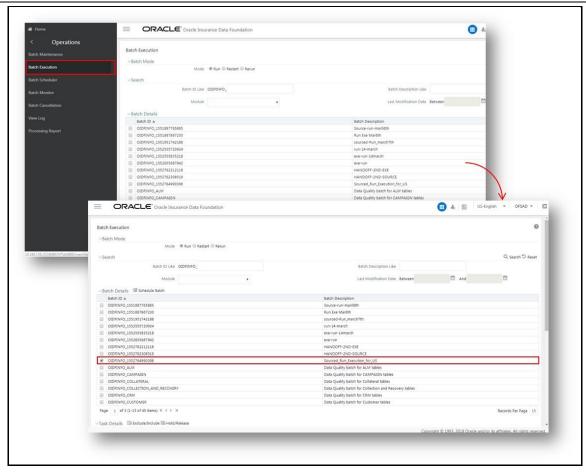
#### 6.2.6.4.2 **Execute the Batch for T2T in Batch Execution**

To execute the batch for T2T in the *Batch Execution* page.

- 1. Navigate to the *Batch Execution* page and select the required Batch ID:
  - <INFODOM> EXE RUN for the Result table that consists of Run SKey.
  - <INFODOM> SOURCED RUN for the Result table that does not consist of Run SKey.

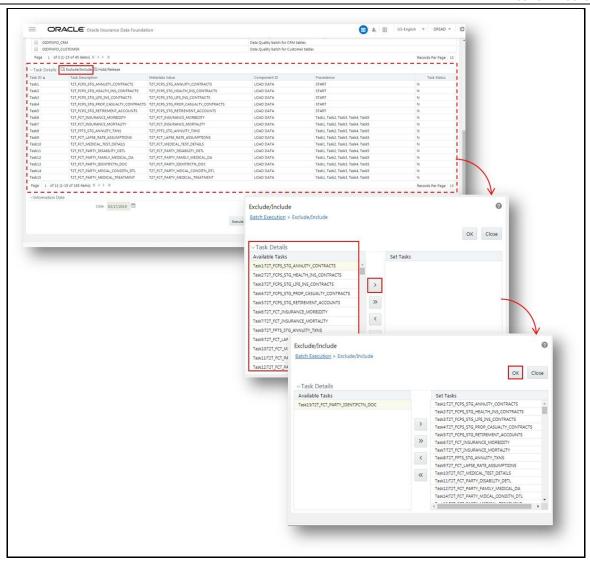
NOTE

For a detailed procedure, see Execute the SCD batch.



2. Exclude/Include tasks from/into the T2T batch.

A summary of the steps is shown in the following screenshots. For a detailed procedure, see Exclude/Include tasks from/into the SCD batch.



3. Select the FIC\_MIS date. To execute the T2T batch, click Execute Batch.

## NOTE

For detailed steps, see:

- Select the FIC\_MIS date
- Execute the SCD batch
- 3. Confirm the SCD batch execution

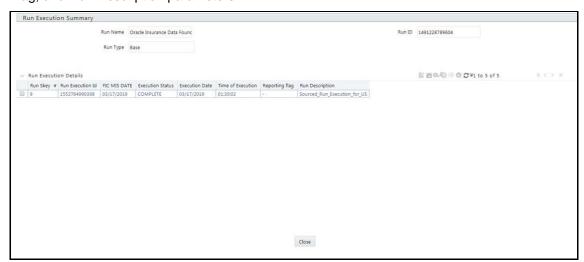


# 6.2.6.5 Check the Batch Execution Status of T2T

# 6.2.6.5.1 Check the Batch Execution Details for T2T in Run Execution Summary

To check the batch execution details for T2T that was executed in the Run Management Summary page:

- 1. Navigate to the Run Management Summary page.
- 2. Click the Run Execution Summary icon.
- 3. The Run Execution Summary pop-up window appears. This section lists data related to Run SKey, Run Execution ID, FIC\_MIS\_DATE, Execution Status, Execution Date, Time of Execution, Reporting Flag, and Run Description parameters.



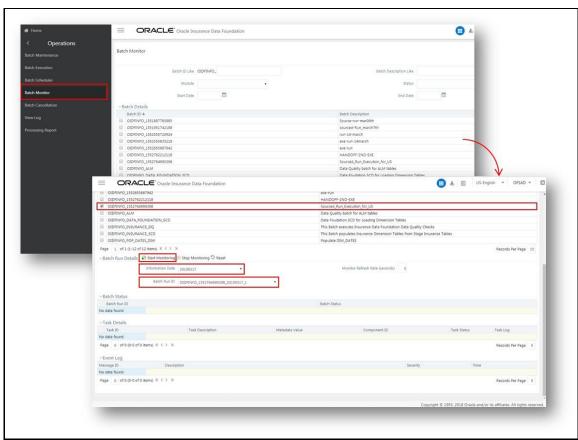
## 6.2.6.5.2 Check the Batch Execution Details for T2T in Batch Monitor

To check the batch execution details for T2T that was executed in the Batch Execution page:

1. Navigate to the *Batch Monitor* page and select the required Batch ID:

- <!NFODOM> EXE RUN for Result table that consists of Run SKey.
- <INFODOM>\_SOURCED\_RUN for Result table that does not consist of Run SKey.
- 2. Select the required Information Date, Batch Run ID, and click the Start Monitoring icon.

A summary of the steps is shown in the following screenshots. For a detailed procedure, see Check the execution status of the SCD batch.

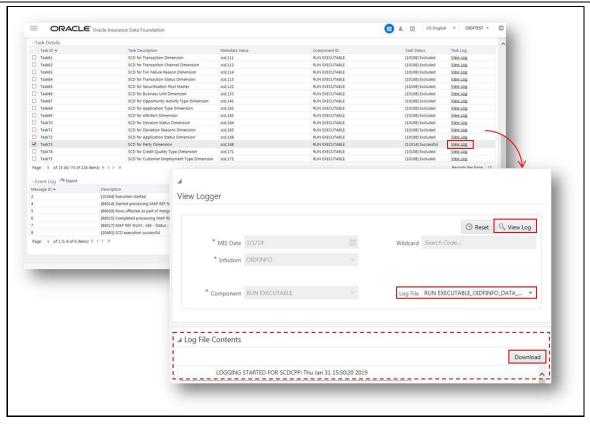


#### 6.2.6.6 **Verify T2T Log Files and Check Error Messages**

A summary of the steps is shown in the following screenshots.

Two types of log files are generated:

- T2T.log
- T2TCPP.log



- To access the execution log file on the application server:
  - Go to the directory ftpshare/logs/<Run Date>/<infodom>/LOAD DATA.
- To check the error messages:

See the log file present in the ftpshare/logs/<Run Date>/<infodom>/LOAD DATA folder for T2T.

#### 6.2.6.7 **Post T2T Process**

When the T2T process is complete, data is populated in the Result tables.

## **NOTE**

AAI\_DMT\_MAPPING\_DETAILS table contains all the Stage, Dimension, and Fact tables. This table contains details about what source table.column level mapping must be done to the result table.column.

AAI\_DMT\_DEF\_SOURCE\_ENTITY table contains all the Expressions.

AAI\_DMT\_DEFINITION table contains all the Join conditions.

Each Join query must contain SKey. The join between a Dimension table and Fact table is based on the SKey.

### Loading Multiple Load Runs in OFSAA 7

This chapter provides information about Loading Multiple Load Runs in OFSAA in the Oracle Insurance 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

#### 7.1 **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.

### 7.2 **Objective**

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).

Users must adjust and reload data (either full or partial) for the current date.

Users must adjust and reload data (either full or partial) for any of past dates.

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

OIDF 8.0.8 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.

To leverage this design in 8.0.8 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

Ensure there is no blank line in the file.

### **Design Details** 7.3

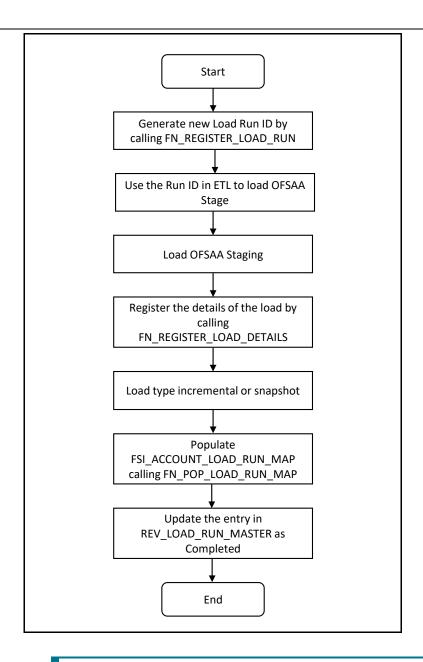
Loading of data into OFSAA can be in any of the following ways:

- **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.

### 7.4 **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 | OFSOIDFINFO_20150101_1 |

| Parameters       | Source of Values    | Example Values   |
|------------------|---------------------|--|
| 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<br>Adjustments |

## Example:

```
Declare
```

Result number;

Begin

```
Result: = fn_register_load_run
('OFSOIDFINFO 20150101 1','20150101','OIDF 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_<br>RUN_ID | MIS_<br>DATE  | LOAD_<br>TYPE | LOAD_<br>PURPOSE | START_DT_<br>TIME | LOAD_RUN_<br>NAME | BATCH_ID                       | LOAD_<br>RUN_<br>STATUS |
|-----------------|---------------|---------------|------------------|-------------------|-------------------|--------------------------------|-------------------------|
| 1               | 01-JAN-<br>15 | А             | ВА               | 01-JAN-15         | OIDF_Load         | OFSOIDFI<br>NFO_20150<br>101_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.

# 7.5 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

# 7.5.1 Complete Snapshot Load Example

For example, if there are three Loan Contract accounts in an Insurance Company 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 appears as follows.

| 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 must run FN\_REGISTER\_LOAD\_DETAILS function mentioned in Post Stage Load Process and Updating Load as Completed which is explained in the following sections.

To enable downstream applications to consume only the latest set of record, you must call another function named FN\_POP\_LOAD\_RUN\_MAP. This is mandatory for incremental snapshot load scenario. This function populates an 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 | OFSOIDFINFO_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                             | OIDF_Load              |

### Example:

Declare

Result number;

Begin

```
Result: =
fn_pop_load_run_map('OFSOIDFINFO_20150101_1','20150101','STG_CASA',1,'OIDF
_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_<br>NUMBER | V_GAAP_ CODE | N_LOAD_RUN_<br>ID | F_LATEST_LOAD_RUN_<br>FLAG |
|---------------|----------------------|--------------|-------------------|----------------------------|
| 1-Jan-15      | LOAN1000             | USGAAP       | 1                 | Υ                          |
| 1-Jan-15      | LOAN1001             | USGAAP       | 1                 | N                          |
| 1-Jan-15      | LOAN1002             | USGAAP       | 1                 | N                          |
| 1-Jan-15      | LOAN1001             | USGAAP       | 2                 | Υ                          |
| 1-Jan-15      | LOAN1002             | USGAAP       | 2                 | Υ                          |
| 1-Jan-15      | LOAN1000             | USGAAP       | 2                 | Υ                          |

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 involves 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 appears as follows.

| FIC_MIS_ DATE | V_ACCOUNT_<br>NUMBER | V_GAAP_ CODE | N_LOAD_RUN_<br>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   |

|  | <b>REV LOAD</b> | RUN MASTE | Rafter second function | call appears as follows. |
|--|-----------------|-----------|------------------------|--------------------------|
|--|-----------------|-----------|------------------------|--------------------------|

| LOAD_<br>RUN_ID | MIS_<br>DATE | LOAD_<br>TYPE | LOAD_<br>PURPOSE | START_DT_<br>TIME     | LOAD_RUN_<br>NAME   | BATCH_<br>ID                   | LOAD_RUN_<br>STATUS |
|-----------------|--------------|---------------|------------------|-----------------------|---------------------|--------------------------------|---------------------|
| 1               | 01-JAN-15    | В             | ВА               | 01-JAN-15<br>13:00 PM | OIDF_Load           | OFSOIDF<br>INFO_20<br>150101_1 | Complete            |
| 2               | 01-JAN-15    | В             | ВА               | 01-JAN-15<br>23:00 PM | Loan<br>Corrections | OFSOIDF<br>INFO_20<br>150101_2 | In Progress         |

# 7.5.2 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 appears as follows.

NOTE

Only the changed source records are stamped with the new load run identifier.

| FIC_MIS_DA TE | V_ACCOUNT_NUMBE R | V_GAAP_COD E | N_LOAD_RUN_I D | 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 | OFSOIDFINFO_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                             | OIDF_Load              |

# Example:

```
Declare
Result number;
Begin
Result: =
fn_pop_load_run_map('OFSOIDFINFO_20150101_1','20150101','STG_CASA',1,'OIDF
_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 appears as follows.

| FIC_MIS_ DATE | V_ACCOUNT_<br>NUMBER | V_GAAP_ CODE | N_LOAD_RUN_<br>ID | F_LATEST_LOAD_RUN_<br>FLAG |
|---------------|----------------------|--------------|-------------------|----------------------------|
| 1-Jan-15      | LOAN1000             | USGAAP       | 1                 | Υ                          |
| 1-Jan-15      | LOAN1001             | USGAAP       | 1                 | N                          |
| 1-Jan-15      | LOAN1002             | USGAAP       | 1                 | N                          |
| 1-Jan-15      | LOAN1001             | USGAAP       | 2                 | Υ                          |
| 1-Jan-15      | LOAN1002             | USGAAP       | 2                 | Υ                          |

# 7.5.3 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.

LOADING OFSAA STAGING TABLES

### 7.5.3.1 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.

### 7.5.3.2 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 | OFSOIDFINFO_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                             | OIDF_Load                             |
| Load Type        | Input from Customer                             | S - Full Snap Shot<br>I - Incremental |

### Example:

```
Declare
Result number; Begin
Result: =
fn_register_load_details('OFSOIDFINFO_20150101_1','20150101',
'STG_CASA',1,'OIDF_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 | 1         |

# 7.5.4 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 = 'OIDF LOAD' and LOAD RUN ID = 1;
```

# 7.6 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.

# 7.6.1 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: FCPS T2T for Stage Loan Contracts

- Modify Filter Condition inside T2T:
  - Filter Condition to be used in T2T: The highlighted condition required to be added in T2T

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

- Modify the Corresponding Batch Task Each Time with Load Run Idxxx
  - a. Select Batch, Task (T2T\_FCPS\_STG\_ANNUITY\_CONTRACTS)
  - 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 following example, 1 is used.)
  - d. [DRCY]=USD,[LOADRUN]=1
  - Execute the batch after this change; it will load the Result table with the given Load Run Id Records.
  - f. Modify the Corresponding Process Task of a Run Each Time with Load Run Id
  - g. Select Process, Click Edit.
  - **h.** Choose Components, select the Object (T2T\_FCPS\_STG\_ANNUITY\_CONTRACTS) and click Components.
  - i. Click the Yellow Drop button near the T2T.
  - Add the Highlighted Condition with the text, and Save: "DRCY","USD","LOADRUN","1".
  - k. Fire the Run after this change. It loads the Result table with the given Load Run ID Records.

### 7.6.2 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, FCPS T2T for Stage Annuity Contracts:

Modify Join Condition inside T2T:

Join Condition to be added in all relevant T2T

For example, STG\_ANNUITY\_CONTRACTS 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.

#### **Time Dimension Transformation** 8

This chapter provides information about populating Time Dimension Transformation in the 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 Transformation
- **Prerequisites**
- Tables Used by the Time Dimension Population Transformation
- Populating the Time Dimension Transformation
- Checking the Batch Execution Status and Verifying the Log Files

#### 8.1 Overview of Time Dimension Transformation

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.

#### 8.2 **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 Oracle Insurance Data Foundation Installation Guide 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.

#### 8.3 **Tables Used by the Time Dimension Transformation**

For more details on viewing the structure of earlier tables, refer to Oracle Financial Services Analytical Applications Data Model Data Dictionary or the OIDF Erwin Data Model.

#### **Populating the Time Dimension Transformation** 8.4

You can execute the function from the Operations (formerly Information Command Center (ICC) framework) module of OFSAAI.

This component for OIDF 8.0.8.0.0 has been seeded with the Batch ID <INFODOM> 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 OIDF 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.

# 8.5 Checking the Batch Execution Status and Verifying Log Files

To check the SCD batch execution status of Time Dimension Transformation, follow the procedure <a href="Check">Check</a> the Execution Status of the SCD Batch.

To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>

ABOUT THE SCD COMPONENT

# 9 About Dimension Loading Process

This chapter provides information about Dimension Loading Process in the Data Foundation application. This chapter includes the following topics:

- About the SCD Component
  - Type 1 SCDs Overwriting
  - Type 2 SCDs Creating another Dimension Record
  - Type 3 SCDs Creating a Current Value Field
- Populating Data in Dimension Table
  - Prerequisites
  - Tables Used by the SCD Component
  - Loading Dimension Tables
  - Seeded Data
  - Loading Policy Tables through Insurance SCD
  - Loading Dimension Tables through SCD
  - Loading Key Dimensions using AMHM and Hierarchy Flattening
  - Loading Data from STG\_INTF Tables to DIM\_INTF Tables
  - Executing the Loading Procedure using Batch Framework
  - Executing The Hierarchy Flattening Procedure using Batch Framework
  - Checking the SCD Batch Execution Status
- Supplementary Information for Dimension Loading Process
  - Improving SCD Performance
  - Handling Multiple GAAP Codes for the Same Account Number for the Same MIS Date in SCD
  - Handling Multiple GAAP Codes for the Same Account Number for the Same MIS Date in the Function

# 9.1 About the SCD Component

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 contain data that changes slowly, rather than changing on a time-based, regular schedule. SCD is considered and implemented as one of the most critical ETL (Extract Transform Load) task 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. They are:

- Type 1 SCDs Overwriting
- Type 2 SCDs Creating another Dimension Record
- Type 3 SCDs Creating a Current Value Field

#### 9.1.1 **Type 1 SCDs - Overwriting**

The Type 1 SCD overwrites old data with new data, and therefore does not track historical data. This is useful for making changes to dimension data. This is the default type of dimension that is created. You do not need to specify any additional information to create a Type 1 SCD.

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.

| N_PRODUCT_<br>SK EY | V_PRODUCT_<br>NAME | D_START_DATE |            | F_LATEST_RECORD_<br>INDICATOR |
|---------------------|--------------------|--------------|------------|-------------------------------|
| 1                   | PL                 | 5/31/2010    | 12/31/9999 | Υ                             |

D\_END\_DATE indicates the date until which this product record is valid.

F\_LATEST\_RECORD\_INDICATOR with value 'Y', which indicates that 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, when SCD is executed for the new processing period, the record in the above example changes to:

| N_PRODUCT_<br>SK EY | V_PRODUCT_<br>NAME | D_START_DATE | D_END_DAT E | F_LATEST_RECORD_<br>INDICATOR |
|---------------------|--------------------|--------------|-------------|-------------------------------|
| 1                   | Personal Loan      | 6/30/2010    | 12/31/9999  | Υ                             |

#### Type 2 SCDs - Creating another Dimension Record 9.1.2

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.

Therefore, a Type 2 SCD retains the full history of values. When the value of a chosen attribute changes, the current record is closed. A new record is created with the changed data values and this new record becomes the current record. Each record contains the effective time and expiration time to identify the time period between which the record was active.

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:

| N_PRODUCT_<br>SK EY | V_PRODUCT_<br>NAME | D_START_DATE | D_END_DAT E | F_LATEST_RECORD_<br>INDICATOR |
|---------------------|--------------------|--------------|-------------|-------------------------------|
| 1                   | PL                 | 5/31/2010    | 12/31/9999  | N                             |
| 2                   | Personal Loan      | 6/30/2010    | 12/31/9999  | Υ                             |

A new record is inserted into 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 is set to 'N'.

# 9.1.3 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 <a href="http://www.oracle.com/technetwork/middleware/data-integrator/overview/odi-bestpractices-datawarehouse-whi-129686.pdf">http://www.oracle.com/technetwork/middleware/data-integrator/overview/odi-bestpractices-datawarehouse-whi-129686.pdf</a>
- Oracle® Warehouse Builder Data Modeling, ETL, and Data Quality Guide at <a href="http://docs.oracle.com/cd/E11882">http://docs.oracle.com/cd/E11882</a> 01/owb.112/e10935.pdf <a href="http://docs.oracle.com/cd/E14072\_01/owb.112/e10935.pdf">http://docs.oracle.com/cd/E14072\_01/owb.112/e10935.pdf</a>

### Additional online sources include:

- http://en.wikipedia.org/wiki/Slowly\_changing\_dimension
- <a href="http://www.oracle.com/webfolder/technetwork/tutorials/obe/db/10g/r2/owb/owb10gr2\_gs/owb/lesson3/slowlychangingdime.nsions.htm">http://www.oracle.com/webfolder/technetwork/tutorials/obe/db/10g/r2/owb/owb10gr2\_gs/owb/lesson3/slowlychangingdime.nsions.htm</a>
- 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 <u>Oracle Insurance Data Foundation - SCD Metadata</u> spreadsheet under Technical Metadata for OIDF 8.0.8.0.0.

# 9.2 Populating Data in Dimension Table

Data Foundation solutions use the SCD component to handle dimensional data changes. For more details about the SCD component, see the chapter <u>Slowly Changing Dimension (SCD)</u>. For SCD procedure, see <u>Execute SCD Batch</u>.

# 9.2.1 Prerequisites

The SCD executable should be present under <installation home>/ficdb/bin directory. The file name is scd.

The user executing the SCD component should have execute rights on the file mentioned as prerequisite in <a href="Executing the SCD Component">Executing the SCD Component</a>.

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 can 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.

#### 9.2.2 **Tables Used by the SCD Component**

The database tables used by the SCD component are:

- SYS\_TBL\_MASTER
- SYS STG JOIN MASTER
- DIM\_<dimensionname>\_V

#### 9.2.2.1 About SYS\_TBL\_MASTER Table

The solution installer populates one row per dimension for the seeded dimensions in the SYS\_TBL\_MASTER table.

| Column Name  | Data Type                  | Column Description   |
|--------------|----------------------------|--|
| MAP_REF_NUM  | NUMBER(3)<br>NOT NULL      | The Mapping Reference Number for this unique mapping of a Source to a Dimension Table.         |
| TBL_NM       | VARCHAR2(30)<br>NOT NULL   | Dimension Table Name.  |
| STG_TBL_NM   | VARCHAR2(30)<br>NOT NULL   | Staging Table Name.  |
| SRC_PRTY     | SRC_PRTY NUMBER(2)<br>NULL | Priority of the Source when multiple sources are mapped to the same target.                    |
| SRC_PROC_SEQ | NUMBER(2)<br>NOT NULL      | The sequence in which the various sources for the DIMENSION is taken up for processing.        |
| SRC_TYP      | VARCHAR2(30)<br>NULL       | The type of the Source for a Dimension, that is, Transaction Or Master Source.                 |
| DT_OFFSET    | NUMBER(2)<br>NULL          | The offset for calculating the Start Date based on the Functional Requirements Document (FRD). |
| SRC_KEY      | NUMBER(3)<br>NULL          |  |

### Sample data:

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

| Field Name  | Value          |
|-------------|----------------|
| MAP_REF_NUM | 6              |
| TBL_NM      | DIM_LOB        |
| STG_TBL_NM  | STG_LOB_MASTER |

| Field Name   | Value  |
|--------------|--------|
| 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.

#### 9.2.2.2 About SYS\_STG\_JOIN\_MASTER Table

The solution installer will populate the SYS\_STG\_JOIN\_MASTER table for the seeded dimensions.

| Column Name           | Data Type                | Column Description  |
|-----------------------|--------------------------|---|
| MAP_REF_NUM           | NUMBER(3)<br>NOT NULL    | The Mapping Reference Number for this unique mapping of a Source to a Dimension Table.                      |
| COL_NM                | VARCHAR2(30)<br>NOT NULL | Name of the column in the Dimension Table.  |
| COL_TYP               | VARCHAR2(30)<br>NOT NULL | Type of column. The possible values are given in the following paragraph.                                   |
| STG_COL_NM            | VARCHAR2(60)<br>NULL     | Name of the column in the Staging Table.  |
| SCD_TYP_ID            | NUMBER(3)<br>NULL        | SCD type for the column.  |
| PRTY_LOOKUP_ REQD_FLG | CHAR(1)<br>NULL          | Column to determine whether Lookup is required for Priority of Source against the Source Key Column or not. |
| COL_DATATYPE          | VARCHAR2(15)<br>NULL     | The list of possible values are VARCHAR, DATE, NUMBER based on the underlying column datatype.              |
| COL_FORMAT            | VARCHAR2(15)<br>NULL     | Column format.  |

The possible values for column type (the COL\_TYPE column) in SYS\_STG\_JOIN\_MASTER are:

| Column Type | Description  |
|-------------|--|
| PK          | Primary Dimension Value (can be multiple for a given "Mapping Reference Number") |

| Column Type | Description  |
|-------------|--|
| SK          | Surrogate Key  |
| DA          | Dimensional Attribute (can 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 9.SS Source Key   |
| LUD         | Last Updated Date / Time   |
| LUB         | Last Updated By  |

### Sample Data:

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

| Item                 | Description |
|----------------------|-------------|
| 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.

#### 9.2.2.3 About 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 must be added for every user-defined dimension.

### Example:

## 9.2.3 Loading Dimension Tables

Load data into the Dimension tables using one of the following suitable processes.

### 9.2.3.1 Seeded Data

This is an automatic process wherein the Seeded data for Dimensions, which are packaged within the installer, are populated during the installation.

**NOTE** 

To access the Seeded data for Dimensions, see the latest version of <u>OIDF Run</u> Chart.

### 9.2.3.2 Loading Policy Tables through Insurance SCD

To execute Policy Dimension SCD batch <INFODOM>\_INSURANCE\_SCD, see <u>Execute the SCD Batch of</u> the DIM\_POLICY table.

# 9.2.3.3 Loading Dimension Tables through Data Foundation SCD

To execute an SCD batch <INFODOM>\_DATA\_FOUNDATION\_SCD for any other Dimension table, see Execute <INFODOM>\_DATA\_FOUNDATION\_SCD batch for the required Dimension table.

**NOTE** 

For a more comprehensive coverage of configuration and execution of a batch, see <u>Oracle Financial Services Analytical Applications Infrastructure</u> User Guide.

# 9.2.3.4 Loading Key Dimensions using AMHM and Hierarchy Flattening

The Dimension Loader functionality in the Data Foundation application, enables you to load Dimension tables such as DIM\_ORG\_UNIT, DIM\_GL\_ACCOUNT, DIM\_COMMON\_COA, DIM\_PRODUCT, and DIM\_ORG\_STRUCTURE.

For more information, see Dimension Management chapter in <u>Oracle Financial Services Analytical Applications Infrastructure 7.3 User Guide</u> and Dimension Load Procedure section in <u>Oracle Financial Services Analytical Applications Data Model Utilities 7.1 / 7.2 User Guide</u>

## 9.2.3.5 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:

| Item                                   | Description  |
|--|--|
| STG _ <dimension>_B_INTF</dimension>   | Stores leaf and node member codes within the dimension.  |
| STG_ <dimension>_TL_INTF</dimension>   | Stores names of leaf and node and their translations.  |
| STG_ <dimension>_ATTR_INTF</dimension> | Stores attribute values for the attributes of the dimension.   |
| STG_ <dimension>_HIER_INTF</dimension> | 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</dimension>        | Stores leaf and node member codes within the dimension.  |
| DIM_ <dimension>_TL</dimension>        | Stores names of leaf and node and their translations.  |
| DIM_ <dimension>_ATTR</dimension>      | Stores attribute values for the attributes of the dimension.   |
| DIM_ <dimension>_HIER</dimension>      | 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, see 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:

| 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_STRUCTURE | STG_LEGAL_ENTITY_**_INTF |

#### 9.2.3.6 **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 <infodom>\_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 - Data Loaders, in the Oracle Financial Services Analytical Applications Data Model Utilities Guide.

### 9.2.3.7 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 <infodom>\_DATA\_FOUNDATION\_SCD.

Below are the input parameters:

- pDIMENSIONID: This is the dimension ID.
- pHierarchyld: 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 must be transformed.

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

# 9.2.4 Checking the SCD Batch Execution Status

To check the SCD batch execution status, see Verify log files and check error messages, if any.

# 9.3 Supplementary Information for Dimension Loading Process

Following are the supplementary information required for Dimension loading process.

# 9.3.1 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 above. If these have to be used in OFSAAI versions 7.3.2.2.0 or 7.3.2.3.0, 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)

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 exist.

For improving performance, hints for the MERGE query, which is generated internally by the SCD, can be provided under MERGE\_HINT. The following session alters can be mentioned in the SESSION\_ENABLE\_STATEMENT and SESSION\_DISABLE\_STATEMENT columns.

- 1. SESSION\_ENABLE\_STATEMENTs are executed before the MERGE in the SCD and SESSION DISABLE STATEMENTs are executed after the SCD MERGE.
- 2. 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.
- 3. 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.
- 4. MERGE HINT and SESSION ENABLE STATEMENT are in SYS TBL MASTER.

NOTE For illustration, Account Dimension is considered.

| Table Name  | Stage Table Name     | Merge Hint                             | Session Enable Statement  |
|-------------|----------------------|--|---|
| DIM_ACCOUNT | STG_LOAN_CONTRACTS_V | /*+<br>parallel(DIM_ACCOUNT,1 0)<br>*/ | "alter session enable<br>parallel dml query", "alter<br>table DIM_ACCOUNT<br>nologging parallel 10" |

- 5. Execute all the tasks in parallel. This may cause N RCV LEG ACCT SKEY to have an incremental value as compared to N ACCT SKEY.
- Execute the SQL file with all the SESSION DISABLE STATEMENTs, after the successful completion of the SCD batch.
- 7. After the DIM ACCOUNT table is populated using this approach, you cannot use the initial approach (FN\_POPDIMACCOUNT) as this will lead to Skey conflict.
- 8. Ensure that you have set the value of the sequence SEQ\_DIM\_ACCOUNT\_SCD as max (value of SKey in DIM ACCOUNT) +1, before moving from old to new approach.
- 9. The F LATEST RECORD INDICATOR for an existing DIM ACCOUNT data already loaded by the function must be updated to 'Y' before running the SCD, failing which a new SKey may get generated for the same account number.
- 10. SCD execution occurs based on the GAAP code, which is configured in SETUP MASTER table. These are introduced to tackle the scenario of multiple GAAP codes. Whether or not there exist multiple GAAP codes, SETUP MASTER must be manually configured as follows:

| V_COMPONENT_CODE | V_COMPONENT_DESC | V_COMPONENT_VALUE |
|------------------|------------------|-------------------|
| DEFAULT_GAAP     | DEFAULT_GAAP     | USGAAP            |

Where V COMPONENT VALUE must be manually populated with the required GAAP code. For all other GAAP codes, ensure to update SETUP\_MASTER manually before running DIM\_ACCOUNT SCD.

# 9.3.2 Handling Multiple GAAP Codes for the Same Account Number for the Same MIS Date in SCD

NOTE

For illustration, Account Dimension is considered.

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 must 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'.

# 9.3.3 Handling Multiple GAAP Codes for the Same Account Number for the Same MIS Date in the Function

NOTE

For illustration, Account Dimension is considered.

For FN\_POPDIMACCOUNT function, you have to create views and use these views instead of the tables in the FSI\_DIM\_ACCOUNT\_SETUP\_DETAILS table. For Product Processors having GAAP code as part of the Primary Key, create a view on the table with filter on the GAAP code as:

where V\_GAAP\_CODE = (SELECT V\_COMPONENT\_VALUE FROM SETUP\_MASTER WHERE V\_COMPONENT\_DESC = 'DEFAULT\_GAAP')

Use this view under TABLE\_NAME in FSI\_DIM\_ACCOUNT\_SETUP\_DETAILS table. If there are different GAAP codes for two distinct account numbers for the same MIS date, then the function 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'.

### NOTE

If STG\_OPTION\_CONTRACTS is loaded for two MIS dates, and FN\_POPDIMACCOUNT is executed, then all records irrespective of the MIS date will get loaded. To resolve this, remove the expression under SQL\_TEXT in FSI\_DIM\_ACCOUNT\_SETUP\_DETAILS for STG\_OPTION\_CONTRACTS and use the same expression to create a view and use this view as the TABLE\_NAME in FSI\_DIM\_ACCOUNT\_SETUP\_DETAILS..

ABOUT ACCOUNT DIMENSION TABLE

#### **Account Dimension Table** 10

This chapter provides information about Account Dimension loading process in the Data Foundation application.

This chapter includes the following topics:

- **About Account Dimension Table**
- About SCD Process for Populating Account Dimension Table
- About <INFODOM>\_DIM\_ACCOUNT\_SCD Batch
- **Deploying Account Dimension Table on Hive**
- Populating Account Dimension Table

The account is where an insurer deposits premiums from policies it underwrites and from which that Insurance Company funds day-to-day operations of the business.

#### **About Account Dimension Table** 10.1

The mapping details for the Account Dimension (DIM\_ACCOUNT) tables are given here.

| Map<br>Reference<br>Number | Source View Name              | Logical Source View Name              |
|----------------------------|-------------------------------|---------------------------------------|
| 190                        | STG_BORROWING_V               | Stage Borrowing View                  |
| 350                        | STG_CUSTODIAL_ACCOUNTS_V      | Stage Custodial Accounts View         |
| 465                        | STG_FORWARDS_V                | Stage Forwards View                   |
| 195                        | STG_FUTURES_V                 | Stage Futures View                    |
| 197                        | STG_GUARANTEES_V              | Stage Guarantees View                 |
| 198                        | STG_INVESTMENTS_V             | Stage Investments View                |
| 201                        | STG_LOAN_CONTRACTS_V          | Stage Loan Contracts View             |
| 351                        | STG_MANAGED_INV_ADV_V         | Stage Managed Investment Account View |
| 202                        | STG_MM_CONTRACTS_V            | Stage Money Market Contracts View     |
| 203                        | STG_MUTUAL_FUNDS_V            | Stage Mutual Funds View               |
| 205                        | STG_OPTION_CONTRACTS_V        | Stage Option Contracts View           |
| 341                        | STG_PAYMENT_SETTLEMENT_ACCT_V | Stage Payment Settlement Account View |
| 206                        | STG_REPO_CONTRACTS_V          | Stage Repurchase Contracts View       |
| 354                        | STG_SPEND_OBLIGATIONS_V       | Stage Spend Obligations View          |
| 208                        | STG_SWAPS_CONTRACTS_V         | Stage Swaps Contracts View            |
| 210                        | STG_TRUSTS_V                  | Stage Trusts View                     |

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 tables. The same account number cannot be part of multiple Product Processor tables.

#### **About SCD Process for Populating Account Dimension Table** 10.2

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 are loaded during SCD population:

- V ACCOUNT NUMBER
- N ACCT SKEY
- N\_RCV\_LEG\_ACCT\_SKEY
- FIC\_MIS\_DATE

This approach replaces the function load in which the table DIM ACCOUNT is getting loaded through the function, FN POPDIMACCOUNT. This loads the above mentioned columns into DIM ACCOUNT table. Here, the sources are the different product processor tables present in the solution, which are configured in FSI DIM ACCOUNT SETUP DETAILS table.

#### About <INFODOM> DIM ACCOUNT SCD Batch 10.2.1

Batch <INFODOM> DIM ACCOUNT SCD is introduced with multiple tasks under it.

These tasks represent their corresponding SCD processes where different product processors are the source and DIM\_ACCOUNT is the target. The MAP\_REF\_NUMs mentioned in the following table are 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.

#### **Deploying Account Dimension Table on Hive** 10.3

All RDBMS related Account Dimension table can also be deployed on Hive (Stage and Results on Hive).

#### **Populating Account Dimension Table** 10.4

To populate data into Account Dimension table through SCD process, see Execute the SCD Batch of the DIM ACCOUNT table.

NOTE

You can also follow this SCD process to populate data into any Hive related Account Dimension table.

For supplementary information about populating data in Dimension table, see the section Supplementary Information for Dimension Loading Process in the chapter About Dimension Loading Process.

### **Policy Dimension Table** 11

This chapter provides information about Policy Dimension and its loading process in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- **About Policy Dimension Table**
- About SCD Process for Populating Policy Dimension Table
- About <INFODOM>\_INSURANCE\_SCD Batch
- **Deploying Policy Table on Hive**
- Populating Policy Dimension Table

Policy is the legal document issued by an Insurance Company (Insurer) to a policyholder (Insured) which states the terms and conditions of the insurance coverage.

The policy dimension table stores list of all policies issued by the insurer.

#### 11.1 **About Policy Dimension Table**

The mapping details for the Policy Dimension (DIM\_POLICY) tables are given here.

| Map Reference<br>Number | Source Table Name              | Logical Stage Table Name               |
|-------------------------|--------------------------------|--|
| 224                     | STG_PROP_CASUALTY_CONTRACTS_V  | Stage Property Casualty Contracts View |
| 401                     | STG_LIFE_INS_CONTRACTS_V       | Stage Life Insurance Contracts View    |
| 402                     | STG_HEALTH_INS_CONTRACTS_V     | Stage Health Insurance Contracts View  |
| 403                     | STG_ANNUITY_CONTRACTS_V        | Stage Annuity Contracts View           |
| 634                     | STG_RETIREMENT_ACCOUNTS_V      | Stage Retirement Accounts View         |
| 674                     | STG_REINSURANCE_CNTRCTS_ISSUED | Stage Reinsurance Contracts Issued     |
| 675                     | STG_REINSURANCE_CONTRACTS_HELD | Stage Reinsurance Contracts Held       |

### **About SCD Process for Populating Policy Dimension Table** 11.2

The SCD process for DIM\_POLICY table generates individual numeric Surrogate Keys for every policy code. These columns are loaded during SCD process:

- V POLICY CODE
- N POLICY SKEY
- FIC\_MIS\_DATE
- V\_PRODUCT\_PROCESSOR\_NAME
- V\_PROD\_CODE
- V\_ENTITY\_CODE

This approach replaces the function load in which the table DIM POLICY is getting loaded through the function, FN POPDIMPOLICY. This loads the above mentioned columns into DIM POLICY table. Here, the sources are the different product processor tables present in the solution, which are configured in FSI DIM POLICY SETUP DETAILS table.

#### 11.2.1 About <INFODOM> INSURANCE SCD Batch

Batch <INFODOM>\_INSURANCE\_SCD has been introduced with 30 tasks under it.

These tasks represent the corresponding SCD processes where different product processors are the source and DIM POLICY is the target. MAP REF NUMs 224, 401, 402, and 403 are 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.

#### 11.3 **Deploying Policy Dimension Table on Hive**

All RDBMS related Policy Dimension table can also be deployed on Hive (Stage and Results on Hive).

#### **Populating Policy Dimension Table** 11.4

To populate data into Policy Dimension table through the SCD process, see Execute the SCD Batch of the **DIM POLICY table.** 

NOTE

You can also follow this SCD process to populate data into any Hive related Policy Dimension table.

For supplementary information about populating data in Dimension table, see the section Supplementary Information for Dimension Loading Process in the chapter About Dimension Loading Process.

### 12 **About Executing Run through Run Management**

#### 12.1 Introduction

Starting from 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 the installer.

- Oracle Insurance 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.
- Oracle Insurance 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.

**NOTE** 

To access the Run Name and Task details, see the latest version of OIDF Run Chart.

#### 12.2 **Summary and Details Page**

After navigating to the Run Management page, a summary window 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 window displays the list of runs defined in the Run Rule Framework (RRF) except those with Immediate Execution Option Yes in the grid.

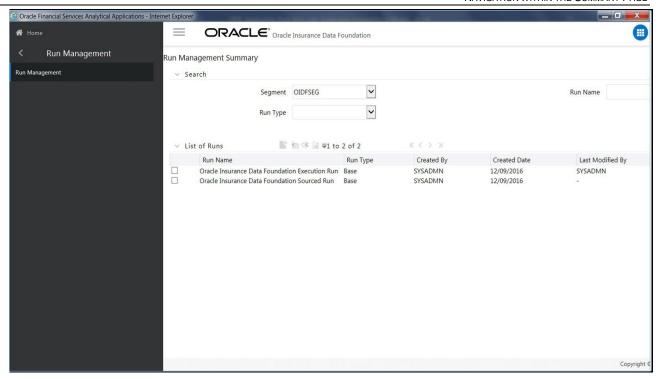
#### 12.3 **Navigation within the Summary Page**

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

- Search
- List of Runs

#### 12.3.1 **Search Section**

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



#### 12.3.2 **List of Runs Section**

The List of Runs section presents a grid containing 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.

| Field Name               | Field Description  |
|--------------------------|--|
| 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 readonly basis. The View icon is only enabled when a single Run is 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.  |

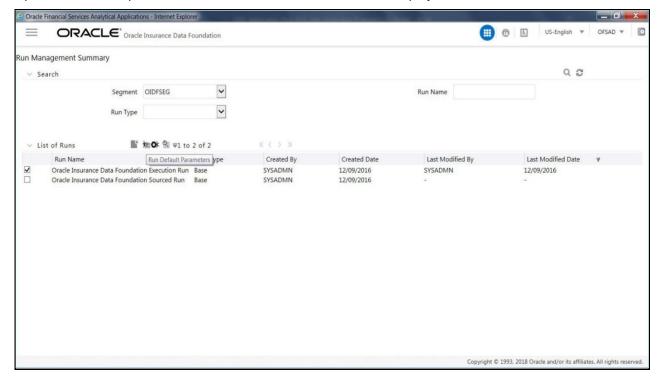
#### 12.3.3 **List of Runs Summary Grid**

The following columns categorize each Run in the summary grid:

| Field Name         | Field Description  |
|--------------------|--|
| 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.                             |

#### 12.3.4 **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.



**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.

#### 12.3.4.1 **Run Details Section**

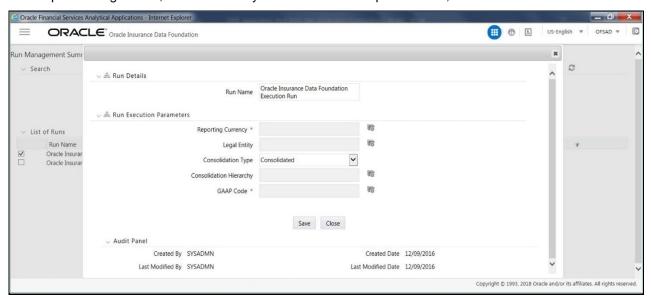
This section displays the name of the Run which is a read-only value.

#### 12.3.4.2 **Run Execution Parameters Section**

In this section you can update the following:

| Field Name              | Field Description  |
|-------------------------|--|
| 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. |
| 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 window:

- Legal Entity Code for Run (HOIDF001)
- Reporting Currency Code for Run (HOIDF002)
- Legal Entity Hierarchy for Run (HOIDF003)
- User Group Hierarchy (H\_GROUP)

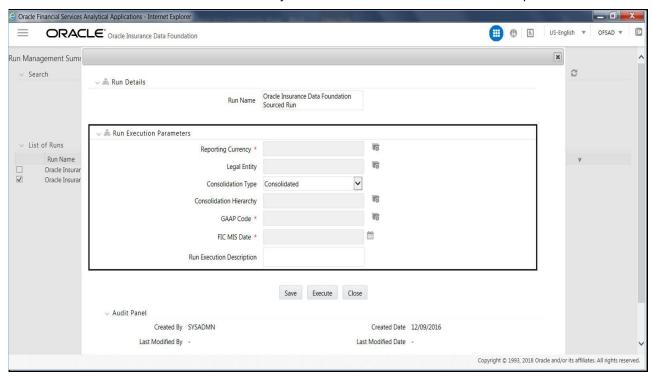
### **NOTE**

For further details on Save Hierarchy, see Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.8.0.0 on OHC.

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.

#### **Navigation within Run Execution Parameters Window** 12.3.5

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.



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

#### 12.3.5.1 **Run Details Section**

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



#### 12.3.5.2 **Run Execution Parameters Section**

The following Run execution parameters can be updated:

| Field Name                | Field Description  |
|---------------------------|--|
| 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.                   |
| 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 window: |
|------|---|
|      | Legal Entity Code for Run (HOIDF001)  |
|      | Reporting Currency Code for Run (HOIDF002)  |

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 window.

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 window.

| NOTE | For further details on Save Hierarchy and Batch Execution, see Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack 8.0.8.0.0 on OHC. To execute a Run, the execute run role |
|------|--|
|      | should be mapped to your user profile. Currently, the users mapped under Admin or Operator User Groups automatically have this role.   |

#### **Navigation within Run Execution Summary Page** 12.3.6

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



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

#### 12.3.6.1 **Run Execution Summary Section**

The Run Execution Summary displays the following details:

| Field Name | Field Description                                 |
|------------|---|
| 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.                    |

#### 12.3.6.2 **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.

| Field/Icon Name     | Usage  |
|---------------------|--|
| Parameter details   | Click this icon to view the Run execution and Run default parameter details in read-only mode.   |
| Сору                | 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. |

| Field/Icon Name      | Usage  |
|----------------------|--|
| 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.  |

#### 12.3.6.3 **Run Execution Grid**

The Run Execution Details displays the following details:

| Field name        | Field Description   |
|-------------------|---|
| 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.                      |

# 13 Legal Entity Consolidation

### 13.1 Introduction

The reporting entity may be a part of an Insurance Company that consists of multiple legal entities such as parent or child entities (subsidiaries) under its name. User can select the entity for which processing must be done. In addition, whether a 'Solo' or 'Consolidation' execution must be done using the Run Execution screen. However, if it is executed using RRF execution then these options must be 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.

**ATTENTION** 

All the following sections are applicable also to Stage and Results on Hive.

# 13.1.1 Run Parameters Assignment

Run Management Framework in the product allows the reporting Insurance Company to define and execute a Run by selecting a combination of parameters capital computation.

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. However, if the execution is through Run Management, the parameters are populated based on the run defined in the run definition screen.

# 13.2 Consolidation Procedures

The Consolidation procedures are as follows:

- Combine 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 investment of the parent in each subsidiary and the
  equity portion of the parent of each subsidiary (IFRS 3 Business Combinations explain how to
  account for any related goodwill).
- Eliminate in full intra group assets and liabilities, equity, income, expenses and cash flows that relates to transactions between entities of the group (profits or losses resulting from intra group transactions that are recognized in assets, such as inventory and fixed assets, are eliminated in full).

In the preceding list, the first and third points are partly handled in the consolidation process, second is accounting idea output, which is provided in General Ledger as a part of Stage General Ledger data inputs

# 13.3 Types of Consolidation

The types of Consolidation are as follows:

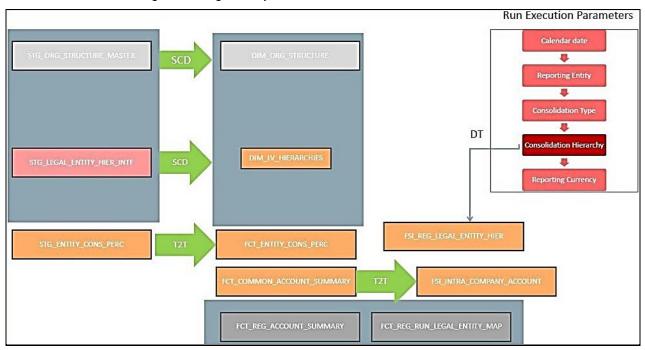
- Simple Aggregation: Aggregate across entities without any elimination.
- Full Consolidation: Aggregate and eliminate intra group transactions.
- Proportionate Consolidation: Aggregate and eliminate intra group transactions and balances reflecting consolidation percentage owned by parent in subsidiary.

**CONSOLIDATION ACTIVITIES** 

#### **Consolidation Activities** 13.4

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

This is the Data Flow diagram of Legal Entity consolidation activities.



### **Legal Entity Tables** 13.5

This section provides information about Insurance Legal Entity population tables in the Oracle Insurance Data Foundation application and step-by step instructions to use this section.

This section includes the following topics:

- **About Legal Entity Dimension Tables**
- About Legal Entity T2T (Result Table)
- Deploying Legal Entity Tables on Hive
- Populating Legal Entity Dimension Tables
- Populating Legal Entity T2T Result Tables

#### 13.5.1 **About Legal Entity Dimension Tables**

For information about the introduction to Legal Entity and the purpose of the Legal Entity tables, see Introduction.

Legal Entity Dimension table names and their description are given here.

| Logical Dimension Table Name      | Dimension Table Description  |
|-----------------------------------|--|
| Legal Proceeding Status Dimension | This table stores the legal proceeding status codes for the customer along with the descriptions for each status code.   |
| Legal Entity Group Dimension      | This table stores the list of all the defined Legal Entity groups in an organization structure.  |
| Legal Reporting Dimension         | This table stores the legal reporting hierarchy in an organization. The lowest level of the hierarchy is the booking transit and the highest level is the whole Insurance Company. |

The mapping details for the Legal Entity Dimension tables are given here.

| Map<br>Reference<br>Number | Source Table Name                      | Logical Stage Table<br>Name                | Dimension Table<br>Name        | Logical Dimension Table Name         |
|----------------------------|--|--|--------------------------------|--------------------------------------|
| 269                        | STG_LEGAL_PROC<br>EDING_STS_MAST<br>ER | Stage Legal<br>Proceeding Status<br>Master | DIM_LEGAL_PROC<br>EDING_STATUS | Legal Proceeding<br>Status Dimension |
| 452                        | STG_LEGAL_ENTIT<br>Y_GROUP_MASTE<br>R  | Stage Legal Entity<br>Group Master         | DIM_LEGAL_ENTIT<br>Y_GROUP     | Legal Entity Group<br>Dimension      |
| 58                         | STG_LEGAL_ENTIT<br>Y_MASTER            | Stage Legal Entity<br>Master               | DIM_LEGAL_REPO<br>RTING        | Legal Reporting<br>Dimension         |

#### **About Legal Entity T2T (Result Table)** 13.5.2

Legal Entity T2T and its description is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table<br>Name | T2T Name        |
|----------------------|-----------------------------|-----------------|----------------------------|-----------------|
| STG_LEGAL_EN         | Stage Legal Entity          | FCT_LEGAL_ENTIT | Fact Legal Entity          | T2T_FCT_LEGAL_E |
| TITY_DETAILS         | Details                     | Y_DETAILS       | Details                    | NTITY_DETAILS   |

### 13.6 **Deploying Legal Entity Tables on Hive**

All RDBMS related Legal Entity Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### 13.7 **Populating Legal Entity Dimension Tables**

Follow this SCD process to populate data into any Legal Entity Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive-related Legal Entity Dimension table.

- 1. To populate data into any Legal Entity Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of a Legal Entity Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

#### 13.8 Populating Legal Entity T2T Result Table

Follow this T2T process to populate data into any Legal Entity T2T Result table:

**NOTE** 

You can also follow this T2T process to populate data into any Hive-related Legal Entity T2T Result table.

- 1. To populate data into any Legal Entity T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Legal Entity Result table, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

### **Exchange Rates Tables** 14

This chapter provides information about Exchange Rates tables in the Data Foundation application and step-by step instructions to use this section.

This chapter includes the following topics:

- Handling Alternate Currency
- About Exchange Rates T2T (Result Table)
- Deploying Exchange Rates Tables on Hive
- Populating Exchange Rates T2T Result Table

The Exchange Rates table stores the list of all exchange rates for all types of currency. This is a standalone table.

The purpose of the Exchange Rate table is to offer the value of one currency in relation to another currency.

### **Handling Alternate Currency:**

Exchange Rates is supplied by the customers in downloadable format. The applications may require the information in a different format. The current Exchange Rates population is 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.

#### **About Exchange Rates T2T (Result Table)** 14.1

Exchange Rates T2T and its description is given here.

| T2T Name               | T2T Description   |
|------------------------|---|
| T2T_FSI_EXCHANGE_RATES | This T2T stores history of the exchange rates between two currencies. |

The mapping details for the Exchange Rates T2T is given here.

NOTE

Ensure to verify and load data into the STG\_EXCHANGE\_RATE\_HIST table using the Table to Table (T2T) component of Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) framework.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table | T2T Name         |
|----------------------|-----------------------------|-----------------|--------------------|------------------|
| VW_FSI_RATE_T        | FSI Rate                    | FSI_EXCHANGE_R  | FSI Exchange Rates | T2T_FSI_EXCHANGE |
| RIANGULATION         | Triangulation View          | ATES            |                    | _RATES           |

# 14.2 Deploying Exchange Rates Tables on Hive

All RDBMS related Exchange Rates Result table can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 14.3 Populating Exchange Rates T2T Result Table

Follow this T2T process to populate data into Exchange Rates T2T Result table:

NOTE

You can also follow this T2T process to populate data into any Hive related Exchange Rates T2T Result table.

FSI\_EXCHANGE\_RATES table must be loaded prior loading any of the Account Summary tables.

- 1. To populate data into Exchange Rates T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Exchange Rates Result tables, follow the procedure Check the Batch Execution Status of T2T.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

# 15 Party Subject Area

This chapter provides information about Party Dimension loading process and populating various Party Attributes Results tables in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- Overview
- Party Dimension
- Party Definition
- Party Contact Details
- Party Identification Document
- Party Medical Attributes
- Party Financial Data/Employment Attributes
- Party Producer Exam, Certification, and License
- Party Results
- Other Party Attributes
- Populating Party related Dimension Tables
- Populating Party related T2T Result Tables

### 15.1 Overview

Party refers to any person or organization that interacts with the Insurance Company while Party Attributes refers to information elements associated with any person or organization that interacts with the Insurance Company.

Correspondingly, Party tables can be classified into Party Dimension tables and Party T2T tables. The Party Dimension tables store the history of a Party, and different types of Party T2Ts store the history of a Party specific to the attributes.

# 15.2 Party Dimension Table

Party Dimension table stores history of a Party. A Party here can be a customer, issuer, guarantor, etc.

### NOTE

Party Dimension table must be populated before populating any other Party related Dimension table.

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 current release, data is sourced from STG\_PARTY\_MASTER to the above Dimension tables.

To address the Bug 20486362 - SCD TO POPULATE DIM\_CUSTOMER FROM STG\_PARTY\_MASTER TO BE ADDED, a new SCD (MAP\_REF\_NUM = 335) was introduced in OIDF 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 dependency 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 is planned to be deprecated in a future release.

# 15.2.1 Using Stage Party Master to Load Party Dimension

The Party Master table contains information related to a person or an organization that is a party to Insurance Company. Party refers to customer, issuer, guarantor, etc. This table holds the master list of parties across all the roles and their details such as name, age, education, profession, gender, etc.

Party ID: Party identifier is a code that identifies whether the Party ID provided for a party is an organization identifier or a private identifier.

The mapping details to load to the Party Dimension table from the Stage Party Master table is given here.

| Map Reference<br>Number | Source Table<br>Name | Logical Stage Table<br>Name | Dimension Table | Logical Dimension Table Name |
|-------------------------|----------------------|-----------------------------|-----------------|------------------------------|
| 117                     | STG_PARTY_MAS<br>TER | Stage Party Master          | DIM_PARTY       | Party Dimension              |

# 15.2.2 Using Stage Party Type Master to Load Party Type Dimension

The Party Type Master table contains information related to type of the Party that may be an Individual, an Insurance Company, a Corporate - Small, a Corporate - Medium, a State Government, and a Sovereign etc.

Party ID: Party identifier is a code that identifies whether the Party ID provided for a party is an organization identifier or a private identifier.

The mapping details to load to the Party Dimension Type table from the Stage Party Type Master table is given here.

| Map Reference | Source Table              | Logical Stage Table        | Dimension Table | Logical Dimension Table Name |
|---------------|---------------------------|----------------------------|-----------------|------------------------------|
| Number        | Name                      | Name                       | Name            |                              |
| 180           | STG_PARTY_TYP<br>E_MASTER | Stage Party Type<br>Master | DIM_PARTY_TYPE  | Party Dimension Type         |

# 15.2.3 Using Stage Party Role Map to Populate Party Role Map T2T (Result Table)

**NOTE** 

Load STG\_PARTY\_ROLE\_MAP with all customer records and Party Role must be 'CUSTOMER'.

The Party Role Map table stores information related to different roles that are played by a Party. Roles here refers to Beneficiary, Producer, Agent, Issuer etc. If same party plays multiple roles, one needs to update party role map entity continuing with same record in stage party master with or without role specific data addition.

The mapping details to populate the Party Role Map T2T is given here.

| Source Table<br>Name   | Logical Stage Table<br>Name | Fact Table Name     | Logical Fact Table Name | T2T Name                   |
|------------------------|-----------------------------|---------------------|-------------------------|----------------------------|
| STG_PARTY_R<br>OLE_MAP | Stage Party Role Map        | FCT_PARTY_ROLE _MAP | Fact Party Role Map     | T2T_FCT_PARTY_RO<br>LE_MAP |

#### 15.3 **Party Definition Tables**

Party Definition consists of the details related to Party such as Annual Income, Primary Source of Wealth, and Probability of Default Percentage, etc.

The purpose of Party Definition tables is to store personal information of a Party to check whether the premium is paid on a regular basis with no default on the payments, and the coverage is as per the income calculation of the Party.

#### 15.3.1 **About Party Definition T2Ts (Result Tables)**

Party Definition T2T consists of the Party and Party Probability of Default details.

Party Definition T2Ts and their description are given here.

| T2T Name                 | T2T Description  |
|--------------------------|--|
| T2T_FCT_PARTY_DETAILS    | This T2T stores information related to Party such as Annual Income, and Primary Source of Wealth, etc. |
| T2T_FCT_PARTY_PD_DETAILS | This T2T stores the probability of default values as of given date for all relevant party.             |

The mapping details for the Party Definition T2Ts are given here.

| Source Table<br>Name     | Logical Stage Table Name                         | Fact Table Name          | Logical Fact<br>Table Name                      | T2T Name                     |
|--------------------------|--|--------------------------|---|------------------------------|
| STG_PARTY_D<br>ETAILS    | Stage Party Details                              | FCT_PARTY_DET<br>AILS    | Fact Party Details                              | T2T_FCT_PARTY_DETAIL<br>S    |
| STG_PARTY_P<br>D_DETAILS | Stage Party<br>Probability of<br>Default Details | FCT_PARTY_PD_<br>DETAILS | Fact Party<br>Probability of<br>Default Details | T2T_FCT_PARTY_PD_DE<br>TAILS |

**NOTE** 

The FSI\_PARTY\_STD\_PARTY\_TYPE\_MAP table has been added for mapping purposes, if the customer so desires. This table stores Party Standard Party Type mapping details.

### **Party Contact Details Tables** 15.4

Party Contact Details consists of details about phone, email, and address.

The purpose of these tables is that the Party contact data can be used in KYC document related tables.

#### 15.4.1 **About Party Contact Details Dimension Tables**

Party Contact Details Dimension table names and their description are given here.

| Logical Dimension Table Name         | Dimension Table Description   |
|--------------------------------------|---|
| Phone Dimension                      | This table stores the master phone details.   |
| Address Dimension                    | This table stores the master address details.   |
| Email Dimension                      | This table stores the master email details.   |
| Contact Dimension                    | This table stores the list of contacts imported by the Insurance Company.                         |
| Email Address Purpose Type Dimension | This table stores the email address purpose, or usage, of this address relative to this customer. |
| Phone Purpose Type Dimension         | This table stores the phone purpose type, or usage, of this phone relative to this account.       |

The mapping details for the Party Contact Details Dimension tables are given here.

| Map Reference<br>Number | Source Table Name                  | Logical Stage Table<br>Name                | Dimension Table             | Logical Dimension Table Name            |
|-------------------------|------------------------------------|--|-----------------------------|---|
| 345                     | STG_PHONE_MASTE<br>R               | Stage Phone Master                         | DIM_PHONE                   | Phone Dimension                         |
| 346                     | STG_ADDRESS_MAS<br>TER             | Stage Address<br>Master                    | DIM_ADDRESS                 | Address Dimension                       |
| 347                     | STG_EMAIL_MASTE<br>R               | Stage Email Master                         | DIM_EMAIL                   | Email Dimension                         |
| 144                     | STG_CONTACT_MAS<br>TER             | Stage Contact Master                       | DIM_CONTACT                 | Contact Dimension                       |
| 667                     | STG_EMAIL_ADRS_P<br>RP_TYPE_MASTER | Stage Email Address<br>Purpose Type Master | DIM_EMAIL_ADRS<br>_PRP_TYPE | Email Address Purpose<br>Type Dimension |
| 668                     | STG_PHONE_PURPO<br>SE_TYPE_MASTER  | Stage Phone Purpose<br>Type Master         | DIM_PHONE_PUR<br>POSE_TYPE  | Phone Purpose Type<br>Dimension         |

#### 15.4.2 **About Party Contact T2Ts (Result Tables)**

Party Contact Details T2Ts and their description are given here.

| T2T Name                  | T2T Description                            |
|---------------------------|--|
| T2T_FCT_PARTY_PHONE_MAP   | This T2T stores the Party phone details.   |
| T2T_FCT_PARTY_ADDRESS_MAP | This T2T stores the Party address details. |
| T2T_FCT_PARTY_EMAIL_MAP   | This T2T stores the Party email details.   |

The mapping details for the Party Contact Details T2Ts are given here.

| Source Table<br>Name | Logical Stage Table<br>Name | Fact Table Name | Logical Fact Table<br>Name | T2T Name         |
|----------------------|-----------------------------|-----------------|----------------------------|------------------|
| STG_PARTY_PH         | Stage Party Phone           | FCT_PARTY_PHO   | Fact Party Phone           | T2T_FCT_PARTY_PH |
| ONE_MAP              | Map                         | NE_MAP          | Map                        | ONE_MAP          |
| STG_PARTY_AD         | Stage Party Address         | FCT_PARTY_ADD   | Fact Party Address         | T2T_FCT_PARTY_AD |
| DRESS_MAP            | Map                         | RESS_MAP        | Map                        | DRESS_MAP        |
| STG_PARTY_EM         | Stage Party Email           | FCT_PARTY_EMA   | Fact Party Email           | T2T_FCT_PARTY_EM |
| AIL_MAP              | Map                         | IL_MAP          | Map                        | AIL_MAP          |

### 15.5 **Party Identification Document Tables**

The Party Identification Document contains identification details of an individual Party. Identification means the action or process of identifying someone or something, or the fact of being identified.

The purpose of Party Identification Document tables is that the data from these tables can be used in the Know Before You Owe related tables.

#### **About Party Identification Document Dimension Tables** 15.5.1

Party Identification Document Dimension table names and their description are given here.

| Logical Dimension Table Name | Dimension Table Description  |
|------------------------------|--|
| Document Type Dimension      | This table stores the list of all types of documents that are required by the insurance company for an account. The document types can be those specified by the Insurance Company or those required for the process in the Insurance Company. |
| Document Sub Type Dimension  | The table stores the document sub type.  Sample values: If the document type is visa then the sub type is student or tourist visa.   |

The mapping details for the Party Identification Document Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                 | Logical Stage<br>Table Name       | Dimension Table           | Logical Dimension Table Name   |
|-------------------------|--------------------------------------|-----------------------------------|---------------------------|--------------------------------|
| 457                     | STG_DOCUMENT_<br>TYPE_MASTER         | Stage Document<br>Type Master     | DIM_DOCUMENT_T<br>YPE     | Document Type Dimension        |
| 553                     | STG_DOCUMENT_<br>SUB_TYPE_MASTE<br>R | Stage Document<br>Sub Type Master | DIM_DOCUMENT_S<br>UB_TYPE | Document Sub Type<br>Dimension |

#### 15.5.2 **About Party Identification Document T2T (Result Table)**

Party Identification Document T2T and its description is given here.

| T2T Name                     | T2T Description   |
|------------------------------|---|
| T2T_FCT_PARTY_IDENTIFCTN_DOC | This T2T stores identification details of an individual Party. Identification means the action or process of identifying someone or something, or the fact of being identified. |

The mapping details for the Party Identification Document T2T is given here.

| Source Table<br>Name                 | Logical Stage<br>Table Name               | Fact Table Name                  | Logical Fact Table<br>Name               | T2T Name                         |
|--------------------------------------|---|----------------------------------|--|----------------------------------|
| STG_PARTY_IDE<br>NTIFICATION_DO<br>C | Stage Party<br>Identification<br>Document | FCT_PARTY_IDENTI<br>FICATION_DOC | Fact Party<br>Identification<br>Document | T2T_FCT_PARTY_IDE<br>NTIFCTN_DOC |

#### 15.6 **Party Medical Attributes Tables**

Party Medical Subject Area covers information elements pertaining to medical treatment or test or conditions.

The purpose of the Party Medical attributes tables is to cover detail medical history of applicant or policyholder and use the data in either underwriting or continuing the existing insurance coverage.

#### 15.6.1 **About Party Medical Attributes Dimension Tables**

Party Medical Attributes Dimension table names and their description are given here.

| Logical Dimension Table Name | Dimension Table Description  |
|------------------------------|--|
| Medical Test Type Dimension  | This table stores the medical test details that the Party has undergone. A medical test is a kind of medical procedure performed to detect, diagnose, or monitor diseases, disease processes, susceptibility, and determine a course of treatment. It is related to clinical chemistry and molecular |

| Logical Dimension Table Name              | Dimension Table Description  |
|---|--|
|   | diagnostics, and the procedures are typically performed in a medical laboratory.   |
| Medical Treatment Type Dimension          | This table stores details of the different types of medical treatment a Party has undergone due to illness, accidents or any medical emergency.  Medical treatment means the management and care of a patient to combat disease or disorder.   |
| Party Medical Condition Type Dimension    | This table stores the medical condition type details of the Party if that Party is suffering from any health issues. The medical condition types are used to describe the condition of a patient (that is, their clinical status) in a hospital.  Sample values: TUMORBENIGN, TUMORMALIGNANT, TUMOR, AAA, etc. |
| Medical Test Status Dimension             | This table stores the medical test status details of a Party.  Sample values: ACKNOWLEDGED, ADD, APPROVED, CANCELLED, COMPLETED, WARNING, etc.   |
| Medical Test Result Type Dimension        | This table stores the medical test result type details. Sample values: ANEG, APOS, ABNEG, ABPOS, ABNORMAL, AMBER, CLOTTED, etc.  |
| Medical Test Reference Range<br>Dimension | This table stores details about the medical test reference range codes.  Sample values: MAXVALUE, MINVALUE.  |
| Medical Condition Status Dimension        | This table stores the medical condition status details.  Sample values: COMPLETED, ONGOING, PENDING, RECOVERED, etc.   |
| Medical Condition Cause Type<br>Dimension | This table stores details about the medical condition cause type. Sample values: ANXIETY, CAFFEINE, FAMDEATH, etc.   |
| Lab Test Remarks Dimension                | This table stores the lab test remarks that are general classification of the remarks.  Sample values: HIGH, LOW, NORMAL.  |
| Laboratory Kit Type Dimension             | This table stores the laboratory kit type details. Sample values: BLOOD, BLUR, ORAL, etc.  |
| Substance Usage Type Dimension            | This table stores the substance type details if the Party is in usage of any substances.   |
| Family Illness Type Dimension             | This table stores the family illness type, if the Party has any illness that is connected to his/her family background.  Sample Values: BLOOD PRESSURE, HEART ATTACK, DIABETES.  |
| Disability Reason Dimension               | This table stores the disability reason as to why the party is disabled. Sample values: DTA, FI.   |
| Disability Type Dimension                 | This table stores the details of the type of disability caused to the Party due to the medical complaints or accidents or family illness.  Sample values: LTC, LTD, STD, STC.  |
| Individual Smoking History Dimension      | This table stores the individual smoking history, which indicates the history of tobacco use of a client.  Sample values: CURRENT, NEVER, PRIOR, OTHER, UNKNOWN.   |

The mapping details for the Party Medical Attributes Dimension tables are given here.

| Map reference number | Source Table<br>Name                   | Logical Stage Table<br>Name                     | Dimension Table Name             | Logical Dimension Table Name              |
|----------------------|--|---|----------------------------------|---|
| 477                  | STG_MEDICAL_TE<br>ST_TYPE_MASTER       | Stage Medical Test<br>Type Master               | DIM_MEDICAL_TES<br>T_TYPE        | Medical Test Type<br>Dimension            |
| 478                  | STG_MED_TREAT<br>MENT_TYPE_MAS<br>TER  | Stage Medical<br>Treatment Type<br>Master       | DIM_MEDICAL_TRE<br>ATMENT_TYPE   | Medical Treatment Type<br>Dimension       |
| 479                  | STG_PARTY_MED_<br>CNDN_TYPE_MAS<br>TER | Stage Party Medical<br>Condition Type<br>Master | DIM_PARTY_MEDIC<br>AL_CNDTN_TYPE | Party Medical Condition<br>Type Dimension |
| 482                  | STG_MEDICAL_TE<br>ST_STATUS_MAST<br>ER | Stage Medical Test<br>Status Master             | DIM_MEDICAL_TES<br>T_STATUS      | Medical Test Status<br>Dimension          |
| 563                  | STG_MED_TEST_R<br>SLT_TYPE_MASTE<br>R  | Stage Medical Test<br>Result Type Master        | DIM_MED_TEST_RE<br>SULT_TYPE     | Medical Test Result<br>Type Dimension     |
| 564                  | STG_MED_TEST_R<br>EF_RANGE_MAST<br>ER  | Stage Medical Test<br>Reference Range<br>Master | DIM_MED_TEST_RE<br>F_RANGE       | Medical Test Reference<br>Range Dimension |
| 565                  | STG_MED_CONDT<br>N_STATUS_MASTE<br>R   | Stage Medical<br>Condition Status<br>Master     | DIM_MED_CONDTN<br>_STATUS        | Medical Condition<br>Status Dimension     |
| 566                  | STG_MED_CNDTN<br>_CAUS_TYPE_MAS<br>TER | Stage Medical<br>Condition Cause<br>Type Master | DIM_MED_CONDTN<br>_CAUSE_TYPE    | Medical Condition<br>Cause Type Dimension |
| 481                  | STG_LAB_TEST_R<br>EMARKS_MASTER        | Stage Lab Test<br>Remarks Master                | DIM_LAB_TEST_RE<br>MARKS         | Lab Test Remarks<br>Dimension             |
| 561                  | STG_LABORATOR<br>Y_KIT_TYPE_MAST<br>ER | Stage Laboratory Kit<br>Type Master             | DIM_LABORATORY_<br>KIT_TYPE      | Laboratory Kit Type<br>Dimension          |
| 480                  | STG_SUBSTANC_<br>USAGE_TYPE_MA<br>STER | Stage Substance<br>Usage Type Master            | DIM_SUBSTANCE_U<br>SAGE_TYPE     | Substance Usage Type<br>Dimension         |
| 476                  | STG_FAMILY_ILLN<br>ESS_TYPE_MASTE<br>R | Stage Family Illness<br>Type Master             | DIM_FAMILY_ILLNE<br>SS_TYPE      | Family Illness Type<br>Dimension          |
| 473                  | STG_DISABILITY_R<br>EASON_MASTER       | Stage Disability<br>Reason Master               | DIM_DISABILITY_RE<br>ASON        | Disability Reason<br>Dimension            |
| 474                  | STG_DISABILITY_T<br>YPE_MASTER         | Stage Disability Type<br>Master                 | DIM_DISABILITY_TY<br>PE          | Disability Type<br>Dimension              |
| 562                  | STG_IND_SMOKIN<br>G_HISTORY_MAST<br>ER | Stage Individual<br>Smoking History<br>Master   | DIM_IND_SMOKING<br>_HISTORY      | Individual Smoking<br>History Dimension   |

### 15.6.2 **About Party Medical Attributes T2T (Result Tables)**

Party Medical Attributes T2Ts and their description are given here.

| T2T Name                        | T2T Description  |
|---------------------------------|--|
| T2T_FCT_MEDICAL_TEST_DETAILS    | This T2T stores the medical test details of a Party.   |
| T2T_FCT_PARTY_SUBS_USAGE_DTLS   | This T2T stores the substance usage details of a Party, if the party is in usage of any of the tobacco, alcohol or harmful substance that leads to the medical complaints or conditions.   |
| T2T_FCT_PARTY_FAMILY_MEDICAL_DA | This T2T stores the family medical data of a Party. The data is about medical history of the family members if any specific illness is present among most of the members.  |
| T2T_FCT_PARTY_MDCAL_CONDITN_DTL | This T2T stores the medical enquiry details or medical condition details of a Party on a given date. These are the details from questionnaire asked by insurance agents mostly at time of underwriting or deemed necessary during life of policy as per policy terms and conditions. |
| T2T_FCT_PARTY_MEDICAL_TREATMENT | This T2T stores the medical treatment details of a Party, which informs if the Party is either undergoing or has undergone any medical treatment due to any medical conditions or accidents or family illness.   |
| T2T_FCT_PARTY_DISABILITY_DETL   | This T2T stores the Party disability details.  |

The mapping details for the Party Medical Attributes T2T is given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name                  | Fact Table Name                        | Logical Fact Table<br>Name               | T2T Name                            |
|--|--|--|--|-------------------------------------|
| STG_MEDICAL_T<br>EST_DETAILS           | Stage Medical Test<br>Details                | FCT_MEDICAL_TE<br>ST_DETAILS           | Fact Medical Test<br>Details             | T2T_FCT_MEDICAL_TE<br>ST_DETAILS    |
| STG_PARTY_SU<br>BSTANCE_USAG<br>E_DTLS | Stage Party<br>Substance Usage<br>Details    | FCT_PARTY_SUBS<br>TANCE_USAGE_D<br>TLS | Fact Party<br>Substance Usage<br>Details | T2T_FCT_PARTY_SUB<br>S_USAGE_DTLS   |
| STG_PARTY_FA<br>MILY_MEDICAL_<br>DATA  | Stage Party Family<br>Medical Data           | FCT_PARTY_FAMI<br>LY_MEDICAL_DAT<br>A  | Fact Party Family<br>Medical Data        | T2T_FCT_PARTY_FAMI<br>LY_MEDICAL_DA |
| STG_PARTY_ME<br>DICAL_CONDITN<br>_DTLS | Stage Party<br>Medical Condition<br>Details  | FCT_PARTY_MEDI<br>CAL_CONDITN_DT<br>LS | Fact Party Medical<br>Condition Details  | T2T_FCT_PARTY_MDC<br>AL_CONDITN_DTL |
| STG_PARTY_ME<br>DICAL_TRTMNTS<br>_DTLS | Stage Party<br>Medical Treatments<br>Details | FCT_PARTY_MEDI<br>CAL_TREATMENTS       | Fact Party Medical<br>Treatments Details | T2T_FCT_PARTY_MEDI<br>CAL_TREATMENT |
| STG_PARTY_DIS<br>ABILITY_DETAIL<br>S   | Stage Party<br>Disability Details            | FCT_PARTY_DISA<br>BILITY_DETAILS       | Fact Party Disability<br>Details         | T2T_FCT_PARTY_DISA<br>BILITY_DETL   |

## Party Financial Data/Employment Attributes Tables 15.7

Party Financial Data/Employment Attributes contain details related to the profession of a Party.

#### 15.7.1 **About Party Financial Data/Employment Attributes Dimension Tables**

Party Financial Data/Employment Attributes Dimension table names and their description are given here.

| Logical Dimension Table Name  | Dimension Tables Description                                   |  |
|-------------------------------|--|--|
| Profession Dimension          | This table stores the master list of all customer professions. |  |
| Profession Sub Type Dimension | This table stores the profession sub type.                     |  |
|                               | Sample value: Orthodontist.                                    |  |

The mapping details for the Party Financial Data/Employment Attributes Dimension tables are given here.

| Map Reference<br>Number | Source Table Name                  | Logical Stage Table<br>Name         | Dimension Table<br>Name     | Logical Dimension Table Name     |
|-------------------------|------------------------------------|-------------------------------------|-----------------------------|----------------------------------|
| 334                     | STG_PROFESSION_<br>MASTER          | Stage Profession<br>Master          | DIM_PROFESSION              | Profession<br>Dimension          |
| 676                     | STG_PROFESSION_<br>SUB_TYPE_MASTER | Stage Profession Sub<br>Type Master | DIM_PROFESSION_<br>SUB_TYPE | Profession Sub Type<br>Dimension |

#### 15.7.2 **About Party Financial Data/Employment Attributes T2T (Result Table)**

Party Financial Data/Employment Attributes T2T and its description is given here.

| T2T Name                          | T2T Description  |
|-----------------------------------|--|
| T2T_FCT_PARTY_EMPLOYMENT_DET AILS | This T2T stores the employment details of an individual Party. This data applies only to Parties who are individuals. A single Party may consist of multiple employment details. |

The mapping details for the Party Financial Data/Employment Attributes T2T is given here.

| Source Table<br>Name                 | Logical Stage<br>Table Name       | Fact Table Name                      | Logical Fact Table<br>Name       | T2T Name                             |
|--------------------------------------|-----------------------------------|--------------------------------------|----------------------------------|--------------------------------------|
| STG_PARTY_EMP<br>LOYMENT_DETAI<br>LS | Stage Party<br>Employment Details | FCT_PARTY_EMP<br>LOYMENT_DETAI<br>LS | Fact Party<br>Employment Details | T2T_FCT_PARTY_EM<br>PLOYMENT_DETAILS |

### 15.8 Party Producer Exam, Certification, and License Tables

An Insurance Producer (also called an agent or insurance broker) means any person (individual, corporation, association, partnership, etc.) who or which is licensed to solicit, negotiate, or sell insurance.

There are different categories of insurance and a producer must be licensed in each category he or she wishes to transact business.

Purpose of the Party Producer Exam, Certification, and License tables is to assess eligibility of the Producer by evaluating the type of exam and its results, certifications completed, and license obtained by the Producer.

# **About Party Producer Exam, Certification, and License Dimension** 15.8.1 **Tables**

Party Producer Exam, Certification, and License Dimension table names and their description are given here.

| Logical Dimension Table Name           | Dimension Table Description  |
|--|--|
| Producer Dimension                     | This table stores producer details.  |
| Producer Status Dimension              | This table stores the Producer status if the Party is a Producer.  |
| Producer Agent Dimension               | This table stores producer details who is an insurance agent.  |
| Examination Dimension                  | This table stores the static fields of the Examination. An Exam is the formal verification or validation of information learned/known, typically used to satisfy a requirement for licenses, registrations or other firm education proof.  |
| Exam Type Dimension                    | This table stores the exam type.   |
|  | Sample values: CEGP, LLQPB.  |
| Insurance Exam Status Dimension        | This table stores the status of the insurance license exam attempted by the Party.   |
| Certification Dimension                | This table stores the static fields of the Certification. Certification is formal procedure by which an accredited or authorized person or agency assesses and verifies (and attests in writing by issuing a certificate) the attributes, characteristics, quality, qualification, or status of individuals or organizations, goods or services, procedures or processes, or events or situations, in accordance with established requirements or standards. |
| Insurance License Dimension            | This table stores the license related details of the Party as declared by the respective authorities of the insurance institutions. Here, license refers to the certificate or the document itself that confers permission to engage in insurance activity.  |
| Insurance License Class Type Dimension | This table stores the Insurance License Class Type. Sample values: AGNCY, INDPART.   |
| Insurance License Status Dimension     | This table contains the license status of the Party who has applied for license or who has given exam.   |

The mapping details for the Party Producer Exam, Certification, and License Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                     | Dimension Table<br>Name          | Logical Dimension Table Name              |
|-------------------------|--|---|----------------------------------|---|
| 412                     | VW_STG_PARTY_<br>MASTER_PRODUC<br>ER   | Stage Party Master<br>Producer View             | DIM_PRODUCER                     | Producer Dimension                        |
| 413                     | VW_STG_PARTY_<br>MASTER_PROD_A<br>GENT | Stage Party Master<br>Producer Agent View       | DIM_PRODUCER_<br>AGENT           | Producer Agent<br>Dimension               |
| 559                     | STG_PRODUCER_<br>STATUS_MASTER         | Stage Producer<br>Status Master                 | DIM_PRODUCER_<br>STATUS          | Producer Status<br>Dimension              |
| 475                     | STG_CERTIFICATI<br>ON_MASTER           | Stage Certification<br>Master                   | DIM_CERTIFICATI<br>ON            | Certification Dimension                   |
| 554                     | STG_EXAMINATIO<br>N_MASTER             | Stage Examination<br>Master                     | DIM_EXAMINATION                  | Examination Dimension                     |
| 560                     | STG_EXAM_TYPE_<br>MASTER               | Stage Exam Type<br>Master                       | DIM_EXAM_TYPE                    | Exam Type Dimension                       |
| 555                     | STG_INS_EXAM_S<br>TATUS_MASTER         | Stage Insurance<br>Exam Status Master           | DIM_INS_EXAM_ST<br>ATUS          | Insurance Exam Status<br>Dimension        |
| 557                     | STG_INSURANCE_<br>LICENSE_MASTER       | Stage Insurance<br>License Master               | DIM_INSURANCE_<br>LICENSE        | Insurance License<br>Dimension            |
| 556                     | STG_INS_LICENS_<br>CLS_TYPE_MASTE<br>R | Stage Insurance<br>License Class Type<br>Master | DIM_INS_LICENSE<br>_CLASS_TYPE   | Insurance License<br>Class Type Dimension |
| 558                     | STG_INS_LICENSE<br>_STATUS_MASTER      | Stage Insurance<br>License Status<br>Master     | DIM_INSURANCE_<br>LICENSE_STATUS | Insurance License<br>Status Dimension     |

# About Party Producer Exam, Certification, and License T2T (Result 15.8.2 Tables)

Party Producer Exam, Certification, and License T2T names and their description are given here.

| T2T Name                       | T2T Description   |
|--------------------------------|---|
| T2T_FCT_PARTY_EXAM_DETAILS     | This T2T stores the details pertaining to the certification and related exams of the Party. An Exam is the formal verification or validation of information learned/known, typically used to satisfy a requirement for licenses, registrations or other firm education proof.   |
| T2T_FCT_PARTY_CERTIFICATE_DTLS | This T2T stores the certification details of the Party. Certification is formal procedure by which an accredited or authorized person or agency assesses and verifies (and attests in writing by issuing a certificate) the attributes, characteristics, quality, qualification, or status of individuals or organizations, goods or services, procedures or processes, or events or situations, in accordance with established requirements or standards. In case of insurance this refers to insurance licentiate and other accreditations. |

| T2T Name                            | T2T Description  |
|-------------------------------------|--|
| T2T_FCT_PRDR_AGENT_LICENSE_DE TAILS | This T2T stores the Producer License Details of the Party. There are different categories of insurance and a producer must be licensed in each category he or she wishes to transact business. |

The mapping details for the Party Producer Exam, Certification, and License T2Ts are given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name                | Fact Table Name                    | Logical Fact<br>Table Name                | T2T Name                                   |
|--|--|------------------------------------|---|--|
| STG_PARTY_EXA                          | Stage Party Exam                           | FCT_PARTY_EXAM_                    | Fact Party Exam                           | T2T_FCT_PARTY_EX                           |
| M_DETAILS                              | Details                                    | DETAILS                            | Details                                   | AM_DETAILS                                 |
| STG_PARTY_CER                          | Stage Party                                | FCT_PARTY_CERTI                    | Fact Party                                | T2T_FCT_PARTY_CE                           |
| TIFICATE_DTLS                          | Certificate Details                        | FICATE_DTLS                        | Certificate Details                       | RTIFICATE_DTLS                             |
| STG_PRDR_AGE<br>NT_LICENSE_DET<br>AILS | Stage Producer<br>Agent License<br>Details | FCT_PRDR_AGENT<br>_LICENSE_DETAILS | Fact Producer<br>Agent License<br>Details | T2T_FCT_PRDR_AG<br>ENT_LICENSE_DETA<br>ILS |

### 15.9 **Party Results Tables**

Party Results consists of the details related to Party such as Annual Income, and Primary Source of Wealth, etc.

#### 15.9.1 **About Party Results Dimension Tables**

Party Results Dimension table names and their description are given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| Customer Type Dimension      | This table stores the master list of customer type details. Sample values: OUR, OTH. |
| Credit Rating Dimension      | This table stores credit rating information.   |

The mapping details for the Party Results Dimension tables are given here.

| Map Reference | Source Table    | Logical Stage Table | Dimension Table  | Logical Dimension Table Name |
|---------------|-----------------|---------------------|------------------|------------------------------|
| Number        | Name            | Name                | Name             |                              |
| 418           | STG_PARTY_TYPE  | Stage Party Type    | DIM_CUSTOMER_TY  | Customer Type                |
|               | _MASTER         | Master              | PE               | Dimension                    |
| 466           | STG_CREDIT_RATI | Stage Credit Rating | DIM_CREDIT_RATIN | Credit Rating                |
|               | NG_MASTER       | Master              | G                | Dimension                    |

#### 15.9.2 **About Party Results T2T (Result Table)**

Party Results T2T and its description is given here.

| T2T Name              | T2T Description  |
|-----------------------|--|
| T2T_FCT_PARTY_DETAILS | This T2T stores information related to Party such as Annual Income, and Primary Source of Wealth, etc. |

The mapping details for the Party Results T2T is given here.

| Source Table<br>Name  | Logical Stage<br>Table Name | Fact Table Name       | Logical Fact Table<br>Name | T2T Name              |
|-----------------------|-----------------------------|-----------------------|----------------------------|-----------------------|
| STG_PARTY_D<br>ETAILS | Stage Party Details         | FCT_PARTY_DET<br>AILS | Fact Party Details         | T2T_FCT_PARTY_DETAILS |

### 15.10 **Other Party Attributes Tables**

This section consists of details about other Party attribute tables.

#### 15.10.1 **About Other Party Attributes Dimension Tables**

Other Party Attributes Dimension table names and their description are given here.

| Logical Dimension Table Name      | Dimension Table Description  |
|-----------------------------------|--|
| Party Type Dimension              | This table stores Party type information. The Party may be an individual, Corporate - Small, Corporate - Medium, State Government, Sovereign etc.  |
| Party Relationship Type Dimension | This table stores the relationship types defined by the Insurance Company. This table is used to determine the relationship type between two Parties. This can also be used for relationship type between an entity and a Party. |
| Relation Role Type Dimension      | This table stores the Relation Role type details.  Sample values: ORIGINATOR, PERFORMER, RECIPIENT, TARGET, etc.   |
| Reinsurer Type Dimension          | This table stores the list of types of reinsurers and generated from stage party type master which holds all the party types at one place.   |

The mapping details for the Other Party Attributes Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage<br>Table Name                | Dimension Table<br>Name         | Logical Dimension Table Name         |
|-------------------------|--|--|---------------------------------|--------------------------------------|
| 180                     | STG_PARTY_TYP<br>E_MASTER              | Stage Party Type<br>Master                 | DIM_PARTY_TYPE                  | Party Type Dimension                 |
| 382                     | STG_PARTY_REL<br>TNSHP_TYPE_MA<br>STER | Stage Party<br>Relationship Type<br>Master | DIM_PARTY_RELATI<br>ONSHIP_TYPE | Party Relationship Type<br>Dimension |
| 483                     | STG_RELATION_<br>ROLE_TYPE_MAS<br>TER  | Stage Relation Role<br>Type Master         | DIM_RELATION_RO<br>LE_TYPE      | Relation Role Type<br>Dimension      |
| 597                     | STG_REINSURER<br>_TYPE_MASTER          | Stage Reinsurer<br>Type Master             | DIM_REINSURER_T<br>YPE          | Reinsurer Type<br>Dimension          |

# 15.10.2 About Other Party Attributes T2Ts (Result Tables)

Other Party Attributes T2T and its description is given here.

| T2T Name                           | T2T Description   |
|------------------------------------|---|
| T2T_FCT_PARTY_DETAILS              | This T2T stores the details pertaining to a Party.                                    |
| T2T_FCT_PARTY_PARTY_RELATION SHIP  | This T2T stores the details about relationship between the Parties.                   |
| T2T_FCT_PARTY_RATING_DETAILS       | This T2T stores the rating details of the customer or counterparty or guarantor, etc. |
| T2T_FCT_PARTY_ACCOUNT_ROLE_<br>MAP | This T2T stores the details of role played by the Party against an account.           |
| T2T_FCT_ACCOUNT_RATING_DETAILS     | This T2T stores the account rating details from multiple sources.                     |

The mapping details for the Other Party Attributes T2T is given here.

| Source Table<br>Name                 | Logical Stage<br>Table Name       | Fact Table Name                  | Logical Fact Table<br>Name       | T2T Name                             |
|--------------------------------------|-----------------------------------|----------------------------------|----------------------------------|--------------------------------------|
| STG_PARTY_DET<br>AILS                | Stage Party Details               | FCT_PARTY_DETA<br>ILS            | Fact Party Details               | T2T_FCT_PARTY_DE<br>TAILS            |
| STG_PARTY_PAR<br>TY_RELATIONSHI<br>P | Stage Party Party<br>Relationship | FCT_PARTY_PART<br>Y_RELATIONSHIP | Fact Party Party<br>Relationship | T2T_FCT_PARTY_PA<br>RTY_RELATIONSHIP |
| STG_PARTY_RATI<br>NG_DETAILS         | Stage Party Rating Details        | FCT_PARTY_RATI<br>NG_DETAILS     | Fact Party Rating<br>Details     | T2T_FCT_PARTY_RA<br>TING_DETAILS     |
| STG_PARTY_ACC<br>OUNT_ROLE_MA<br>P   | Stage Party<br>Account Role Map   | FCT_PARTY_ACCO<br>UNT_ROLE_MAP   | Fact Party Account<br>Role Map   | T2T_FCT_PARTY_AC<br>COUNT_ROLE_MAP   |

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table<br>Name  | T2T Name        |
|----------------------|-----------------------------|-----------------|-----------------------------|-----------------|
| STG_ACCOUNT_         | Stage Account               | FCT_ACCOUNT_R   | Fact Account Rating Details | T2T_FCT_ACCOUNT |
| RATING_DETAILS       | Rating Details              | ATING_DETAILS   |                             | _RATING_DETAILS |

# 15.11 Deploying Party Related Tables on Hive

All RDBMS related Party related Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 15.12 Populating Party Related Dimension Tables

Follow this SCD process to populate data into any Party related Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Party Dimension table.

- 1. To populate data into any Party related Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of a Party related Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 15.13 Populating Party Related T2T Result Tables

Follow this T2T process to populate data into any Party related T2T Result table:

NOTE

You can also follow this T2T process to populate data into any Hive related Party T2T Result table.

- 1. To populate data into any Party related T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.

- d. Execute the Batch for T2T.
- **2.** To check the T2T batch execution status of the Party related Result tables, follow the procedure Check the Batch Execution Status of T2T.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

#### 16 **Product Tables**

This chapter provides information about Product tables in the Oracle Insurance Data Foundation application. This chapter includes the following topics:

- **About Product Dimension Table**
- **Deploying Product Tables on Hive**
- **Populating Product Dimension Tables**

Product tables are used to load product details that the customer has opted for.

#### 16.1 **About Product Dimension Tables**

Product Dimension table names and their description are given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| Product Dimension            | This table stores the details of all the products (existing and stopped) offered by the Insurance Company. |
| Product Category Dimension   | This table stores details about loan product category.   |
| Product Type Dimension       | This table stores details about loan product type.   |
| Product Feature Dimension    | This table stores the product feature details.   |

The mapping details for the Product Dimension tables are given here.

| Map Reference<br>Number | Source Table Name               | Logical Stage<br>Table Name      | Dimension Table<br>Name  | Logical Dimension Table Name  |
|-------------------------|---------------------------------|----------------------------------|--------------------------|-------------------------------|
| 78                      | STG_PRODUCT_MA<br>STER          | Stage Product<br>Master          | DIM_PRODUCT              | Product Dimension             |
| 83                      | STG_PRODUCT_CA<br>TEGORY_MASTER | Stage Product<br>Category Master | DIM_PRODUCT_C<br>ATEGORY | Product Category<br>Dimension |
| 85                      | STG_PRODUCT_TY<br>PE_MASTER     | Stage Product<br>Type Master     | DIM_PRODUCT_TY<br>PE     | Product Type Dimension        |
| 128                     | DIM_PRODUCT_V                   | Product Dimension<br>View        | DIM_PRODUCT              | Product Dimension             |
| 151                     | STG_PRODUCT_FE<br>ATURE_MASTER  | Stage Product<br>Feature Master  | DIM_PRODUCT_FE<br>ATURE  | Product Feature<br>Dimension  |

NOTE

The FSI\_PROD\_STD\_PROD\_TYPE\_MAP table has been added for mapping purposes, if the customer so desires. This table stores Product Standard Product Type mapping details.

# 16.2 Deploying Product Tables on Hive

All RDBMS related Product Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For the list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 16.3 Populating Product Dimension Tables

Follow this SCD process to populate data into Product Dimension tables:

**NOTE** 

You can also follow this SCD process to populate data into Hive related Product Dimension tables.

- 1. To populate data into any Product Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of a Product Dimension table, follow the procedure <a href="Check">Check</a> the Execution Status of the SCD Batch.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 17 Insurance Underwriting Entities

This chapter provides information about Insurance Underwriting entities in the Oracle Insurance Data Foundation application and step-by step instructions to use this section.

This chapter includes the following topics:

- Insurance Underwriting Application Tables
- About Insurance Underwriting Application Dimension Tables
- About Insurance Underwriting Application T2Ts (Result Tables)
- Insurance Underwriting Quotes Tables
- About Insurance Underwriting Quotes Dimension Tables
- About Insurance Underwriting Quotes T2Ts (Result Tables)
- Insurance Underwriting Tables for Risk Analysis
- About Insurance Underwriting Dimension Tables for Risk Analysis
- About Insurance Underwriting T2T (Result Table) for Risk Analysis
- Party Criminal Conviction Tables
- About Party Criminal Conviction Dimension Table
- About Party Criminal Conviction T2T (Result Table)
- Party Driving Violation Tables
- About Party Driving Violation Dimension Tables
- About Party Driving Violation T2T (Result Table)
- Party Lifestyle Activity Tables
- About Party Lifestyle Activity Dimension Tables
- About Party Lifestyle Activity T2T (Result Table)
- Deploying Insurance Underwriting Tables on Hive
- Populating Insurance Underwriting Dimension Tables
- Populating Insurance Underwriting T2T Result Tables

Insurance Underwriting describes the process of assessing risk, ensuring that the cost of the cover is proportionate to the risks faced by the Party or the organization concerned. It evaluates risk and exposures of potential Party or organization. Insurance Company decides the coverage the Party or organization must receive, and the premium associated with the coverage or whether to accept the risk and insure them.

# 17.1 Insurance Underwriting Application Tables

When an applicant applies for insurance, the Insurance Company must look at different criteria to decide if they are going to accept the application for coverage. As a result, the Insurance Company creates and documents detailed information about the applicant and this process is called as Underwriting Application.

# 17.1.1 About Insurance Underwriting Application Dimension Tables

Insurance Underwriting Application Dimension table names and their remarks are given here.

| Logical Dimension Table Name                    | Remarks  |
|---|--|
| Underwriting Product Class Dimension            | This table stores identification details of the underwriting class and its respective name or names. Underwriting class is carrier specific nomenclature representing the underwriting groups or products or risks in a given organization.                                    |
| Application Dimension                           | This table stores the underwriting application details.  |
| Application Type Dimension                      | This table stores the application type details such as fresh, existing, and enhancements.  |
| Application Group Dimension                     | This table stores the underwriting application group details.  Application group can contain one or more applications.   |
| Application Status Dimension                    | This table stores the master list of application status such as processing, cancelled by customer, outstanding, outstanding from restructuring, etc.   |
| Document Submission Status Dimension            | This table stores the list of various status that a document can have. Document once submitted to an Insurance Company contains different status such as Pending, Received, Mailed for approval, Received Back, Under Processing, Approved, etc.                               |
| Rejection Reason Dimension                      | This table stores all the rejection reasons given by prospects for not buying a product or service.  |
| Application Reject Reasons Dimension            | This table stores the list of rejection reasons possible when processing an application.   |
| Application Decision Event Dimension            | This table stores the details of the outcome of all decision events for the individual application. During the process of underwriting, an application goes through various stages such as personal identity verification, address verification, employment verification, etc. |
| Underwriting Model Type Dimension               | This table stores the list of all types of underwriting model types.   |
| Underwriting Element Dimension                  | This table stores the classification details of insurance policy underwriting related to tobacco usage.  Sample values: BLENDED, NONSMOKER, SMOKER, TOBACCO, etc.  |
| Insurance Underwriting Issue Type Dimension     | This table stores the Insurance Underwriting issue type details for a policy. For example Full Underwriting, Mass Underwriting, Reduced Underwriting, Simplified Underwriting, etc.  Sample values: OTHER, UNKNOWN, AVIATION, PERCOVERAGE, etc.                                |
| Insurance Underwriting Issue Sub Type Dimension | This table stores the Insurance Underwriting issue sub type details for a policy. This table provides additional details about the type of underwriting that was applied to the coverage.  Sample values: OTHER, UNKNOWN, FULLMED, NONMED, PARAMED.                            |

The mapping details for the Insurance Underwriting Application Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                              | Dimension Table<br>Name            | Logical Dimension<br>Table Name                       |
|-------------------------|--|--|------------------------------------|---|
| 523                     | STG_UNW_PRODU<br>CT_CLASS_MASTE<br>R   | Stage Underwriting<br>Product Class Master               | DIM_UNW_PRODUC<br>T_CLASS          | Underwriting Product<br>Class Dimension               |
| 664                     | STG_APPLICATION S                      | Stage Applications                                       | DIM_APPLICATION                    | Application Dimension                                 |
| 162                     | STG_APPL_TYPE_<br>MASTER               | Stage Application Type Master                            | DIM_APPLICATION_<br>TYPE           | Application Type<br>Dimension                         |
| 665                     | STG_APPLICATION<br>_GROUP_MASTER       | Stage Application<br>Group Master                        | DIM_APPLICATION_<br>GROUP          | Application Group<br>Dimension                        |
| 166                     | STG_APPL_STATU<br>S_MASTER             | Stage Application<br>Status Master                       | DIM_APPLICATION_<br>STATUS         | Application Status<br>Dimension                       |
| 673                     | STG_DOC_SUBMIS<br>SN_STATUS_MAST<br>ER | Stage Document<br>Submission Status<br>Master            | DIM_DOC_SUBMISS ION_STATUS         | Document Submission<br>Status Dimension               |
| 93                      | STG_REJECTION_<br>REASON_MASTER        | Stage Rejection<br>Reason Master                         | DIM_REJECTION_R<br>EASON           | Rejection Reason<br>Dimension                         |
| 3                       | STG_APPL_REJEC<br>T_REASON_MAST<br>ER  | Stage Application<br>Reject Reasons<br>Master            | DIM_APPLICATION_<br>REJECT_REASONS | Application Reject<br>Reasons Dimension               |
| 666                     | STG_APPLN_DECI<br>SION_EVNT_MAST<br>ER | Stage Application<br>Decision Event<br>Master            | DIM_APPLN_DECISI<br>ON_EVNT        | Application Decision<br>Event Dimension               |
| 409                     | STG_UNDRWRTNG<br>_MDL_TYPE_MAST<br>ER  | Stage Underwriting<br>Model Type Master                  | DIM_UNDERWRITIN<br>G_MODEL_TYPE    | Underwriting Model<br>Type Dimension                  |
| 522                     | STG_UNDERWRITI<br>NG_ELMNT_MAST<br>ER  | Stage Underwriting<br>Element Master                     | DIM_UNDERWRITIN<br>G_ELEMENT       | Underwriting Element<br>Dimension                     |
| 238                     | STG_UNDERWRIT<br>ER_MASTER             | Stage Underwriter<br>Master                              | DIM_UNDERWRITE<br>R                | Underwriter Dimension                                 |
| 725                     | STG_INS_UNW_IS<br>SUE_TYPE_MASTE<br>R  | Stage Insurance<br>Underwriting Issue<br>Type Master     | DIM_INS_UNW_ISS<br>UE_TYPE         | Insurance Underwriting Issue Type Dimension           |
| 726                     | STG_INS_UNW_IS<br>SUE_STYPE_MAST<br>ER | Stage Insurance<br>Underwriting Issue<br>Sub Type Master | DIM_INS_UNW_ISS<br>UE_STYPE        | Insurance Underwriting<br>Issue Sub Type<br>Dimension |

# **About Insurance Underwriting Application T2Ts (Result Tables)** 17.1.2

Insurance Underwriting Application T2Ts and their description are given here.

| T2T Name            | T2T Description   |
|---------------------|---|
| T2T_FCT_APPLICATION | This T2T stores the applications processed in each period, for an analysis over time. |

| T2T Name                       | T2T Description  |
|--------------------------------|--|
| T2T_FCT_APPLICATION_GROUP      | This T2T stores the Application Group details. Application group can consist of one or more applications. In general, insurance underwriting team creates the application group.   |
| T2T_FCT_APPLICATION_DOCUMENT   | This T2T stores the documents submitted by the applicant. Underwriters may ask multiple verification documents from those seek to cover the risk with insurance company. All such documentary evidences are stored in this entity.                                       |
| T2T_FCT_APPLICATION_DOC_MAP    | This T2T stores the details of the document associated with the application and the status of the document such as a document is approved or rejected.   |
| T2T_FCT_APPLICATION_EVENT_DEC  | This T2T stores details of the outcome of all decision events for the individual application. During the process of underwriting, an application goes through various stages such as personal identity verification, address verification, employment verification, etc. |
| T2T_FCT_APPLICATIONS_DEVIATION | This T2T stores the application deviation details.   |
| T2T_FCT_APPLICNS_DOC_PRINT_LOG | This T2T stores the history of documents printed at origination.  Multiple documents can be printed for the loan at origination.   |
| T2T_FCT_APPLN_GROUP_EVENT_DEC  | This T2T stores details of the outcome of all decision events for an Application Group. During the process of underwriting, an application goes through various stages like personal identity verification, address verification, employment verification, etc.          |
| T2T_FCT_APPLN_PARTY_ROLE_MAP   | This T2T stores mapping details of an application to multiple roles played by a party. A party can be primary applicant, co-applicant, Guarantor, Nominee etc.   |

The mapping details for the Insurance Underwriting Application T2Ts are given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name                 | Fact Table Name                        | Logical Fact<br>Table Name                 | T2T Name                           |
|--|---|--|--|------------------------------------|
| STG_APPLICATI<br>ONS                   | Stage Applications                          | FCT_APPLICATIO<br>N                    | Fact Applications                          | T2T_FCT_APPLICATION                |
| STG_APPLICATI<br>ON_GROUP              | Stage Application<br>Group                  | FCT_APPLICATIO<br>N_GROUP              | Fact Application<br>Group                  | T2T_FCT_APPLICATION_<br>GROUP      |
| STG_APPLICATI<br>ON_DOCUMENT           | Stage Application Document                  | FCT_APPLICATIO<br>N_DOCUMENT           | Fact Application<br>Document               | T2T_FCT_APPLICATION_<br>DOCUMENT   |
| STG_APPLICATI<br>ON_DOCUMENT<br>_MAP   | Stage Application<br>Document Map           | FCT_APPLICATIO<br>N_DOCUMENT_M<br>AP   | Fact Application<br>Document Map           | T2T_FCT_APPLICATION_<br>DOC_MAP    |
| STG_APPLICATI<br>ON_EVENT_DEC<br>ISION | Stage Application<br>Event Decision         | FCT_APPLICATIO<br>N_EVENT_DECISI<br>ON | Fact Application<br>Event Decision         | T2T_FCT_APPLICATION_<br>EVENT_DEC  |
| STG_APPLICATI<br>ONS_DEVIATION         | Stage Applications<br>Deviation             | FCT_APPLICATIO<br>NS_DEVIATION         | Fact Applications<br>Deviation             | T2T_FCT_APPLICATIONS<br>_DEVIATION |
| STG_APPLICATI<br>ONS_DOC_PRIN<br>T_LOG | Stage Applications<br>Document Print<br>Log | FCT_APPLICATIO<br>NS_DOC_PRINT_<br>LOG | Fact Applications<br>Document Print<br>Log | T2T_FCT_APPLICNS_DO<br>C_PRINT_LOG |

| Source Table<br>Name                   | Logical Stage<br>Table Name                  | Fact Table Name                        | Logical Fact<br>Table Name                  | T2T Name                          |
|--|--|--|---|-----------------------------------|
| STG_APPLN_GR<br>OUP_EVENT_DE<br>CISION | Stage Application<br>Group Event<br>Decision | FCT_APPLN_GRO<br>UP_EVENT_DECI<br>SION | Fact Application<br>Group Event<br>Decision | T2T_FCT_APPLN_GROU<br>P_EVENT_DEC |
| STG_APPLN_PA<br>RTY_ROLE_MAP           | Stage Application<br>Party Role Map          | FCT_APPLN_PAR<br>TY_ROLE_MAP           | Fact Application<br>Party Role Map          | T2T_FCT_APPLN_PARTY<br>_ROLE_MAP  |

#### 17.2 **Insurance Underwriting Quotes Tables**

An insurance quote is an estimate of what an applicant's rate can be with a potential Insurance Company. Quotes are subject to change depending on how much information an applicant gives at the time of the quote. The more forthcoming an applicant is with information, the more accurate is their insurance quote.

#### 17.2.1 **About Insurance Underwriting Quotes Dimension Tables**

Insurance Underwriting Quotes Dimension table names and their remarks are given here.

| Logical Dimension Table Name      | Remarks   |
|-----------------------------------|---|
| Quote Source Dimension            | This table stores the description of the source of the quote.  For example, Producing Agency, Producing Agent, Customer, etc.                                 |
| Quote Source Method Dimension     | This table stores the description of the source method of the quotes.  For example, Turbo rater, quick quote, etc.  |
| Quote Submission Method Dimension | This table stores details of different methods from which the Insurance Company receives the quote.  For example, mail, fax, internet, etc.                   |
| Quote Declination Type Dimension  | This table stores all types of quote declinations.  For example, Rates too high, Billing Plan, Fraud and Bankruptcy, Uninsurable Risks, Age of Building, etc. |

The mapping details for the Insurance Underwriting Quotes Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name | Logical Stage Table<br>Name | Dimension Table Name | Logical Dimension Table Name |
|-------------------------|----------------------|-----------------------------|----------------------|------------------------------|
| 251                     | STG_QUOTE_SOU<br>RCE | Stage Quote Source          | DIM_QUOTE_SOU<br>RCE | Quote Source<br>Dimension    |
| 252                     | STG_QUOTE_SOU        | Stage Quote Source          | DIM_QUOTE_SOU        | Quote Source Method          |
|                         | RCE_METHOD           | Method                      | RCE_METHOD           | Dimension                    |
| 253                     | STG_QUOTE_SUB        | Stage Quote                 | DIM_QUOTE_SUB        | Quote Submission             |
|                         | MISSION_METHOD       | Submission Method           | MISSION_METHOD       | Method Dimension             |

| Map Reference | Source Table  | Logical Stage Table | Dimension Table | Logical Dimension Table Name |
|---------------|---------------|---------------------|-----------------|------------------------------|
| Number        | Name          | Name                | Name            |                              |
| 250           | STG_QUOTE_DEC | Stage Quote         | DIM_QUOTE_DECL  | Quote Declination            |
|               | LINATION_TYPE | Declination Type    | INATION_TYPE    | Type Dimension               |

#### 17.2.2 **About Insurance Underwriting Quotes T2Ts (Result Tables)**

Insurance Underwriting Quotes T2Ts and their description are given here.

| T2T Name                        | T2T Description  |
|---------------------------------|--|
| T2T_FCT_INSURANCE_QUOTES        | This T2T stores all the quote related attributes and measures. |
| T2T_FCT_INSURANCE_QUOTE_REPORTS | This T2T stores report related information for each quote.     |

The mapping details for the Insurance Underwriting Quotes T2Ts are given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact<br>Table Name | T2T Name           |
|----------------------|-----------------------------|-----------------|----------------------------|--------------------|
| STG_INSURANCE_       | Stage Insurance             | FCT_INSURANCE_  | Fact Insurance             | T2T_FCT_INSURANCE_ |
| QUOTES               | Quotes                      | QUOTES          | Quotes                     | QUOTES             |
| STG_INSURANCE_       | Stage Insurance             | FCT_INSURANCE_  | Fact Insurance             | T2T_FCT_INSURANCE_ |
| QUOTE_REPORTS        | Quote Reports               | QUOTES_REPORTS  | Quote Reports              | QUOTE_REPORTS      |

### 17.3 **Insurance Underwriting Tables for Risk Analysis**

Insurance Company determines and asses the risk for itself when offering insurance to an insurer through Underwriting process. Lesser the risk, lesser the cost to an insurer.

#### 17.3.1 **About Insurance Underwriting Dimension Tables for Risk Analysis**

Underwriting Dimension table names (for Risk Analysis) and their remarks are given here.

| Logical Dimension Table Name         | Remarks  |
|--------------------------------------|--|
| Underwriting Risk Sub Type Dimension | This table stores the underwriting sub risk type. Sample values: Preferred, Rated, Substandard, Standard, Uninsurable etc. |
| Underwriting Risk Type Dimension     | This table stores the underwriting risk type. Sample values: best, better, worse, worst, other, unknown.                   |

The mapping details for the Underwriting Dimension tables (for Risk Analysis) are given here.

| Map Reference<br>Number | Source Table<br>Name             | Logical Stage Table<br>Name                   | Dimension Table Name      | Logical Dimension Table Name            |
|-------------------------|----------------------------------|---|---------------------------|---|
| 524                     | STG_UNW_RISK_S<br>UB_TYPE_MASTER | Stage Underwriting<br>Risk Sub Type<br>Master | DIM_UNW_RISK_S<br>UB_TYPE | Underwriting Risk Sub<br>Type Dimension |
| 525                     | STG_UNW_RISK_T<br>YPE_MASTER     | Stage Underwriting<br>Risk Type Master        | DIM_UNW_RISK_T<br>YPE     | Underwriting Risk Type Dimension        |

#### About Insurance Underwriting T2T (Result Table) for Risk Analysis 17.3.2

Underwriting T2T and its description is given here.

| T2T Name                          | T2T Description  |
|-----------------------------------|--|
| T2T_FCT_UNW_PRODUCT_CLASS_DETAILS | This T2T stores the underwriting class product details. It provides life product allowed issue limitations based on the underwriting risk properties including gender, age, tobacco usage, underwriting class, and face/coverage amount. |

The mapping details for the Underwriting T2T table is given here

| Source Table<br>Name                  | Logical Stage Table<br>Name                 | Fact Table Name                       | Logical Fact Table<br>Name                    | T2T Name                                  |
|---------------------------------------|---|---------------------------------------|---|---|
| STG_UNW_PRO<br>DUCT_CLASS_D<br>ETAILS | Stage Underwriting<br>Product Class Details | FCT_UNW_PRODU<br>CT_CLASS_DETAIL<br>S | Fact Underwriting<br>Product Class<br>Details | T2T_FCT_UNW_PR<br>ODUCT_CLASS_DE<br>TAILS |

### **Party Criminal Conviction Tables** 17.3.3

Party Criminal Conviction is the outcome of a criminal prosecution, which concludes in a judgment that the defendant is guilty of the crime(s) charged.

#### 17.3.3.1 **About Party Criminal Conviction Dimension Table**

Party Criminal Conviction Dimension table name and its remarks is given here.

| Logical Dimension Table Name | Remarks   |
|------------------------------|---|
| Crime Type Dimension         | This table stores the crime type if the Party is involved in any criminal activity. |

The mapping details for the Party Criminal Conviction Dimension table is given here.

| Map Reference | Source Table              | Logical Stage              | Dimension Table | Logical Dimension Table Name |
|---------------|---------------------------|----------------------------|-----------------|------------------------------|
| Number        | Name                      | Table Name                 | Name            |                              |
| 550           | STG_CRIME_TYP<br>E_MASTER | Stage Crime Type<br>Master | DIM_CRIME_TYPE  | Crime Type Dimension         |

#### 17.3.3.2 **About Party Criminal Conviction T2T (Result Table)**

Party Criminal Conviction T2T and its description is given here.

| T2T Name                         | T2T Description  |
|----------------------------------|--|
| T2T_FCT_CRIMINAL_CONVICTION_DTLS | This T2T stores the criminal conviction details if the Party is involved in any criminal activity. |

The mapping details for the Party Criminal Conviction T2T is given here.

| Source Table<br>Name                 | Logical Stage Table Name             | Fact Table Name                  | Logical Fact Table<br>Name          | T2T Name                             |
|--------------------------------------|--------------------------------------|----------------------------------|-------------------------------------|--------------------------------------|
| STG_CRIMINAL_<br>CONVICTION_DT<br>LS | Stage Criminal<br>Conviction Details | FCT_CRIMINAL_C<br>ONVICTION_DTLS | Fact Criminal<br>Conviction Details | T2T_FCT_CRIMINAL_C<br>ONVICTION_DTLS |

#### **Party Driving Violation Tables** 17.3.4

Party Driving Violation is the violation of specific Road and Motor vehicle laws, by the driver (Party) of a vehicle. This information is collected for the purpose of either underwriting or continuing a suitable insurance coverage.

#### 17.3.4.1 **About Party Driving Violation Dimension Tables**

Party Driving Violation Dimension table names and their remarks are given here.

| Logical Dimension Table Name                | Remarks  |
|---|--|
| Driving violation type dimension            | This table stores master list of driving violation type.   |
| Driving Violation Charge Category Dimension | This table stores the driving violation charge category details. Sample values: Felony, Misdemeanor, Other, Unknown. |

The mapping details for the Party Driving Violation Dimension tables are given here.

| Map Reference<br>Number | Source Table Name                      | Logical Stage Table<br>Name                          | Dimension Table Name           | Logical Dimension Table Name                      |
|-------------------------|--|--|--------------------------------|---|
| 551                     | STG_DRIVIN_VIOLA<br>TN_TYPE_MASTER     | Stage Driving<br>Violation Type Master               | DIM_DRIVING_VIOLA<br>TION_TYPE | Driving Violation<br>Type Dimension               |
| 552                     | STG_DVIOLTN_CHR<br>GE_CTGRY_MASTE<br>R | Stage Driving<br>Violation Charge<br>Category Master | DIM_DVIOLTN_CHRG<br>E_CTGRY    | Driving Violation<br>Charge Category<br>Dimension |

#### 17.3.4.2 **About Party Driving Violation T2T (Result Table)**

Party Driving Violation T2T and its description is given here.

| T2T Name                       | T2T Description  |
|--------------------------------|--|
| T2T_FCT_DRIVING_VIOLATION_DTLS | This T2T stores the driving violation details related to the party identifier. |

The mapping details for the Party Driving Violation T2T is given here.

| Source Table<br>Name | Logical Stage Table<br>Name | Fact Table Name | Logical Fact Table Name | T2T Name          |
|----------------------|-----------------------------|-----------------|-------------------------|-------------------|
| STG_DRIVING_VI       | Stage Driving               | FCT_DRIVING_VIO | Fact Driving            | T2T_FCT_DRIVING_V |
| OLATION_DTLS         | Violation Details           | LATION_DTLS     | Violation Details       | IOLATION_DTLS     |

#### 17.3.5 **Party Lifestyle Activity Tables**

Lifestyle Activity covers physical activities of the Party such as auto racing, aviation, boat racing, mountain climbing, para scuba diving and many more, which may be considered as risky by the insurance company.

The Lifestyle Activity tables store the details of particular Lifestyle Activities of the Party.

Lifestyle Activity tables can be mainly classified into Lifestyle Activity Details and its specific sub-categories.

#### 17.3.5.1 **About Party Lifestyle Activity Dimension Tables**

Party Lifestyle Activity Dimension table names and their remarks are given here.

| Logical Dimension Table Name       | Remarks   |  |  |
|------------------------------------|---|--|--|
| Life Style Activity Type Dimension | This table stores the details of life style activity type. Sample values: AUTORACE, AVIATION, BOATRACE, BOXING, RUGBY, FORTRAVEL, MILITARY, ROCKCLIMB, DIVE, etc. |  |  |
| Life Style Activity Dimension      | This table stores the details about lifestyle activity of a Party, its start date and end date.   |  |  |

| Logical Dimension Table Name  | Remarks  |
|---|--|
| Life Style Activity Violation Dimension                               | This table stores the information regarding life style activity violation.   |
| Life Style Activity Violation Type Dimension                          | This table stores the Life Style Activity violation type. Sample values: FAA Equipment violation, license suspension, other.   |
| Life Style Activity Aircraft Dimension                                | This table stores the aircraft model and its manufacturer details for the specified model and identifier.  |
| Life Style Activity Aircraft Type Dimension                           | This table stores master list of type of the aircraft flown for the activity. Aircraft Type is used to specify the type of aircraft. If all the aircrafts are of the same Aircraft Type, then the type must be specified in the Aircraft Type on aviation experience.  Sample vales: bomber, Attack, Experimental, fighter, etc.     |
| Life Style Activity Air Sports Type Dimension                         | This table stores the different types of equipment used for the climbing activity.  Sample values: Slings, Nuts, Tricams, SLCD=Spring-Loaded camming Devices, Bolts, Pitons, Skyhooks.   |
| Life Style Activity Air Sports Balloon Type<br>Dimension              | This table stores the balloon type used for any air sports experience. Sample values: Air, Gas, Other.   |
| Life Style Activity Aviation Highest Qualification<br>Level Dimension | This table stores the highest qualification level achieved in aviation by the Party. Samples values: Commercial License, Instructors License, Instrument Rated, etc.   |
| Life Style Activity Aviation Type Dimension                           | This table stores the Aviation Type details. It is used to specify the type of aviation when it applies to all the aircraft flown by the client. If the Aviation Type varies by Aircraft, then the type must be specified in each individual Aircraft object instead.  Sample values: Commercial, Military, other, private, unknown. |
| Life Style Activity Aviation Certificate Type Dimension               | This table stores the aviation certificate type details. Sample values: single engine, sea, instrument rating, multi engine, land, other.  |
| Life Style Activity Craft Certificate Type<br>Dimension               | This table stores the craft certificate type. Sample values: airplane, glider, lighter than air, other, powered lift, rotorcraft, unknown.   |
| Life Style Activity Peril Type Dimension                              | This table stores the Life Style Activity Peril type details. Sample values: Dare-Devil Activities, Exhibitions, Exploration, Other, Unknown, Record Setting Activities, Rescue, Stunts.   |
| Life Style Activity Climbing Type Dimension                           | This table stores the details of different types of climbing activity. Sample values: traditional, top-rope, sport, lead, bouldering, solo, aid.   |
| Life Style Activity Medical Certificate Restriction<br>Type Dimension | This table stores the details of medical certificate restriction type, defines the types of restrictions or constraints that may apply to a medical certificate.  Sample values: other, restricted, special issue, unknown.  |
| Life Style Activity Military Organization Type<br>Dimension           | This table stores the type of military organization the Party is part of. Sample values: air force, army, coast guard, marines, national guards, navy, others.   |
| Life Style Activity Safety Equipment Used Type Dimension              | This table stores the details of different types of safety equipment used during the activity.   |

| Logical Dimension Table Name                                   | Remarks   |
|--|---|
|  | Sample values: Head and Neck Restraints, Onsite Medical Personnel, Other, Roll Cages, Unknown.  |
| Life Style Activity Equipment Assembly Dimension               | This table stores the details of equipment assembly. Sample values: Factory Assembled, home Assembled, Home build, other.   |
| Life Style Activity Flying Purpose Dimension                   | This table stores the details of purpose for flying. Sample values: Advertising, Aerobatics, Agricultural, Combat, Flight surgeon, etc.   |
| Life Style Activity Climbing Equipment Type Dimension          | This table stores the details of different types of equipment used for the climbing activity. Sample values: Slings, Nuts, Tricams, SLCD=Spring-Loaded camming Devices, Bolts, Pitons, Skyhooks.  |
| Life Style Activity Current Military Status<br>Dimension       | This table stores the details of current military status. Sample values: Active Duty, Active Reserve, Inactive, Retired, etc.   |
| Life Style Activity Race Track Type Dimension                  | This table stores the details of different race tract type. Sample values: Closed Course Inland, Closed Course Ocean, Drag, Hill climb, etc.  |
| Life Style Activity Racing Vehicle Type<br>Dimension           | This table stores the details of type of racing vehicles. Sample values: Automobile, Boat, Motorcycle, Other, Snowmobile, Unknown.  |
| Life Style Activity Class Of Competition Type Dimension        | This table stores the racing competitions class type details. Sub list values, where specified, correspond to the type of vehicle specified in the Vehicle Type property.  Sample Values: Formula 1, Cross country, Dirt track, Hill climbs, Ice racing, etc. |
| Life Style Activity Surface Type Dimension                     | This table stores the surface type details the race was primarily performed on. Sample values: Clay, dirt, ice, paved, sand, water, other, unknown.   |
| Life Style Activity Travel Purpose Type<br>Dimension           | This table stores the travel type purpose details. Sample values: Business, miscellaneous, Education, Employment, Family Visit, Volunteer Work, etc.  |
| Life Style Activity Travel Transportation Mode Dimension       | This table stores the dominant mode of travel details while in the foreign country.  Sample values: automobile, common carrier air, ship, etc.  |
| Life Style Activity Underwater Diving Type Dimension           | This table stores the diving type details. Samples values: Scuba, skin diving, snorkeling, hookah, hard hat.  |
| Life Style Activity Underwater Dive Training Type Dimension    | This table stores the master list of professionally recognized diving certifications and training courses.  |
| Life Style Activity Underwater Dive Location<br>Type Dimension | This table stores the details of dive location type, the environments, which apply to this Underwater Diving experience. Sample values: Coastal Waters, Deep Sea, Lakes, etc.   |
| Life Style Activity Underwater Dive Purpose<br>Type Dimension  | This table stores the underwater dive purpose details. Sample values: Abalone, Cave, Cavern diving, Exploration, Free Diving, etc.  |
| Life Style Activity Underwater Diving Equipment Type Dimension | This table stores the diving equipment type details. Sample values: closed circuit, wet suit, etc.  |

| Logical Dimension Table Name | Remarks   |
|------------------------------|---|
| Season Type Dimension        | This table stores the season type details. Sample values: fall, other, unknown, spring, summer, winter.                                   |
| Terrain Type Dimension       | This table stores the aviation certificate type details. Sample values: single engine, sea, instrument rating, multi engine, land, other. |

The mapping details for the Party Lifestyle Activity Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name   | Dimension Table                 | Logical Dimension Table Name                       |
|-------------------------|--|---|---------------------------------|--|
| 501                     | STG_LSA_TYPE_<br>MASTER                | Stage Life Style Activity Type Master                                     | DIM_LIFESTYLE_A<br>CTIVITY_TYPE | Life Style Activity Type<br>Dimension              |
| 527                     | STG_LSA_AIRSP<br>ORTS_EXP_DET<br>L_V   | Stage Life Style Activity<br>Airsports Experience<br>Details View         | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 528                     | STG_LSA_AVIATI<br>ON_EXP_DETAIL<br>S_V | Stage Life Style Activity<br>Aviation Experience<br>Details               | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 530                     | STG_LSA_COMP<br>ETITION_DTLS_V         | Stage Life Style Activity<br>Competition Details                          | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 531                     | STG_LSA_MILITA<br>RY_EXP_DETAIL<br>S_V | Stage Life Style Activity<br>Military Experience<br>Details               | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 532                     | STG_LSA_RACIN<br>G_EXPRNCE_DT<br>LS_V  | Stage Life Style Activity<br>Racing Experience<br>Details View            | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 533                     | STG_LSA_UW_DI<br>VNG_EXP_DETAI<br>LS_V | Stage Life Style Activity<br>Underwater Diving<br>Experience Details View | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 534                     | STG_LSA_FORG<br>N_TRVEL_EXP_<br>DTLS_V | Stage Life Style Activity<br>Foreign Travel<br>Experience Details View    | DIM_LIFESTYLE_A<br>CTIVITY      | Life Style Activity<br>Dimension                   |
| 502                     | STG_LSA_VIOLA<br>TION_MASTER           | Stage Life Style Activity<br>Violation Master                             | DIM_LSA_VIOLATI<br>ON           | Life Style Activity<br>Violation Dimension         |
| 503                     | STG_LSA_VIOLA<br>TION_TYPE_MAS<br>TER  | Stage Life Style Activity<br>Violation Type Master                        | DIM_LSA_VIOLATI<br>ON_TYPE      | Life Style Activity<br>Violation Type<br>Dimension |
| 504                     | STG_LSA_AIRCR<br>AFT_MASTER            | Stage Life Style Activity<br>Aircraft Master                              | DIM_LSA_AIRCRAF<br>T            | Life Style Activity Aircraft Dimension             |
| 505                     | STG_LSA_AIRCR<br>AFT_TYPE_MAS<br>TER   | Stage Life Style Activity<br>Aircraft Type Master                         | DIM_LSA_AIRCRAF<br>T_TYPE       | Life Style Activity Aircraft<br>Type Dimension     |
| 506                     | STG_LSA_AIRSP<br>ORTS_TYPE_MA<br>STER  | Stage Life Style Activity<br>Air Sports Type Master                       | DIM_LSA_AIRSPO<br>RTS_TYPE      | Life Style Activity Air<br>Sports Type Dimension   |

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name  | Dimension Table<br>Name        | Logical Dimension Table Name  |
|-------------------------|--|--|--------------------------------|---|
| 507                     | STG_LSA_AS_BA<br>LLOON_TYPE_M<br>ASTER | Stage Life Style Activity<br>Air Sports Balloon Type<br>Master                 | DIM_LSA_AS_BALL<br>OON_TYPE    | Life Style Activity Air<br>Sports Balloon Type<br>Dimension                 |
| 508                     | STG_LSA_AVIATI<br>ON_HQL_MASTE<br>R    | Stage Life Style Activity<br>Aviation Highest<br>Qualification Level<br>Master | DIM_LSA_AVIATIO<br>N_HQL       | Life Style Activity<br>Aviation Highest<br>Qualification Level<br>Dimension |
| 509                     | STG_LSA_AVIATI<br>ON_TYPE_MAST<br>ER   | Stage Life Style Activity<br>Aviation Type Master                              | DIM_LSA_AVIATIO<br>N_TYPE      | Life Style Activity<br>Aviation Type Dimension                              |
| 510                     | STG_LSA_AVITN<br>_CRTF_TYPE_M<br>ASTER | Stage Life Style Activity<br>Aviation Certificate<br>Type Master               | DIM_LSA_AVIATN_<br>CERTF_TYPE  | Life Style Activity<br>Aviation Certificate Type<br>Dimension               |
| 511                     | STG_LSA_CERT<br>_CRAFT_TYPE_<br>MASTER | Stage Life Style Activity<br>Craft Certificate Type<br>Master                  | DIM_LSA_CERT_C<br>RAFT_TYPE    | Life Style Activity Craft<br>Certificate Type<br>Dimension                  |
| 512                     | STG_LSA_PERIL<br>_TYPE_MASTER          | Stage Life Style Activity<br>Peril Type Master                                 | DIM_LSA_PERIL_T<br>YPE         | Life Style Activity Peril<br>Type Dimension                                 |
| 513                     | STG_LSA_CLIMB<br>ING_TYPE_MAST<br>ER   | Stage Life Style Activity<br>Climbing Type Master                              | DIM_LSA_CLIMBIN<br>G_TYPE      | Life Style Activity<br>Climbing Type<br>Dimension                           |
| 515                     | STG_LSA_MED_<br>CERTR_TYPE_M<br>ASTER  | Stage Life Style Activity<br>Medical Certificate<br>Restriction Type Master    | DIM_LSA_MED_CE<br>RTR_TYPE     | Life Style Activity Medical<br>Certificate Restriction<br>Type Dimension    |
| 516                     | STG_LSA_MILTR<br>Y_ORG_TYPE_M<br>ASTER | Stage Life Style Activity<br>Military Organization<br>Type Master              | DIM_LSA_MILITAR<br>Y_ORG_TYPE  | Life Style Activity Military<br>Organization Type<br>Dimension              |
| 517                     | STG_LSA_SAFET<br>Y_EQP_TYPE_M<br>ASTER | Stage Life Style Activity<br>Safety Equipment Used<br>Type Master              | DIM_LSA_SAFETY_<br>EQP_TYPE    | Life Style Activity Safety<br>Equipment Used Type<br>Dimension              |
| 518                     | STG_LSA_EQUIP<br>MT_ASSMBLY_M<br>ASTER | Stage Life Style Activity<br>Equipment Assembly<br>Master                      | DIM_LSA_EQUIPM<br>ENT_ASSEMBLY | Life Style Activity<br>Equipment Assembly<br>Dimension                      |
| 519                     | STG_LSA_FLYIN<br>G_PURPOSE_MA<br>STER  | Stage Life Style Activity<br>Flying Purpose Master                             | DIM_LSA_FLYING_<br>PURPOSE     | Life Style Activity Flying<br>Purpose Dimension                             |
| 535                     | STG_LSA_CLMB<br>NG_EQP_TYPE_<br>MASTER | Stage Life Style Activity<br>Climbing Equipment<br>Type Master                 | DIM_LSA_CLMBNG<br>_EQPMNT_TYPE | Life Style Activity<br>Climbing Equipment<br>Type Dimension                 |
| 536                     | STG_LSA_CUR_<br>MILITRY_STS_M<br>ASTER | Stage Life Style Activity<br>Current Military Status<br>Master                 | DIM_LSA_CUR_MIL<br>ITRY_STS    | Life Style Activity Current<br>Military Status Dimension                    |
| 537                     | STG_LSA_RACE<br>_TRACK_TYPE_<br>MASTER | Stage Life Style Activity<br>Race Track Type<br>Master                         | DIM_LSA_RACE_T<br>RACK_TYPE    | Life Style Activity Race<br>Track Type Dimension                            |
| 538                     | STG_LSA_RACE<br>_VHCL_TYPE_M<br>ASTER  | Stage Life Style Activity<br>Racing Vehicle Type<br>Master                     | DIM_LSA_RACE_V<br>HCL_TYPE     | Life Style Activity Racing<br>Vehicle Type Dimension                        |

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name   | Dimension Table<br>Name        | Logical Dimension Table Name   |
|-------------------------|--|---|--------------------------------|--|
| 539                     | STG_LSA_RACN<br>_CLS_COMPTN_<br>MASTER | Stage Life Style Activity<br>Class Of Competition<br>Type Master            | DIM_LSA_RACN_C<br>LS_OF_COMPTN | Life Style Activity Class<br>Of Competition Type<br>Dimension            |
| 540                     | STG_LSA_SURF<br>ACE_TYPE_MAS<br>TER    | Stage Life Style Activity<br>Surface Type Master                            | DIM_LSA_SURFAC<br>E_TYPE       | Life Style Activity Surface<br>Type Dimension                            |
| 541                     | STG_LSA_TRAV<br>EL_PUR_TYPE_<br>MASTER | Stage Life Style Activity<br>Travel Purpose Type<br>Master                  | DIM_LSA_TRAVEL_<br>PUR_TYPE    | Life Style Activity Travel<br>Purpose Type Dimension                     |
| 542                     | STG_LSA_TRAV<br>EL_TM_MASTER           | Stage Life Style Activity<br>Travel Transportation<br>Mode Master           | DIM_LSA_TRAVEL_<br>TM          | Life Style Activity Travel<br>Transportation Mode<br>Dimension           |
| 543                     | STG_LSA_UW_DI<br>VING_TYPE_MA<br>STER  | Stage Life Style Activity<br>Underwater Diving Type<br>Master               | DIM_LSA_UW_DIVI<br>NG_TYPE     | Life Style Activity<br>Underwater Diving Type<br>Dimension               |
| 544                     | STG_LSA_UW_D<br>V_TRNG_TYPE_<br>MASTER | Stage Life Style Activity<br>Underwater Dive<br>Training Type Master        | DIM_LSA_UW_DV_<br>TRNG_TYPE    | Life Style Activity<br>Underwater Dive<br>Training Type Dimension        |
| 545                     | STG_LSA_UW_D<br>VE_LOC_TYPE_<br>MASTER | Stage Life Style Activity<br>Underwater Dive<br>Location Type Master        | DIM_LSA_UW_DVE<br>_LOC_TYPE    | Life Style Activity<br>Underwater Dive<br>Location Type Dimension        |
| 546                     | STG_LSA_UWDI<br>VE_PUR_TYPE_<br>MASTER | Stage Life Style Activity<br>Underwater Dive<br>Purpose Type Master         | DIM_LSA_UWDIVE<br>_PUR_TYPE    | Life Style Activity<br>Underwater Dive<br>Purpose Type Dimension         |
| 547                     | STG_LSA_UWDV<br>NG_EQP_TYPE_<br>MASTER | Stage Life Style Activity<br>Underwater Diving<br>Equipment Type Master     | DIM_LSA_UWDVN<br>G_EQP_TYPE    | Life Style Activity<br>Underwater Diving<br>Equipment Type<br>Dimension  |
| 515                     | STG_LSA_MED_<br>CERTR_TYPE_M<br>ASTER  | Stage Life Style Activity<br>Medical Certificate<br>Restriction Type Master | DIM_LSA_MED_CE<br>RTR_TYPE     | Life Style Activity Medical<br>Certificate Restriction<br>Type Dimension |
| 548                     | STG_SEASON_T<br>YPE_MASTER             | Stage Season Type<br>Master   | DIM_SEASON_TYP<br>E            | Season Type Dimension  |
| 549                     | STG_TERRIAN_T<br>YPE_MASTER            | Stage Terrain Type<br>Master  | DIM_TERRIAN_TYP<br>E           | Terrain Type Dimension   |

### 17.3.5.2 **About Party Lifestyle Activity T2T (Result Table)**

Party Lifestyle Activity T2Ts and their description are given here.

| T2T Name                           | T2T Description  |
|------------------------------------|--|
| T2T_FCT_LIFESTYLE_ACTIVITY_DETAILS | This T2T stores the lifestyle activities details of a Party. This section captures details surrounding the activities a Party engages in, that may be considered risky by the Insurance Companies. |

| T2T Name                           | T2T Description   |
|------------------------------------|---|
| T2T_FCT_LSA_AIRCRAFT_DETAILS       | This T2T stores the aircraft model details, which is used to specify the details of the types of aircraft that apply to this Aviation experience. |
| T2T_FCT_LSA_AIRSPORTS_EXP_DETAILS  | This T2T stores the air sports experience details of a Party. It includes ballooning, hang gliding, parachuting and ultra lite experience.        |
| T2T_FCT_LSA_COMPETITION_DTLS       | This T2T stores the details of various life style activities competitions.  |
| T2T_FCT_LSA_FORGN_TRAVEL_EXP_DTLS  | This T2T stores foreign travel or foreign residence experience details of a Party.  |
| T2T_FCT_LSA_MILITARY_EXP_DETAILS   | This T2T stores the military experience details of a Party.   |
| T2T_FCT_LSA_RACING_EXPERIENCE_DTLS | This T2T stores the racing experience details of a Party.   |
| T2T_FCT_LSA_UW_DIVING_EXP_DETAILS  | This T2T stores the underwater-diving experience details of a Party.  |
| T2T_FCT_LSA_AVIATION_EXP_DETAILS   | This T2T stores aviation experience details of a Party that may be flying or operating of aircraft.   |
| T2T_FCT_LSA_CLIMIBING_EXP_DTLS     | This T2T stores the climbing experience details of a Party.   |

The mapping details for the Party Lifestyle Activity T2Ts are given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name  | Fact Table Name                        | Logical Fact Table<br>Name  | T2T Name                               |
|--|--|--|---|--|
| STG_LIFESTYL<br>E_ACTIVITY_D<br>ETAILS | Stage Lifestyle<br>Activity Details                                  | FCT_LIFESTYLE _ACTIVITY_DETA ILS       | Fact Lifestyle<br>Activity Details                                  | T2T_FCT_LIFESTYLE_ACTI<br>VITY_DETAILS |
| STG_LSA_AIR<br>CRAFT_DETAI<br>LS       | Stage Life Style<br>Activity Aircraft<br>Details                     | FCT_LSA_AIRCR<br>AFT_DETAILS           | Fact Life Style<br>Activity Aircraft<br>Details                     | T2T_FCT_LSA_AIRCRAFT_<br>DETAILS       |
| STG_LSA_AIR<br>SPORTS_EXP_<br>DETAILS  | Stage Life Style<br>Activity Airsports<br>Experience Details         | FCT_LSA_AIRSP<br>ORTS_EXP_DET<br>AILS  | Fact Life Style<br>Activity Airsports<br>Experience Details         | T2T_FCT_LSA_AIRSPORTS<br>_EXP_DETAILS  |
| STG_LSA_CO<br>MPETITION_D<br>TLS       | Stage Life Style<br>Activity Competition<br>Details                  | FCT_LSA_COMP<br>ETITION_DTLS           | Fact Life Style<br>Activity Competition<br>Details                  | T2T_FCT_LSA_COMPETITI<br>ON_DTLS       |
| STG_LSA_FOR<br>GN_TRAVEL_E<br>XP_DTLS  | Stage Life Style<br>Activity Foreign<br>Travel Experience<br>Details | FCT_LSA_FORG<br>N_TRAVEL_EXP_<br>DTLS  | Fact Life Style<br>Activity Foreign<br>Travel Experience<br>Details | T2T_FCT_LSA_FORGN_TR<br>AVEL_EXP_DTLS  |
| STG_LSA_MILI<br>TARY_EXP_DE<br>TAILS   | Stage Life Style<br>Activity Military<br>Experience Details          | FCT_LSA_MILITA<br>RY_EXP_DETAIL<br>S   | Fact Life Style<br>Activity Military<br>Experience Details          | T2T_FCT_LSA_MILITARY_E<br>XP_DETAILS   |
| STG_LSA_RAC<br>ING_EXPERIE<br>NCE_DTLS | Stage Life Style<br>Activity Racing<br>Experience Details            | FCT_LSA_RACIN<br>G_EXPERIENCE<br>_DTLS | Fact Life Style<br>Activity Racing<br>Experience Details            | T2T_FCT_LSA_RACING_EX<br>PERIENCE_DTLS |

| Source Table<br>Name                  | Logical Stage<br>Table Name   | Fact Table Name                       | Logical Fact Table<br>Name   | T2T Name                              |
|---------------------------------------|---|---------------------------------------|--|---------------------------------------|
| STG_LSA_UW_<br>DIVING_EXP_D<br>ETAILS | Stage Life Style<br>Activity Underwater<br>Diving Experience<br>Details | FCT_LSA_UW_DI<br>VING_EXP_DETA<br>ILS | Fact Life Style<br>Activity Underwater<br>Diving Experience<br>Details | T2T_FCT_LSA_UW_DIVING<br>_EXP_DETAILS |
| STG_LSA_AVI<br>ATION_EXP_D<br>ETAILS  | Stage Life Style<br>Activity Aviation<br>Experience Details             | FCT_LSA_AVIATI<br>ON_EXP_DETAIL<br>S  | Fact Life Style<br>Activity Aviation<br>Experience Details             | T2T_FCT_LSA_AVIATION_E<br>XP_DETAILS  |
| STG_LSA_CLI<br>MBING_EXP_D<br>TLS     | Stage Life Style<br>Activity Climbing<br>Experience Details             | FCT_LSA_CLIMBI<br>NG_EXP_DTLS         | Fact Life Style<br>Activity Climbing<br>Experience Details             | T2T_FCT_LSA_CLIMIBING_<br>EXP_DTLS    |

#### 17.4 **Deploying Insurance Underwriting Tables on Hive**

All RDBMS related Insurance Underwriting Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

### 17.5 **Populating Insurance Underwriting Dimension Tables**

Follow this SCD process to populate data into any Insurance Underwriting Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Insurance Underwriting Dimension table.

- 1. To populate data into any Insurance Underwriting Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Insurance Underwriting Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

### **Populating Insurance Underwriting T2T Result Tables** 17.6

Follow this T2T process to populate data into any Insurance Underwriting T2T Result table:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Insurance Underwriting T2T Result table.

- 1. To populate data into any Insurance Underwriting T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Insurance Underwriting Result tables, follow the procedure Check the Batch Execution Status of T2T.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

#### 18 **Insurance Contracts Tables**

This chapter provides information about Insurance Contracts tables such as Common Policy Summary tables, Reinsurance Contract Held tables, Reinsurance Contract Issued tables, other Reinsurance tables, Insurance Coverage tables, Insurance Policy and Fund tables, and Policy Schedules tables in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- How to Load Insurance Contracts in OIDF?
  - **Direct Insurance Contract Structure**
  - **Reinsurance Contracts**
- **Contract Tables** 
  - **Common Policy Summary Tables**
  - **Assumed Policy Summary Tables**
  - **Annuity Tables**
  - Long Duration Contracts Table
- **Coverage Tables** 
  - **Embedded Options Tables**
  - Riders and Coverage Options Tables
- **Insurance Participation Tables**
- Supplemental Data
  - **Group Beneficiary Tables**
  - Policy Schedules Table
  - Policy and Fund Tables
  - **Policy Loans Tables**
  - **Policy Conversion Table**
- **Reinsurance Contracts Tables**
- Deploying Insurance Contracts Tables on Hive
- Populating Insurance Contracts Dimension Tables
- Populating Insurance Contracts T2T Result Tables

Accounting standards defines insurance contract as a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

#### **How to Load Insurance Contracts in OIDF?** 18.1

#### 18.1.1 **Direct Insurance Contract Structure**

| Direct Insurance Contracts              |                       |   |                                       |                                 |  |                   |                                 |                                  |
|---|-----------------------|---|---------------------------------------|---------------------------------|--|-------------------|---------------------------------|----------------------------------|
| DIRECT<br>INSURANCE<br>CONTRACT<br>TYPE | Policy/<br>Contract   | Policy<br>Coverages                       | Participation<br>Details              | Group<br>Insurance              | Policy<br>Funds                              | Policy<br>Loans   | Policy<br>Conversions           | Policy<br>Schedule               |
| Entities                                | Product<br>Processors | Coverage,<br>Coverage<br>Basis<br>Details | Insurance<br>Participation<br>Details | Group<br>Beneficiary<br>Details | Policy<br>Fund,<br>Policy Fund<br>Allocation | Loan<br>Contracts | Policy<br>Conversion<br>Details | Insurance<br>Policy<br>Schedules |
| Applicability:                          | Although              |   |                                       |                                 |  |                   |                                 |                                  |
| Life                                    | Yes                   | Yes                                       | Yes                                   | Yes                             | Yes  | Yes               | Yes                             | Yes                              |
| Annuity                                 | Yes                   | Yes                                       | Yes                                   | NA                              | Yes  | Yes               | Yes                             | Yes                              |
| Health                                  | Yes                   | Yes                                       | Yes                                   | Yes                             | NA   | NA                | Yes                             | Yes                              |
| Property<br>and Casualty                | Yes                   | Yes                                       | Yes                                   | NA                              | NA   | NA                | NA                              | NA                               |
| Retirement                              | Yes                   | Yes                                       | Yes                                   | NA                              | Yes  | NA                | NA                              | NA                               |

This diagram elaborates the OIDF design for Direct Insurance Contracts. The base contract is loaded in the contract table, and coverages or riders are loaded to the coverages tables. One policy can contain more than one coverage. Depending on the applicability, a policy can consist of a fund associated with it and/or a loan associated with it.

To load an Insurance Contract in OIDF:

- 1. The key components in contract structure are Product, Party, and Contract itself. Under contract component, the user must choose one of the Product Processors from Life, Annuity, Property and Casualty, Retirement and Health.
- 2. Load Policy Coverages with Product Processor for multiple benefits or coverages.
- 3. Some contracts such as Annuity requires funds where market risk is with the policyholder. Load this information to Policy Funds. This is an optional step and is dependent on the product structure.
- 4. Some contracts specify adhoc or varying Policy Schedules such as Credit Life Insurance, varying premium policies etc., where sum insured and premium amounts vary depending on the outstanding debt or other criteria. In such cases, customer can choose to load Policy Schedules in Stage Policy Schedules.
- 5. In case of Group Insurance Contracts, the contract between the insurance provider and a company or group must be stored in either Life, Health, or applicable product processor. Stage Group Insurance Beneficiary Details holds details of each member such as individual limits, individual usage, and identifiers such as card numbers, annual and per condition deductibles.
- **6.** For loans issued under a given policy, load contracts into one of the Insurance product processor. and load every loan contract issued under a given policy to stage loan contracts. Refer to the section Policy Loans.
- 7. Contracts, which are convertible from one insurance product to another with or without changing the insurance carrier, require additional conversion details. For more details, refer to Policy Conversion.

In OIDF, Direct Insurance Contracts comprise of following important components:

- Contract
- Coverage
- Supplemental Data
- Policy and Funds
- **Policy Loans**
- **Policy Conversion**
- **Insurance Participation**
- Reinsurance

Party, which means beneficiary, producer and agent, underwriter etc., are expected to be created and available for reference in the Party set of tables based on the related role. For details, see Party Subject Area chapter.

#### 18.1.1.1 **Contract**

Contract attributes cover contract identifier, product identifier, sum insured, origination date, purchase date, maturity date, policy status etc. A group insurance contract must also be stored in one of the relevant tables mentioned below.

Contracts, as defined earlier, is a record in one of the following stage tables, called as a product processor comprising of a set of attributes relevant to a particular Insurance Contract. They are outputs sourced from policy administration systems.

This is the list of entities covered under Direct and Indirect Insurance, or Reinsurance Contracts to elaborate OIDF design for Insurance Contracts:

| Source Logical Table Name             | Source Table Name              |
|---------------------------------------|--------------------------------|
| Stage Annuity Contracts               | STG_ANNUITY_CONTRACTS          |
| Stage Health Insurance Contracts      | STG_HEALTH_INS_CONTRACTS       |
| Stage Life Insurance Contracts        | STG_LIFE_INS_CONTRACTS         |
| Stage Property and Casualty Contracts | STG_PROP_CASUALTY_CONTRACTS    |
| Stage Retirement Accounts             | STG_RETIREMENT_ACCOUNTS        |
| Stage Reinsurance Contracts Held      | STG_REINSURANCE_CONTRACTS_HELD |
| Stage Reinsurance Contracts Issued    | STG_REINSURANCE_CNTRCTS_ISSUED |

For the list of tables and the mapping details, see Contract Tables.

#### 18.1.1.2 Coverage

Coverage is an individual contractual obligation incurred by the contract provider. Aggregation of all such obligations within the terms and conditions defined must be equal to contractual liability of a contract. Consider these two examples:

A Life Insurance contract offering a normal death benefit, accidental death benefit and critical illness benefits to the insured.

An Auto Insurance policy with auto liability, medical payment liability, personal injury protection and third party liability.

In the above example, a single row is created in life insurance contract entity and property and casualty insurance contract entity. And the policy coverage entity stores three rows for life insurance contract and four rows for auto insurance contracts. In many insurance contracts, certain coverages, known as riders, are optional, and some are bundled as a part of contract itself. All such coverages must be stored in stage policy coverages. Different coverages may have effective dates having different maturity period and may have varying different terms and conditions limiting to the main contract. Stage Policy Coverage entity allows the end user to handle this flexibility. In case of group insurance, policy coverages refers to the single aggregated benefit or rider bundled as a part of product across all group members.

Riders or optional benefits must be loaded as coverages in Oracle Insurance Data Foundation. Coverage option or a component, which is dependent on the existence and continuation on another component and its effect/attributes is limited to a specific parent, then it must be modeled as a Coverage. Therefore, this relationship defines an association between the Coverage Option and its parent, where if the parent lapses or is no longer in effect for any reason, the Coverage Option under it also lapses/terminates/ends.

For the list of tables and mapping details, see Coverage Tables.

#### **Guaranteed Benefits and Embedded Options** 18.1.1.2.1

## **Guaranteed Benefits**

Guaranteed Benefits is a component of insurance policy or contract, which provides for either part of the full benefit amount is guaranteed by the Insurer.

Examples for illustration (These examples are not limited to this illustration):

- Scenario 1: On death during the policy term, the nominee receives a guaranteed lump sum payout with an option to convert it into monthly income for 10 years. On death of the Life Insured during the Policy Term, lump sum Death Benefit equal to Guaranteed Sum Assured on Death (GSAD) is payable to the nominee.
- Scenario 2: On retirement, the plan may pay out in monthly payments throughout the lifetime of the employee, or as a lump sum payment. If the employee dies, some plans distribute any remaining benefits to the beneficiaries of the employee.

# **Embedded Options**

An Embedded Option is a special condition attached to an Insurance Contract, which gives the policy holder or the issuer the right to perform a specified action at some point in the future. An Embedded Option is an inseparable part of an Insurance Contract, and therefore, it cannot trade by itself. However, it can affect the value of the Insurance Contract of which it is a component.

To separate an Embedded Option from Insurance Contract, the following conditions must be met:

- The economic characteristics and risks of the Embedded Option are not closely related to the economic characteristics and risks of the host (the remaining Insurance Contract).
- A separate instrument with the same terms as the Embedded Option meets the definition of an Option.
- The contract, which is not measured at fair value with changes in fair value recognized in profit or loss.

Examples for illustration (These examples are not limited to this illustration):

Example 1: A Death Benefit that is linked to equity prices payable only on death (and not on surrender or maturity), or the greater of the unit value of an investment and a guaranteed amount.

In this scenario, the existing benefit, which is Death Benefit option, is in the contract and is linked to the market. Therefore, Embedded Option is not separated and it falls under IFRS 17.

- Example 2: An option to take a Life-Contingent Annuity at a guaranteed rate.
   In this scenario, the existing benefit is given out as an additional benefit option to the contract in the form of Embedded Option. This benefit is not separated from the Insurance Contracts.
- Example 3: A minimum annuity payment, if the annuity payments are linked to the investment returns. Additionally, the guarantee is related only to Life-Contingent Payments, or the policyholder can choose to receive a Life-Contingent Payment or a fixed amount of payments at predetermined terms.

In this scenario, the minimum annuity payment, which is made by the insured is periodically linked to the investment returns of the contract with an additional benefit option to the contract as an Embedded Option. Therefore, it is not separated from the Insurance Contracts.

Both Guaranteed Benefits and Embedded Options must be loaded to stage policy coverages covering specific attributes such as Guarantee Type, Option Dates etc. For the list of tables and mapping details, see Embedded Options Tables.

# 18.1.1.3 Insurance Participation

When multiple carriers share the insurance risk, it is called as Insurance Participation. In OIDF, load the participation data to Stage Insurance Participation Details. In this participation entity, Contract Code refers to Insurance Contract.

For the list of tables and mapping details, see <u>Insurance Participation Tables</u>.

# 18.1.1.4 Supplemental Data

Supplemental Data refers to the additional and contextual information applicable to only certain specific insurance contracts. This consists of group insurance details, policy schedules, policy funds, policy loans and policy conversions.

## **18.1.1.4.1** Group Policies

A group insurance contract is one which is agreed between insurance company and entity which sponsors the policy. This contract must be stored in one of the seven product processors. However, in general stage life insurance and stage health insurance, contracts will be referred in most of the use cases of group insurance.

Details of members of group insurance are stored in stage group insurance beneficiary details. This entity holds details of each member such as individual limits, individual usage, and identifiers such as card numbers, annual and per condition deductibles. In cases where such details are not available, aggregated numbers must be loaded in main contract entities. For the list of tables and mapping details, see <a href="Group Beneficiary Tables">Group Beneficiary Tables</a>.

# 18.1.1.4.2 Policy Schedules

Policy Schedules refers to the agreed non-linear premium and benefit schedules associated with the insurance contracts. For the list of tables and mapping details, see <u>Policy Schedules Table</u>.

# 18.1.1.4.3 Policy and Funds

This holds investment of funds data of a given insurance contract where market risk of investment rests with Policyholder. There are two entities: policy fund details and policy fund allocation. Policy Funds provide funds-wise investment snapshot in time when policy fund allocation provide changes over time. When there is technically no restriction as these entities are connected by policy code to the main contract table, they are most commonly applicable to annuity contracts, life insurance contracts and retirement accounts. For the list of tables and mapping details, see Policy and Funds Tables.

#### 18.1.1.4.4 **Policy Loans**

Some insurance policies allow policyholders to borrow from policy accumulations in terms of loans as per terms and conditions laid in the contract. Such loans are considered as a contract by itself in OIDF and must be loaded in stage loan contracts. This entity holds policy identifiers to link multiple loans taken under a given insurance policy. For the list of tables and mapping details, see Policy Loans Tables.

#### 18.1.1.4.5 **Policy Conversion**

Policy Conversion refers to the privileged provisions provided in insurance contract whereby a policyholder to convert a term policy to a permanent policy that provides insurance for the rest of life.

For the list of tables and mapping details, see Policy Conversion Table.

#### 18.1.2 **Reinsurance Contracts**

Reinsurance contract refers to an insurance contract issued by one entity (the reinsurer) to compensate another entity for claims arising from one or more insurance contracts issued by that other entity (underlying insurance contracts). Reinsurance Contracts consists of two types of contracts:

- Reinsurance Contracts Issued: This is a contract entered into by a reinsurance company when they sell the reinsurance contract to an insurance company. Often, this is called as a reinsurance contract written by a specific reinsurer to differentiate between purchased and sold.
- Reinsurance Contracts Held: This is a contract entered into by an insurance company when they purchase reinsurance contract to mitigate the claims or losses.

## **Reinsurance Contracts Issued and Held**

Reinsurance Contracts Issued and Held are depicted through the following diagram.

| Reinsurance Contracts           |                                    |   |                                       |  |   |   |   |  |
|---------------------------------|------------------------------------|---|---------------------------------------|--|---|---|---|--|
| REINSURANCE<br>CONTRACT<br>TYPE | Policy/<br>Contract                | Policy<br>Coverages                       | Participation<br>Details              | Collateral<br>Placed   | Collateral<br>Received                                | Underlying<br>Contracts                                 | Contract Dimension  |  |
| Entities                        | Applicable<br>Product<br>Processor | Coverage,<br>Coverage<br>Basis<br>Details | Insurance<br>Participation<br>Details | Reinsurance<br>Issued Placed<br>Collateral Map<br>Placed<br>Collateral | Reinsurance<br>Held<br>Mitigants<br>Map,<br>Mitigants | Respective Direct Insurance Contract Product Processors | Key Contract Dimension<br>*Policy: On Books<br>*Assumed Policy: Not on<br>Books |  |
| Applicability                   |                                    |   |                                       |  |   |   |   |  |
| Reinsurance<br>Held             | Yes                                | Yes                                       | Yes                                   | NA   | Yes   | Life, Health,<br>P&C, Annuity,<br>Retirement            | Direct Contracts: Policy<br>Reinsurance Contract:<br>Policy                     |  |
| Reinsurance<br>Issued           | Yes                                | Yes                                       | Yes                                   | Yes  | NA  | Life, Health,<br>P&C, Annuity,<br>Retirement            | Direct Contract: Assumed<br>Policy<br>Reinsurance Contract:<br>Policy           |  |

For the list of tables and mapping details, see Reinsurance Contracts Tables.

# 18.1.2.1 Reinsurance Contracts

Reinsurance Contract structure consists of a set of entities, primarily Direct Contracts, Assumed Contracts, Reinsurance Contract, Collateral Placed, Collateral Received, Participation Contracts. This is the representative diagram of Reinsurance Contract and its entities.

|                               |  | Reinsurance Held                              |  |  |
|-------------------------------|--|---|--|--|
| Contract Type                 | Stage Entity                                   | Result Entity                                 | Key Contract Dimension                 | Differentiator                                   |
| Direct Written Policies       | Stage Life Insurance Contracts                 | Fact Common Policy Summary                    | Policy Dimension                       |  |
|                               | Stage Property and Casulaty Contracts          |   |  |  |
|                               | Stage Health insurance Contracts               |   |  | Direct Or Assumed Insurance Indicator = Direct   |
|                               | Stage Annuity Contracts                        |   |  | Direct Of Assumed Historatice Indicator - Direct |
|                               | Stage Retirement Contracts                     |   |  |  |
|                               | Stage Policy Coverages                         | Fact Policy Coverages                         | Coverage Dimension                     |  |
| Reinsurance Contract          | Stage Reinsurance Contract Held                | Fact Reinsurance Contract Held                | Policy Dimension                       |  |
|                               | Stage Reinsurance Held Mitigant Map            | Fact Reinsurance Held Mitigant Map            | Policy and Mitigant Dimension          |  |
| Participation Details         | Stage Insurance Participation Details          | Fact Insurance Participation Details          |  | 3  |
| Cash flow - Direct Policies   | Stage Insurance Policy Cash Flow               | Fact Insurance Policy Cash Flow               |  |  |
| Cash flow - RI Held           | Stage Insurance Policy Cash Flow               | Fact Insurance Policy Cash Flow               |  |  |
|                               |  | Reinsurance Issued                            |  | i.   |
|                               | Stage Entity                                   | Result Entity                                 | Key Contract Dimension                 | Differentiator                                   |
| Assumed Policies              | Stage Life Insurance Contracts                 | Fact Assumed Policy Summary                   | Assumed Policy Dimension               |  |
|                               | Stage Property and Casulaty Contracts          |   |  |  |
|                               | Stage Health insurance Contracts               |   |  | Direct Or Assumed Insurance Indicator =          |
|                               | Stage Annuity Contracts                        |   |  | Assumed  |
|                               | Stage Retirement Contracts                     |   |  |  |
|                               | Stage Policy Coverages                         | Fact Policy Coverages                         | Coverage Dimension                     |  |
| Reinsurance Contract          | Stage Reinsurance Contract Issued              | Fact Reinsurance Contract Issued              | Policy Dimension                       |  |
|                               | Stage Reinsurance Issued Placed Collateral Map | Fact Reinsurance Issued Placed Collateral Map | Policy and Placed Collateral Dimension |  |
| Participation Details         | Stage Insurance Participation Details          | Fact Insurance Participation Details          |  | 0  |
| Cash flow - Assumed Policies* | Stage Assumed Policy Cash Flow                 | Fact Assumed Policy Cash Flow                 |  |  |
| Cash flow - RI Issued         | Stage Insurance Policy Cash Flow               | Fact Insurance Policy Cash Flow               |  |  |

Reinsurance Contract entities are explained in the following sections.

# 18.1.2.1.1 Direct Insurance Contracts

In case of Reinsurance Held, Direct Insurance Contracts are those, which are on the books of insurance carrier and covered through given reinsurance contract. These Direct Contracts are loaded through same insurance contracts structure, as mentioned earlier. They are product processors for Life, Health, Annuity, Retirement, and Property and Casualty contracts. However, Direct and Assumed Indicator in each product processor must be marked as D to convey that they are on the books.

For the list of tables and mapping details, see Common Policy Summary Tables.

# 18.1.2.1.2 Assumed Insurance Contracts

In case of Reinsurance Issued, Reinsurance Contract is on the books of the carrier whereas insurance contracts covered belongs to another carrier. These underlying Insurance Contracts must be loaded through same insurance contracts structure as mentioned earlier. They are product processors for Life, Health, Annuity, Retirement, and Property and Casualty contracts. However, Direct and Assumed Indicator in each product processor must be marked as A to convey that they are not on the books and are assumed ones.

For the list of tables and mapping details, see <u>Assumed Policy Summary Tables</u>.

## 18.1.2.1.3 Reinsurance Contracts

Reinsurance Contracts, as mentioned above earlier, must be loaded to Stage Reinsurance Contracts Issued or Stage Reinsurance Contracts Held. Underlying Direct Insurance Contracts, which are on the book or marked as D for Direct in Direct/Assumed Indicator, are moved to Policy Dimension. In addition, those, which are not on the book or marked as A for Assumed in Direct/Assumed Indicator, are moved to Assumed Policy Dimension to differentiate contracts effectively.

For the list of tables and mapping details, see Reinsurance Contracts Tables.

#### 18.1.2.1.4 **Reinsurance Participation**

When multiple reinsurers come together to share the insurance risk, said contract becomes eligible for Reinsurance Participation. OIDF holds this data in Stage Insurance Contract Participation Details. In this participation entity, Contract Code refers to Reinsurance Contract.

For the list of tables and mapping details, see Insurance Participation Tables.

#### 18.1.2.1.5 Reinsurance Issued Placed Collateral

In case of reinsurance contracts Issued, reinsurance carrier provides the collateral to insurance companies for safety. This is called as Reinsurance Issued Placed Collateral. OIDF provides a map entity to map a given Reinsurance Contract and collateral placed. Actual investment contracts, which are placed as collateral can be loaded to investment product processors such as Stage Investment or Stage Money Market Contracts and/or Stage Placed Collateral depending on whether investment assets have been transferred as actual physical transfer or not.

For the list of tables and mapping details, see About Reinsurance Contracts T2Ts (Result Tables).

#### 18.1.2.1.6 **Reinsurance Held Mitigants**

In case of Reinsurance Contracts Held, insurance carrier holds the collateral provided by reinsurance companies for safety. This is called as Reinsurance Held Mitigants. OIDF provides a map entity to map a given reinsurance contract and collateral received or mitigants.

For the list of tables and mapping details, see About Reinsurance Contracts T2Ts (Result Tables).

#### 18.2 **Contract Tables**

#### 18.2.1 **Common Policy Summary Tables**

Common Policy Summary stores the detailed information elements of insurance policies directly written or issued by insurance company.

#### 18.2.1.1 **About Common Policy Summary Dimension Tables**

Common Policy Summary Dimension table name and its remarks is given here. Common Policy Summary is also a part of Policy Dimension table (DIM POLICY). For description about Policy Dimension, see the chapter Policy Dimension Table.

| Logical Dimension Table Name             | Remarks  |
|--|--|
| Policy Dimension                         | This table stores the list of all policies issued by the insurer.  |
| Insurance Notice Type Dimension          | This table stores the details of type of the notice sent. Sample values are OTHER, UNKNOWN, CONFIRM, PREM1, etc.                         |
| Insurance Sponsoring Plan Type Dimension | This table stores the type of sponsored benefit plan to which this holding belongs.  Sample values are OTHER, UNKNOWN, ESLTC, and SEWBP. |
| Policy Status Reason Dimension           | This table stores the details of policy reason for status.  Sample values are OTHER, UNKNOWN, APPEAL, APPDECLINE, BACKPROC, etc.         |

| Logical Dimension Table Name                | Remarks  |
|---|--|
| Policy Exchange Reason Dimension            | This table stores the Exchange Reason Code details. It is used only when a single exchange reason is required. For multiple reasons for the exchange, use Exchange Reason aggregate. Sample values: OTHER, UNKNOWN, BROKERSDIR, COMM, FEES, etc. |
| Policy Replacement Type Dimension           | This table stores the details of proposed policy replacement type and reflects in aggregate the replacement types of all existing contracts that will be replaced.  Sample values: OTHER, UNKNOWN, BOTH, EXTERNAL, FINPURCH, GROUPCONV, etc.     |
| Premium Offset Status Dimension             | This table stores the details about premium offset status. In situations where a Premium Offset Method is specified, this is the status of that method.  Sample values: REQACT, NONE, REQINACT, UNKNOWN, and OTHER.                              |
| Non Forfeiture Provision Type Dimension     | This table stores the details of Non Forfeiture Provision type. The various ways in which a policy owner may apply the cash value of a life insurance policy if the policy lapses.  Sample values: ANNRID, APLANNRID, APLEXTTERM, OTHER, etc.    |
| Insurance Test Type Dimension               | The table stores the details of life insurance test type. Sample values: CVTEST, DEFRACVTEST, GPTEST, and TEFRAGPEST.  |
| Tax Rebate Exchange Type Dimension          | This table stores the details of tax rebate exchange type. Sample values: IRREVOC, OTHER, REVOC, etc.  |
| Grandfathered Tax Regulation Type Dimension | This table stores the details of Grandfathered Tax Regulation Type, and specifies if a policy or contract are grandfathered under certain tax regulations. Sample values: DEFRA, ROTHIRA, TAMRA, NO, OTHER, and                                  |
|   | UNKNOWN.   |

The mapping details for the Common Policy Summary Dimension tables are given here. Common Policy Summary is also a part of Policy Dimension table (DIM\_POLICY). For mapping information about Policy Dimension, see the chapter Policy Dimension Table.

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage Table<br>Name                  | Dimension Table<br>Name | Logical Dimension Table Name |
|-------------------------|---------------------------------------|--|-------------------------|------------------------------|
| 224                     | STG_PROP_CASU<br>ALTY_CONTRACT<br>S_V | Stage Property<br>Casualty Contracts<br>View | DIM_POLICY              | Policy Dimension             |
| 401                     | STG_LIFE_INS_CO<br>NTRACTS_V          | Stage Life Insurance<br>Contracts View       | DIM_POLICY              | Policy Dimension             |
| 402                     | STG_HEALTH_INS<br>_CONTRACTS_V        | Stage Health Insurance<br>Contracts View     | DIM_POLICY              | Policy Dimension             |
| 403                     | STG_ANNUITY_CO<br>NTRACTS_V           | Stage Annuity<br>Contracts View              | DIM_POLICY              | Policy Dimension             |

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                          | Dimension Table             | Logical Dimension Table Name                      |
|-------------------------|--|--|-----------------------------|---|
| 634                     | STG_RETIREMENT<br>_ACCOUNTS_V          | Stage Retirement<br>Accounts View                    | DIM_POLICY                  | Policy Dimension                                  |
| 685                     | STG_INS_NOTICE_<br>TYPE_MASTER         | Stage Insurance Notice<br>Type Master                | DIM_INS_NOTICE_T<br>YPE     | Insurance Notice<br>Type Dimension                |
| 686                     | STG_INS_SPON_P<br>LAN_TYPE_MASTE<br>R  | Stage Insurance<br>Sponsoring Plan Type<br>Master    | DIM_INS_SPON_PL<br>AN_TYPE  | Insurance<br>Sponsoring Plan<br>Type Dimension    |
| 687                     | STG_POLICY_STA<br>TUS_RSN_MASTE<br>R   | Stage Policy Status<br>Reason Master                 | DIM_POLICY_STAT<br>US_RSN   | Policy Status<br>Reason Dimension                 |
| 691                     | STG_POL_EXCHA<br>NGE_REASON_MA<br>STER | Stage Policy Exchange<br>Reason Master               | DIM_POL_EXCHAN<br>GE_REASON | Policy Exchange<br>Reason Dimension               |
| 692                     | STG_POL_REPLAC<br>EMNT_TYPE_MAS<br>TER | Stage Policy<br>Replacement Type<br>Master           | DIM_POL_REPLACE<br>MNT_TYPE | Policy Replacement<br>Type Dimension              |
| 730                     | STG_PREM_OFFS<br>ET_STATUS_MAST<br>ER  | Stage Premium Offset<br>Status Master                | DIM_PREM_OFFSE<br>T_STATUS  | Premium Offset<br>Status Dimension                |
| 732                     | STG_NONFOREFT<br>_PROV_TYPE_MA<br>STER | Stage Non Forfeiture<br>Provision Type Master        | DIM_NONFOREFT_<br>PROV_TYPE | Non Forfeiture<br>Provision Type<br>Dimension     |
| 734                     | STG_INSURANCE_<br>TEST_TYPE_MAST<br>ER | Stage Insurance Test<br>Type Master                  | DIM_INSURANCE_T<br>EST_TYPE | Insurance Test Type<br>Dimension                  |
| 735                     | STG_TAX_REBATE<br>_EX_TYPE_MASTE<br>R  | Stage Tax Rebate<br>Exchange Type Master             | DIM_TAX_REBATE_<br>EX_TYPE  | Tax Rebate<br>Exchange Type<br>Dimension          |
| 736                     | STG_GF_TAX_RE<br>GLTN_TYPE_MAST<br>ER  | Stage Grandfathered<br>Tax Regulation Type<br>Master | DIM_GF_TAX_REGL<br>TN_TYPE  | Grandfathered Tax<br>Regulation Type<br>Dimension |

#### **About Common Policy Summary T2T (Result Table)** 18.2.1.2

NOTE

In the Fact Common Policy Summary tables, if the value of V\_DIRECT\_ASSUMED\_RI\_IND is D or NULL or any other value apart from A, then Fact Common Policy Summary T2Ts are populated. Here, D is Direct Contracts, and A is Assumed Contracts.

Common Policy Summary T2Ts and their description are given here.

| T2T Name                                 | T2T Description   |
|--|---|
| T2T_FCPS_STG_ANNUITY_CONTRACTS           | This T2T captures the details of annuity contracts, which are defined as a written agreement between a financial institution and a customer outlining obligations of each Party in an annuity coverage agreement. |
| T2T_FCPS_STG_HEALTH_INS_CONTRACTS        | This T2T stores details of policy related to health insurance contracts.  |
| T2T_FCPS_STG_LIFE_INS_CONTRACTS          | This T2T stores details of policy related to life insurance contracts.  |
| T2T_FCPS_STG_PROP_CASUALTY_CONTR<br>ACTS | This T2T stores details of policy related to property and casualty contracts.   |
| T2T_FCPS_STG_RETIREMENT_ACCOUNTS         | This T2T stores details of policy related to retirement accounts.   |

Common Policy Summary T2Ts and their description are given here.

| Source Table<br>Name                | Logical Stage<br>Table Name            | Fact Table Name               | Logical Fact<br>Table Name    | T2T Name                                 |
|-------------------------------------|--|-------------------------------|-------------------------------|--|
| STG_ANNUITY_<br>CONTRACTS           | Stage Annuity<br>Contracts             | FCT_COMMON_PO<br>LICY_SUMMARY | Fact Common<br>Policy Summary | T2T_FCPS_STG_ANNUIT<br>Y_CONTRACTS       |
| STG_HEALTH_IN<br>S_CONTRACTS        | Stage Health<br>Insurance<br>Contracts | FCT_COMMON_PO<br>LICY_SUMMARY | Fact Common<br>Policy Summary | T2T_FCPS_STG_HEALTH<br>_INS_CONTRACTS    |
| STG_LIFE_INS_<br>CONTRACTS          | Stage Life<br>Insurance<br>Contracts   | FCT_COMMON_PO<br>LICY_SUMMARY | Fact Common<br>Policy Summary | T2T_FCPS_STG_LIFE_IN<br>S_CONTRACTS      |
| STG_PROP_CAS<br>UALTY_CONTRA<br>CTS | Stage Property<br>Casualty Contracts   | FCT_COMMON_PO<br>LICY_SUMMARY | Fact Common<br>Policy Summary | T2T_FCPS_STG_PROP_C<br>ASUALTY_CONTRACTS |
| STG_RETIREME<br>NT_ACCOUNTS         | Stage Retirement<br>Accounts           | FCT_COMMON_PO<br>LICY_SUMMARY | Fact Common<br>Policy Summary | T2T_FCPS_STG_RETIRE<br>MENT_ACCOUNTS     |

# 18.2.2 Assumed Policy Summary Tables

Assumed Policy Summary stores the detailed information elements of insurance policies that are not directly written or issued by the insurance company. In the Contracts table, if the value of Direct Assumed Indicator column is A, then Fact Assumed Policy Summary tables are populated.

NOTE

In the Contracts tables, if the value of V\_DIRECT\_ASSUMED\_RI\_IND is A, then Fact Assumed Policy Summary T2Ts are populated. Here, A is Assumed Contracts.

# 18.2.2.1 About Assumed Policy Summary Dimension Tables

Assumed Policy Summary Dimension table name and its remarks are given here. Assumed Policy Summary is also a part of Assumed Policy Dimension table (DIM\_ASSUMED\_POLICY).

| Logical Dimension Table Name | Remarks                                       |
|------------------------------|---|
| Assumed Policy Dimension     | This table stores the assumed policy details. |

The mapping details for the Assumed Policy Summary Dimension tables are given here. Assumed Policy Summary is also a part of Assumed Policy Dimension table (DIM\_ASSUMED\_POLICY).

| Map Reference | Source Table                           | Logical Stage Table                          | Dimension Table        | Logical Dimension Table Name |
|---------------|--|--|------------------------|------------------------------|
| Number        | Name                                   | Name   | Name                   |                              |
| 616           | VW_STG_LIFE_INS                        | Stage Life Insurance                         | DIM_ASSUMED_PO         | Assumed Policy               |
|               | _CONTRACTS                             | Contracts View                               | LICY                   | Dimension                    |
| 617           | VW_STG_HEALTH                          | Stage Health Insurance                       | DIM_ASSUMED_PO         | Assumed Policy               |
|               | _INS_CONTRACTS                         | Contracts View                               | LICY                   | Dimension                    |
| 618           | VW_STG_ANNUITY                         | Stage Annuity                                | DIM_ASSUMED_PO         | Assumed Policy               |
|               | _CONTRACTS                             | Contracts View                               | LICY                   | Dimension                    |
| 619           | VW_STG_RETIRE                          | Stage Retirement                             | DIM_ASSUMED_PO         | Assumed Policy               |
|               | MENT_ACCOUNTS                          | Accounts View                                | LICY                   | Dimension                    |
| 620           | VW_STG_PROP_C<br>ASUALTY_CONTR<br>ACTS | Stage Property<br>Casualty Contracts<br>View | DIM_ASSUMED_PO<br>LICY | Assumed Policy<br>Dimension  |

#### 18.2.2.2 **About Assumed Policy Summary T2Ts (Result Tables)**

Assumed Policy Summary T2Ts and their description are given here.

| T2T Name                                 | T2T Description  |
|--|--|
| T2T_FAPS_STG_ANNUITY_CONTRACTS           | This T2T stores annuity contracts details, which are defined as a written agreement between a financial institution and a customer outlining the obligations of each Party in an annuity coverage agreement. |
| T2T_FAPS_STG_HEALTH_INS_CONTRACTS        | This T2T stores details of policy related to health insurance contracts.   |
| T2T_FAPS_STG_LIFE_INS_CONTRACTS          | This T2T stores the details of policy related to life insurance contracts.   |
| T2T_FAPS_STG_PROP_CASUALTY_CONTR<br>ACTS | This T2T stores details of policy related to property and casualty contracts.  |
| T2T_FAPS_STG_RETIREMENT_ACCOUNTS         | This T2T stores investment details of retirement savings, which is used by individuals to earn and earmark funds.  |

Assumed Policy Summary T2Ts and their description are given here.

| Source Table<br>Name                | Logical Stage<br>Table Name            | Fact Table Name                | Logical Fact<br>Table Name     | T2T Name                                 |
|-------------------------------------|--|--------------------------------|--------------------------------|--|
| STG_ANNUITY_<br>CONTRACTS           | Stage Annuity<br>Contracts             | FCT_ASSUMED_P<br>OLICY_SUMMARY | Fact Assumed Policy Summary    | T2T_FAPS_STG_ANNUIT<br>Y_CONTRACTS       |
| STG_HEALTH_IN<br>S_CONTRACTS        | Stage Health<br>Insurance<br>Contracts | FCT_ASSUMED_P<br>OLICY_SUMMARY | Fact Assumed<br>Policy Summary | T2T_FAPS_STG_HEALTH<br>_INS_CONTRACTS    |
| STG_LIFE_INS_<br>CONTRACTS          | Stage Life<br>Insurance<br>Contracts   | FCT_ASSUMED_P<br>OLICY_SUMMARY | Fact Assumed<br>Policy Summary | T2T_FAPS_STG_LIFE_IN<br>S_CONTRACTS      |
| STG_PROP_CAS<br>UALTY_CONTRA<br>CTS | Stage Property<br>Casualty Contracts   | FCT_ASSUMED_P<br>OLICY_SUMMARY | Fact Assumed<br>Policy Summary | T2T_FAPS_STG_PROP_C<br>ASUALTY_CONTRACTS |
| STG_RETIREME<br>NT_ACCOUNTS         | Stage Retirement Accounts              | FCT_ASSUMED_P<br>OLICY_SUMMARY | Fact Assumed Policy Summary    | T2T_FAPS_STG_RETIRE<br>MENT_ACCOUNTS     |

#### 18.2.3 **Annuity Tables**

Annuity tables store the details of annuity contracts, which are defined as a written agreement between a financial institution and a customer outlining obligations of each Party in an annuity coverage agreement.

#### **About Annuity Dimension Tables** 18.2.3.1

Annuity Dimension table names and their remarks are given here.

| Logical Dimension Table Name  | Remarks  |
|-------------------------------|--|
| Annuity Payout Type Dimension | This table stores the details of annuity payout type. Sample values: FIX, VAR, etc.                  |
| Annuity Type Dimension        | This table stores the details of annuity type for the policies. Sample values: LOA, LAPC, LAGT, JSA. |

The mapping details for the Annuity Dimension tables are given here.

| Map Reference<br>Number | Source Table Name                      | Logical Stage Table<br>Name         | Dimension Table             | Logical Dimension Table Name     |
|-------------------------|--|-------------------------------------|-----------------------------|----------------------------------|
| 702                     | STG_ANNUITY_PA<br>YOUT_TYPE_MAS<br>TER | Stage Annuity Payout<br>Type Master | DIM_ANNUITY_PAY<br>OUT_TYPE | Annuity Payout<br>Type Dimension |
| 703                     | STG_ANNUITY_TY<br>PE_MASTER            | Stage Annuity Type<br>Master        | DIM_ANNUITY_TYP<br>E        | Annuity Type<br>Dimension        |

#### 18.2.4 **Long Duration Contracts Table**

Long Duration Contracts (principally life and annuity contracts) table stores the calculation of the liability of future policy benefits, a simplified amortization method for deferred acquisition costs, recording market risk benefits at fair value, and enhanced disclosures.

#### 18.2.4.1 **About Long Duration Contracts Dimension Table**

Long Duration Contracts Dimension table name and its remarks are given here.

| Logical Dimension Table Name       | Remarks  |
|------------------------------------|--|
| Insurance Guarantee Type Dimension | This table stores the details of Insurance guarantee type. |

The mapping details for the Long Duration Contracts Dimension table are given here.

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage Table<br>Name              | Dimension Table            | Logical Dimension Table Name             |
|-------------------------|---------------------------------------|--|----------------------------|--|
| 701                     | STG_INS_GUARAN<br>TEE_TYPE_MASTE<br>R | Stage Insurance<br>Guarantee Type Master | DIM_INS_GUARANT<br>EE_TYPE | Insurance<br>Guarantee Type<br>Dimension |

#### 18.3 **Coverage Tables**

The Policy Coverage table stores the list of all coverages and amounts set by the Insurer.

#### 18.3.1 **About Policy Coverage Dimension Tables**

Policy Coverage Dimension table names and their remarks are given here.

| Logical Dimension Table Name           | Remarks  |
|--|--|
| Insurance Age Amount Product Dimension | This table stores the details of insurance age amount product code. This table is used to define any age ranges supported, and minimum or maximum amounts, units or percentages that are available for that particular age range. The minimum and maximum ages represented in the collection of Age Amount Products at this level must follow certain defined rules. |
| Age Amount Product Measure Dimension   | This table stores the details of Age Amount Product Measures.  |

The mapping details for the Policy Coverage Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                   | Dimension Table<br>Name     | Logical Dimension Table Name                 |
|-------------------------|--|---|-----------------------------|--|
| 727                     | STG_INS_AGE_AM<br>T_PRODUCT_MAS<br>TER | Stage Insurance Age<br>Amount Product Master  | DIM_INS_AGE_AMT<br>_PRODUCT | Insurance Age<br>Amount Product<br>Dimension |
| 728                     | STG_AGE_AMT_P<br>ROD_MESR_MAST<br>ER   | Stage Age Amount<br>Product Measure<br>Master | DIM_AGE_AMT_PR<br>OD_MESR   | Age Amount<br>Product Measure<br>Dimension   |

## **About Policy Coverage T2T (Result Table)** 18.3.2

Policy Coverage T2Ts and their description are given here.

| T2T Name                          | T2T Description   |
|-----------------------------------|---|
| T2T_FCT_POLICY_COVERAGES          | This T2T stores policy coverages details. A policy can have multiple coverages.   |
| T2T_FCT_POLICY_COVERG_BASIS_DTL   | This T2T stores the coverage basis value for a given policy.  |
| T2T_FCT_INS_AGE_AMT_PRODUCT_DEF   | This T2T stores the details of Insurance Age Amount Product. This table is used to define any age ranges supported, and minimum or maximum amounts, units or percentages that are available for that particular age range. The minimum and maximum ages represented in the collection of Age Amount Products at this level must follow certain defined rules. |
| T2T_FCT_INS_AGE_AMT_PRODUCT_TABLE | This table stores the details of Insurance Age Amount Product. This table is used to define any age ranges supported, and minimum or maximum amounts, units or percentages that are available for that particular age range. This table hold the values defined as per the insurance age amount product definition table.                                     |

The mapping details for the Policy Coverage T2Ts are given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                         | Fact Table Name                       | Logical Fact<br>Table Name                         | T2T Name                              |
|---------------------------------------|---|---------------------------------------|--|---------------------------------------|
| STG_POLICY_C<br>OVERAGES              | Stage Policy<br>Coverages                           | FCT_POLICY_CO<br>VERAGES              | Fact Policy<br>Coverages                           | T2T_FCT_POLICY_COV<br>ERAGES          |
| STG_POLICY_C<br>OVERG_BASIS_<br>DTL   | Stage Policy<br>Coverage Basis<br>Detail            | FCT_POLICY_CO<br>VERG_BASIS_DTL       | Fact Policy<br>Coverage Basis<br>Detail            | T2T_FCT_POLICY_COV<br>ERG_BASIS_DTL   |
| STG_INS_AGE_A<br>MT_PRODUCT_D<br>EF   | Stage Insurance<br>Age Amount Product<br>Definition | FCT_INS_AGE_A<br>MT_PRODUCT_D<br>EF   | Fact Insurance Age<br>Amount Product<br>Definition | T2T_FCT_INS_AGE_AM<br>T_PRODUCT_DEF   |
| STG_INS_AGE_A<br>MT_PRODUCT_T<br>ABLE | Stage Insurance<br>Age Amount Product<br>Table      | FCT_INS_AGE_A<br>MT_PRODUCT_TA<br>BLE | Fact Insurance Age<br>Amount Product<br>Table      | T2T_FCT_INS_AGE_AM<br>T_PRODUCT_TABLE |

#### 18.3.3 **Embedded Options Tables**

#### 18.3.3.1 **About Embedded Options T2T (Result Table)**

Embedded Options T2T and its description is given here.

| T2T Name                              | T2T Description   |
|---------------------------------------|---|
| T2T_FCT_EMBEDDED_OPTIONS_SCHEDUL<br>E | This T2T stores the details of schedule embedded options of interest rate instruments. An embedded option is an inseparable part of another instrument and does not trade on its own. |

The mapping details for the Embedded Options T2T is given here.

| Source Table<br>Name                  | Logical Stage Table Name           | Fact Table Name                       | Logical Fact Table<br>Name        | T2T Name                                  |
|---------------------------------------|------------------------------------|---------------------------------------|-----------------------------------|---|
| STG_EMBEDDED<br>_OPTIONS_SCHE<br>DULE | Stage Embedded<br>Options Schedule | FCT_EMBEDDED_O<br>PTIONS_SCHEDUL<br>E | Fact Embedded<br>Options Schedule | T2T_FCT_EMBEDDE<br>D_OPTIONS_SCHE<br>DULE |

#### **Insurance Participation Tables** 18.4

#### **Using Stage Party Insurance Policy Role Map T2T (Result Table)** 18.4.1

NOTE Load STG\_PARTY\_INS\_POLICY\_ROLE\_MAP with all customer records and Party Role must be 'CUSTOMER'.

The Party Insurance Policy Role Map table stores information related to different policies that are taken by a Party.

The mapping details to populate the Party Insurance Policy Role Map T2T is given here.

| Source Table<br>Name                  | Logical Stage Table<br>Name                 | Fact Table Name                   | Logical Fact Table<br>Name              | T2T Name                                  |
|---------------------------------------|---|-----------------------------------|---|---|
| STG_PARTY_IN<br>S_POLICY_ROL<br>E_MAP | Stage Party<br>Insurance Policy Role<br>Map | FCT_PARTY_INS_P<br>OLICY_ROLE_MAP | Fact Party Insurance<br>Policy Role Map | T2T_FCT_PARTY_IN<br>S_POLICY_ROLE_MA<br>P |

#### 18.4.2 **About Insurance Participation T2T (Result Table)**

Insurance Participation T2T and its description is given here.

| T2T Name                        | T2T Description  |
|---------------------------------|--|
| T2T_FCT_INSURANCE_PARTCPTN_DTLS | This T2T stores the details of multiple insurers who come together to provide reinsurance to Insurance Company. Their respective details of sharing and participation is stored in this table. |

The mapping details for the Insurance Participation T2T is given here.

| Source Table<br>Name                | Logical Stage<br>Table Name                 | Fact Table Name                     | Logical Fact<br>Table Name                 | T2T Name                            |
|-------------------------------------|---|-------------------------------------|--|-------------------------------------|
| STG_INSURANC<br>E_PARTCPTN_D<br>TLS | Stage Insurance<br>Participation<br>Details | FCT_INSURANCE<br>_PARTCPTN_DTL<br>S | Fact Insurance<br>Participation<br>Details | T2T_FCT_INSURANCE_<br>PARTCPTN_DTLS |

# 18.5 Supplemental Data

Supplemental Data refers to the additional and contextual information applicable to only certain insurance contracts. This consists of primarily two information sets namely group insurance details and policy schedules.

# 18.5.1 Group Beneficiary Tables

Group Insurance refers to insurance that covers a defined group of people, such as employees of a company or members of a particular profession, typically against illness or death.

# 18.5.1.1 About Group Beneficiary Dimension Table

Group Beneficiary Dimension table names and their remarks are given here.

| Logical Dimension Table Name | Remarks                                |
|------------------------------|--|
| Beneficiary Dimension        | This table stores beneficiary details. |

The mapping details for the Reinsurance Contracts Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name | Logical Stage<br>Table Name | Dimension Table<br>Name | Logical Dimension Table Name |
|-------------------------|----------------------|-----------------------------|-------------------------|------------------------------|
| 672                     | STG_PARTY_MAS<br>TER | Stage Party Master          | DIM_BENEFICIARY         | Beneficiary Dimension        |

# 18.5.1.2 About Group Policy Beneficiary T2T (Result Table)

Group Policy Beneficiary T2T and its description is given here.

| T2T Name                          | T2T Description   |
|-----------------------------------|---|
| T2T_FCT_GRPINS_POL_BENFCIARY_DTLS | This T2T stores group insurance policy beneficiary details. |

The mapping details for the Group Policy Beneficiary T2T is given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                      | Fact Table Name                       | Logical Fact<br>Table Name                      | T2T Name                              |
|---------------------------------------|--|---------------------------------------|---|---------------------------------------|
| STG_GRPINS_P<br>OL_BENFCIARY_<br>DTLS | Stage Groupings<br>Policy Beneficiary<br>Details | FCT_GRPINS_PO<br>L_BENFCIARY_D<br>TLS | Fact Groupings<br>Policy Beneficiary<br>Details | T2T_FCT_GRPINS_POL<br>_BENFCIARY_DTLS |

#### 18.5.2 **Policy Schedules Table**

Policy Schedules refers to the agreed non-linear premium and benefit schedules associated with the insurance contracts. For example, step up Annuity Contracts, and Term Life Insurance, where benefits are increasing or decreasing with remaining term of contract. Agreed schedules can be stored in this entity.

#### 18.5.2.1 **About Policy Schedules T2T (Result Table)**

Policy Schedules T2T and its description is given here.

| T2T Name                 | T2T Description   |
|--------------------------|---|
| T2T_FCT_POLICY_SCHEDULES | This T2T stores the details of policy schedules. Policy Schedules refer to the premium and sum insured for each policy year until policy maturity. This is used in case of increasing or decreasing the benefit or Premium payments associated with a policy. |

The mapping details for the Policy Schedules T2T is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact<br>Table Name | T2T Name           |
|----------------------|-----------------------------|-----------------|----------------------------|--------------------|
| STG_POLICY_S         | Stage Policy                | FCT_POLICY_SC   | Fact Policy                | T2T_FCT_POLICY_SCH |
| CHEDULES             | Schedules                   | HEDULES         | Schedules                  | EDULES             |

#### 18.5.3 **Policy and Funds Tables**

Policy Funds refers to the investment made by policyholder as part of insurance contract and significant market risk is borne by policyholder.

#### 18.5.3.1 **About Policy and Funds T2T (Result Table)**

Policy and Funds T2Ts and their description are given here.

| T2T Name                       | T2T Description  |
|--------------------------------|--|
| T2T_FCT_POLICY_FUNDS           | This T2T stores the policy wise fund details. This covers units invested for each fund, total amount invested (current value of investment as of today), etc.  |
| T2T_FCT_POLICY_FUND_ALLOCATION | This T2T stores the investment allocation for a given policy, fund and investment bucket combination. Investment amount is allocated to different funds and during different time period, which is stored in this entity. This covers premium amount invested in each bucket, running total premium, and cash surrender value for each bucket. |

The mapping details for the Policy and Funds T2Ts are given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table<br>Name | T2T Name          |
|----------------------|-----------------------------|-----------------|----------------------------|-------------------|
| STG_POLICY_FUN       | Stage Policy                | FCT_POLICY_FU   | Fact Policy Funds          | T2T_FCT_POLICY_FU |
| DS                   | Funds                       | NDS             |                            | NDS               |
| STG_POLICY_FUN       | Stage Policy Fund           | FCT_POLICY_FU   | Fact Policy Fund           | T2T_FCT_POLICY_FU |
| D_ALLOCATION         | Allocation                  | ND_ALLOCATION   | Allocation                 | ND_ALLOCATION     |

#### 18.5.4 **Policy Loans Tables**

Some insurance policies allow policyholders to take the loans based on amount accumulated till date as per terms and conditions laid in the contract. Such loans are considered as a contract by itself in OIDF and must be loaded in stage loan contracts. This entity holds policy identifiers to link multiple loans taken under a given insurance policy.

Network of loan entities cover Stage Loan Contracts, Stage Mitigants, Stage Account Mitigant Map, Stage Account Write off Details, Stage Account Recovery details.

#### 18.5.4.1 **About Policy Loans T2T (Result Table)**

Policy Loans T2T and its description is given here.

| T2T Name                    | T2T Description  |
|-----------------------------|--|
| T2T_FLAS_STG_LOAN_CONTRACTS | This T2T stores the details of loans. This table includes mortgage, and vehicle loans. |
| T2T_STG_LOANS_CAS           | This T2T stores the details of loans lent by the Insurance Company to its customers.   |

The mapping details for the Policy Loans is given here.

| Source Table<br>Name   | Logical Stage<br>Table Name | Fact Table Name                    | Logical Fact Table<br>Name     | T2T Name                        |
|------------------------|-----------------------------|------------------------------------|--------------------------------|---------------------------------|
| STG_LOAN_CON<br>TRACTS | Stage Loan<br>Contracts     | FCT_LOAN_ACCO<br>UNT_SUMMARY       | Fact Loan Account<br>Summary   | T2T_FLAS_STG_LOAN_<br>CONTRACTS |
| STG_LOAN_CON<br>TRACTS | Stage Loan<br>Contracts     | FCT_COMMON_A<br>CCOUNT_SUMMA<br>RY | Fact Common<br>Account Summary | T2T_STG_LOANS_CAS               |

#### **Policy Conversion Table** 18.5.5

This table is used to store the policy details when converting one policy to another. The policy can be converted from one to multiple policies or multiple to one policy. An insurance policy with this type of provision allows the insured to switch to a different type of policy.

#### 18.5.5.1 **About Policy Conversion T2T (Result Table)**

Policy Conversion T2T and its description is given here.

| T2T Name                          | T2T Description   |
|-----------------------------------|---|
| T2T_FCT_POLICY_CONVERSION_DETAILS | This T2T stores the details of conversion policies. If the policy is converted from one to multiple, or vice versa. |

Policy Conversion T2T and its description is given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name        | Fact Table Name                       | Logical Fact<br>Table Name           | T2T Name                              |
|---------------------------------------|------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|
| STG_POLICY_C<br>ONVERSION_DE<br>TAILS | Stage Policy<br>Conversion Details | FCT_POLICY_CON<br>VERSION_DETAIL<br>S | Fact Policy<br>Conversion<br>Details | T2T_FCT_POLICY_CONV<br>ERSION_DETAILS |

#### 18.6 **Reinsurance Contracts Tables**

A reinsurance contract is defined as an insurance contract issued by one entity (the reinsurer) to compensate another entity for claims arising from one or more insurance contracts issued by that other entity. The requirements for the assessment of significant insurance risk in a reinsurance contract are the same as for an insurance contract. However, a reinsurance contract transfers significant insurance risk if it transfers substantially all of the insurance risk resulting from the insured portion of the underlying insurance contract, even if it does not expose the reinsurer to the possibility of a significant loss.

#### 18.6.1 **About Reinsurance Contracts Dimension Tables**

Reinsurance Contracts Dimension table names and their remarks are given here.

| Logical Dimension Table Name                               | Remarks   |
|--|---|
| Insurance Reserve Function Method Dimension                | This table stores the method used to calculate reserves and defines the mortality function used to calculate reserves and net premium for valuation.  Sample values: OTHER, UNKNOWN, RESERVFUNCFCL, RESERVFUNCFUL.  |
| Consequence Of Loss Dimension                              | This table stores the code that identifies consequences of losses. Sample values: Acid burns, Amputation, Blindness, etc.   |
| Tax Reimbursement Calculation Method Dimension             | This table stores the Tax Reimbursement Calculation Method Code details and the information about the method for calculating the portion of the Premium Taxes reimbursed to the direct insurer. Sample values: OTHER, UNKNOWN, REINPREMTXRM12.                          |
| Insurance Reserve Calculation Basis<br>Dimension           | This table stores the Insurance Reserve Calculation Basis Code details, in which, basis is used in calculating the standard GAAP reserve.  Sample value: OTHER.   |
| Reinsurance Contract Type Dimension                        | This table stores the Reinsurance Contract Type details. Sample values: DIP is Direct Insurance Policy, RC is Reinsurance Contract, FC is Facultative Contract, etc.  |
| Insurance Sub Standard Policy Reserve Method Dimension     | This table stores the Insurance Sub Standard Policy Reserve Method Code details, a code list from Life Reinsurance Activity Report LREACT UGP, UPP, etc. Describes the actuarial methodology used to calculate the substandard policy reserves. For example, Net Level. |
| Reinsurance Accounting Basis Dimension                     | This table stores the Reinsurance accounting basis details, which specifies the basis of accounting for the contract. Sample values: Accident Year, Accounting Year, Calendar Year, Underwriting Year, etc.   |
| Insurance Reserve Calculation Method Dimension             | This table stores the information about the reserves calculation method on this coverage and is used by valuation programs to find the correct reserves for this coverage.  Sample values: OTHER, UNKNOWN, RESVMETHYT is 1 or 5 Year Preliminary Term.                  |
| Insurance Sub Standard Reserve Calculation Basis Dimension | This table stores the Insurance Sub Standard Reserve Calculation Basis Code details. The substandard GAAP reserve factor is applied to the amount indicated to calculate the substandard GAAP reserve amount.  Sample values: OTHER, UNKNOWN, etc.                      |
| Contract Limit Retention Basis Dimension                   | This table stores the code identification details of the basis of the contract limits and retentions applicable to the claim that is reported.  Sample values: Per accident, Per event, Per occurrence, Per location, etc.  |
| Insurance Reserve Valuation Type Dimension                 | This table stores Reserve Valuation Type details. Sample values: OTHER, UNKNOWN, RESVALTPCAM is Canadian Modified CANMOD, etc.  |
| Insurance Retention Level Type Dimension                   | This table stores the Insurance Retention Level Type details and the level of retention on the coverage.  Sample values: OTHER, UNKNOWN, RETNLEVRNF is Full proportional, RETNLEVRFR is Full retention, etc.  |
| Reinsurance Business Origin Dimension                      | This table stores the Reinsurance Business Origin Code details, in which, codes specify whether the contract was directly or  |

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
|                              | indirectly ceded. Sample values: Cession, Retrocession, Coinsurance, Direct insurance. |
| Policy Dimension             | This table stores the list of all policies issued by the insurer.                      |

The mapping details for the Reinsurance Contracts Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name  | Dimension Table<br>Name     | Logical Dimension Table Name  |
|-------------------------|--|--|-----------------------------|---|
| 621                     | STG_INS_RES_FU<br>NC_MTHD_MASTE<br>R   | Stage Insurance<br>Reserve Function<br>Method Master                   | DIM_INS_RES_FUN<br>C_MTHD   | Insurance Reserve<br>Function Method<br>Dimension                   |
| 622                     | STG_CONSEQUEN<br>CE_OF_LOSS_MA<br>STER | Stage Consequence<br>Of Loss Master                                    | DIM_CONSEQUENC<br>E_OF_LOSS | Consequence Of Loss<br>Dimension                                    |
| 623                     | STG_TAX_REIMB_<br>CAL_MTHD_MAST<br>ER  | Stage Tax<br>Reimbursement<br>Calculation Method<br>Master             | DIM_TAX_REIMB_C<br>AL_MTHD  | Tax Reimbursement<br>Calculation Method<br>Dimension                |
| 624                     | STG_INS_RES_CA<br>L_BASIS_MASTER       | Stage Insurance<br>Reserve Calculation<br>Basis Master                 | DIM_INS_RES_CAL<br>_BASIS   | Insurance Reserve<br>Calculation Basis<br>Dimension                 |
| 625                     | STG_RI_CONTRAC<br>T_TYPE_MASTER        | Stage Reinsurance<br>Contract Type Master                              | DIM_RI_CONTRACT<br>_TYPE    | Reinsurance Contract<br>Type Dimension                              |
| 626                     | STG_INS_SS_POL<br>_RES_MTHD_MAS<br>TER | Stage Insurance Sub<br>Standard Policy<br>Reserve Method<br>Master     | DIM_INS_SS_POL_<br>RES_MTHD | Insurance Sub<br>Standard Policy<br>Reserve Method<br>Dimension     |
| 627                     | STG_RI_ACCOUNT<br>ING_BASIS_MAST<br>ER | Stage Reinsurance<br>Accounting Basis<br>Master                        | DIM_RI_ACCOUNTI<br>NG_BASIS | Reinsurance<br>Accounting Basis<br>Dimension                        |
| 628                     | STG_INS_RES_CA<br>L_MTHD_MASTER        | Stage Insurance<br>Reserve Calculation<br>Method Master                | DIM_INS_RES_CAL<br>_MTHD    | Insurance Reserve<br>Calculation Method<br>Dimension                |
| 629                     | STG_INS_SS_RES<br>_BASIS_MASTER        | Stage Insurance Sub<br>Standard Reserve<br>Calculation Basis<br>Master | DIM_INS_SS_RES_<br>BASIS    | Insurance Sub<br>Standard Reserve<br>Calculation Basis<br>Dimension |
| 630                     | STG_CL_RETENTN<br>_BASIS_MASTER        | Stage Contract Limit<br>Retention Basis<br>Master                      | DIM_CL_RETENTN_<br>BASIS    | Contract Limit<br>Retention Basis<br>Dimension                      |
| 631                     | STG_INS_RES_VA<br>LN_TYPE_MASTER       | Stage Insurance<br>Reserve Valuation<br>Type Master                    | DIM_INS_RES_VAL<br>N_TYPE   | Insurance Reserve<br>Valuation Type<br>Dimension                    |
| 632                     | STG_INS_RETN_L<br>EVEL_TYPE_MAST<br>ER | Stage Insurance<br>Retention Level Type<br>Master                      | DIM_INS_RETN_LE<br>VEL_TYPE | Insurance Retention<br>Level Type Dimension                         |

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                    | Dimension Table<br>Name    | Logical Dimension Table Name             |
|-------------------------|--|--|----------------------------|--|
| 633                     | STG_RI_BUSINES<br>S_ORIGIN_MASTE<br>R  | Stage Reinsurance<br>Business Origin<br>Master | DIM_RI_BUSINESS_<br>ORIGIN | Reinsurance Business<br>Origin Dimension |
| 674                     | STG_REINSURAN<br>CE_CNTRCTS_ISS<br>UED | Stage Reinsurance<br>Contracts Issued          | DIM_POLICY                 | Policy Dimension                         |
| 675                     | STG_REINSURAN<br>CE_CONTRACTS_<br>HELD | Stage Reinsurance<br>Contracts Held            | DIM_POLICY                 | Policy Dimension                         |

## 18.6.2 **About Reinsurance Contracts T2Ts (Result Tables)**

Reinsurance Contracts T2Ts and their description are given here.

| T2T Name                        | T2T Description   |
|---------------------------------|---|
| T2T_FCT_REINSURANCE_CONTRTS_HLD | This T2T stores all the attributes of a reinsurance contract held by the entity.  |
| T2T_FCT_REINSURANCE_CONTRTS_ISS | This T2T stores all the attributes of a reinsurance contract issued by the entity.  |
| T2T_FCT_RI_ISSUED_PLCD_COLL_MAP | This T2T stores the mapping between Placed Collateral and Reinsurance Contract. Reinsurers provide security to Insurance Company to make sure that they are adequately covered. |
| T2T_FCT_RI_HELD_MITIGANT_MAP    | This T2T stores the mapping between Mitigant and Reinsurance Contract. Reinsurers provide security to Insurance Company to ensure that they are adequately covered.             |

The mapping details for the Reinsurance Contract T2Ts are given here.

| Source Table<br>Name                   | Logical Stage Table<br>Name                          | Fact Table Name                        | Logical Fact Table                                  | T2T Definition Name                 |
|--|--|--|---|-------------------------------------|
| STG_REINSURA<br>NCE_CONTRAC<br>TS_HELD | Stage Reinsurance<br>Contracts Held                  | FCT_REINSURANC<br>E_CONTRACTS_HE<br>LD | Fact Reinsurance<br>Contracts Held                  | T2T_FCT_REINSURA<br>NCE_CONTRTS_HLD |
| STG_REINSURA<br>NCE_CNTRCTS_<br>ISSUED | Stage Reinsurance<br>Contracts Issued                | FCT_REINSURANC<br>E_CNTRCTS_ISSUE<br>D | Fact Reinsurance<br>Contracts Issued                | T2T_FCT_REINSURA<br>NCE_CONTRTS_ISS |
| STG_RI_ISSUED<br>_PLACED_COLL<br>_MAP  | Stage Reinsurance<br>Issued Placed<br>Collateral Map | FCT_RI_ISSUED_PL<br>ACED_COLL_MAP      | Fact Reinsurance<br>Issued Placed<br>Collateral Map | T2T_FCT_RI_ISSUED<br>_PLCD_COLL_MAP |
| STG_RI_HELD_<br>MITIGANT_MAP           | Stage Reinsurance<br>Held Mitigant Map               | FCT_RI_HELD_MITI<br>GANT_MAP           | Fact Reinsurance<br>Held Mitigant Map               | T2T_FCT_RI_HELD_<br>MITIGANT_MAP    |

#### 18.7 **Deploying Insurance Contracts Tables on Hive**

All RDBMS related Insurance Contracts Result tables can also be deployed on Hive (Stage and Results on Hive).

# **NOTE**

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### **Populating Insurance Contracts Dimension Tables** 18.8

Follow this SCD process to populate data into any Insurance Contracts Dimension table:

**NOTE** 

You can also follow this SCD process to populate data into any Hive related Insurance Contracts Dimension table.

- 1. To populate data into any Insurance Contracts Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Insurance Contracts Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

#### 18.9 **Populating Insurance Contracts T2T Result Tables**

Follow this T2T process to populate data into any Insurance Contracts T2T Result table:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Insurance Contracts T2T Result table.

- To populate data into any Insurance Contracts T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Insurance Contracts Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

# 19 Producer and Producer Agreement Tables

This chapter provides information about Insurance Producer and Producer Agreement tables in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- About Producer and Producer Agreement Dimension Tables
- About Producer and Producer Agreement T2Ts (Result Tables)
- Deploying Producer and Producer Agreement Tables on Hive
- Populating Producer and Producer Agreement Dimension Tables
- Populating Producer and Producer Agreement T2T Result Tables

Insurance Producer refers to a person or a firm that must be licensed under the respective laws of the land to sell, solicit, or negotiate Insurance Contracts.

Agreement means a formal agreement between an Insurance firm and an Insurance Producer on the lines of authority specified in the agreement to sell, negotiate or solicit the Insurance products with prospective customers. In some companies, an agent must also be appointed for selling particular products.

Insurance license is an authority to sell, solicit or negotiate particular Insurance products and awarded by jurisdiction specific insurance regulatory authority to Insurance Producers whereas producer agreements are between producers and insurance firms. Availability of valid insurance license is a pre-requisite of the producer agreements. There are two types of agreements:

- Producer Agreements: This can be between producers, or producer and carrier. Basic components of Producer agreements are Producer and Carrier. Producer Agreement specify distribution details along with product types. Essentially, one Producer Agency handles multiple individual Producers on behalf of carrier, where individual Producers are not appointed by carrier is what is excluded from this.
- Carrier Appointments: This is about direct appointment by insurance carrier or appointment by producer agency. Basic components of Carrier Appointments are Carrier, Producer Agreement identifier and Appointment Identifier. If said appointment is through producer agency or agreement, then end user must populate Producer Identifier. For direct appointments, producer agreement identifier can be chosen not be populated. Carrier appointments specify distribution details along with product types and other details. However, it is expected that when carrier appointments are done as part of producer agreement, then distribution and product types are within the allowed values as per producer agreement.

Producer and Producer Appointment tables store the details related to Producer, Producer Agreements, Carrier Appointments, and license, which covers both the use cases mentioned above. Producer Appointments and Agreements are used to track down the sales.

To determine the eligibility of a Producer, the Examinations and Certifications are used. For more information, see Party Producer Exam, Certification, and License Tables.

These are the Producer and Producer Agreement entities:

- Stage Producer Appointment Details loads the Producer Appointment details. The appointment
  collection represents the various appointments between the agent and various companies. The
  appointment may be to an insurance company carrier, or can be used for appointments to
  distributors. Appointments are assigned to each Producer by each company by jurisdiction. In some
  companies, an agent also must be appointed for selling particular products.
- Stage Producer Insurance Distribution Details loads the Insurance distribution details. It may be used
  with Carrier Code as entity recognition for referencing the associated Insurance Distribution
  Agreement.

Stage Producer Line of Authority Details loads the individual lines of authority, which are required to offer this product for sale.

## **About Producer and Producer Agreement Dimension Tables** 19.1

Producer and Producer Agreement Dimension table names and their remarks are given here.

| Logical Dimension Table Name                  | Remarks  |
|---|--|
| Insurance Distribution Level Type Dimension   | This table stores the type of area, where the producer can distribute or is appointed for selling the insurance products.  Sample values: AREA, BRANCH, OTHER, UNKNOWN, CLIENTSEGMENT, etc.  |
| Insurance Distribution Payment Form Dimension | This table stores the Insurance Distribution Payment Form details. Sample values: CASH, CASHIERSCHK, CERTIFIEDCHK, etc.  |
| Insurance License Provision Type Dimension    | This table stores the insurance License Provision Type Code details.  Sample values: OTHER, UNKNOWN, PERM, TEMP, etc.  |
| Insurance Solicitor Type Dimension            | This table stores the insurance solicitor type details. This information is used in situations where a producer hierarchy involves separate individuals for soliciting and writing policies. These individuals can also be Brokers, General Agents, etc., which is indicated via the Producer Appointment Type. There are licensing and appointment needs for each level of the hierarchy, as well as differences in the way compensation is handled and the names that appear on the contract.  Sample values: OTHER, UNKNOWN, ADHERENT, and DRNONCOMM. |
| Insurance Producer Appointment Dimension      | This table stores the Insurance Producer Appointment details.  |
| Insurance Line Of Authority Dimension         | This table stores the Insurance Line of Authority details.   |
| Producer Attrition Event Dimension            | This table stores the list of producer attrition event, reason for the status of the Producer or Producer Appointment as of the Producer Attrition Reason Date.  Sample values: OTHINSCARRIER, MARRIAGE, NEWPOSITION, OTHEREMP, ILLNESS, INCAPACITY, etc.  |
| Producer Attrition Event Reason Dimension     | This table stores the list of Producer Attrition Reason code.  Sample values: OTHER, UNKNOWN, ACTIVE, REJECTED, INACTIVE, PENDING, SERVONLY, and TRANSFEROUT.  |
| Producer Vested Type Dimension                | This table stores the list of Producer vested type code. Sample values: FULL, NONE, OTHER, and UNKNOWN.  |
| Insurance Sub Channel Dimension               | This table stores details of the type of Insurance Distribution sub channel.  Sample values: OTHER, UNKNOWN, FP, GA, MGA, and PPGA.  |
| Underwriting Privilege Type Dimension         | This table stores the details of level of underwriting authority granted to Producers.  Sample values: OTHER, UNKNOWN, NORMAL, and SUPERIOR.   |

The mapping details for the Producer and Producer Agreement Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage Table<br>Name                            | Dimension Table<br>Name       | Logical Dimension Table Name                      |
|-------------------------|--|--|-------------------------------|---|
| 713                     | STG_INS_DSTBTN<br>_LVL_TYPE_MAST<br>ER | Stage Insurance<br>Distribution Level Type<br>Master   | DIM_INS_DSTBTN_<br>LVL_TYPE   | Insurance<br>Distribution Level<br>Type Dimension |
| 714                     | STG_INS_DIS_PAY<br>MNT_FORM_MAST<br>ER | Stage Insurance<br>Distribution Payment<br>Form Master | DIM_INS_DIS_PAYM<br>NT_FORM   | Insurance Distribution Payment Form Dimension     |
| 715                     | STG_INS_LCNS_P<br>RVSN_TYPE_MAS<br>TER | Stage Insurance<br>License Provision Type<br>Master    | DIM_INS_LCNS_PR<br>VSN_TYPE   | Insurance License<br>Provision Type<br>Dimension  |
| 716                     | STG_INS_SOLICIT<br>OR_TYPE_MASTE<br>R  | Stage Insurance<br>Solicitor Type Master               | DIM_INS_SOLICITO<br>R_TYPE    | Insurance Solicitor Type Dimension                |
| 717                     | STG_PRDCR_APP<br>TMNT_DETAILS          | Stage Producer<br>Appointment Details                  | DIM_INSURANCE_P<br>RDCR_APPT  | Insurance Producer<br>Appointment<br>Dimension    |
| 718                     | STG_PRODUCER_<br>LOA_DETAILS           | Stage Producer Line Of Authority Details               | DIM_INS_LINE_OF_<br>AUTHORITY | Insurance Line Of Authority Dimension             |
| 719                     | STG_PRDCR_ATT<br>RN_EVENT_MAST<br>ER   | Stage Producer Attrition<br>Event Master               | DIM_PRDCR_ATTR<br>N_EVENT     | Producer Attrition<br>Event Dimension             |
| 720                     | STG_PRDCR_ATT<br>RN_REASON_MAS<br>TER  | Stage Producer Attrition<br>Event Reason Master        | DIM_PRDCR_ATTR<br>N_REASON    | Producer Attrition<br>Event Reason<br>Dimension   |
| 721                     | STG_PRDCR_VES<br>TED_TYPE_MASTE<br>R   | Stage Producer Vested<br>Type Master                   | DIM_PRDCR_VEST<br>ED_TYPE     | Producer Vested<br>Type Dimension                 |
| 722                     | STG_INS_SUB_CH<br>ANNEL_MASTER         | Stage Insurance Sub<br>Channel Master                  | DIM_INS_SUB_CHA<br>NNEL       | Insurance Sub<br>Channel Dimension                |
| 723                     | STG_UNW_PRIVIL<br>EGE_TYPE_MAST<br>ER  | Stage Underwriting<br>Privilege Type Master            | DIM_UNW_PRIVILE<br>GE_TYPE    | Underwriting<br>Privilege Type<br>Dimension       |

# 19.2 **About Producer and Producer Agreement T2Ts (Result Tables)**

Producer and Producer Agreement T2Ts and their description are given here.

| T2T Name                      | T2T Description  |
|-------------------------------|--|
| T2T_FCT_PRDCR_APPTMNT_DETAILS | This T2T stores the Producer Appointment details. The appointment collection represents the various appointments between the agent and various companies. The appointment may be to an insurance company carrier, or can be used for appointments to distributors. For example, MGAs and National Accounts have similar processes for appointments. Appointments |

| T2T Name                          | T2T Description   |
|-----------------------------------|---|
|                                   | are assigned to each Producer by each company by jurisdiction. In some companies, an agent also must be appointed for selling particular products.                            |
| T2T_FCT_PRDCR_INS_DISTRBTION_DTLS | This table stores the Insurance distribution details. It may be used with Carrier Code as entity recognition for referencing the associated Insurance Distribution Agreement. |
| T2T_FCT_PRODUCER_LOA_DETAILS      | This table stores the individual lines of authority, which are required to offer this product for sale.   |

Producer and Producer Agreement T2Ts and their description are given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                         | Fact Table Name                   | Logical Fact<br>Table Name                            | T2T Name                              |
|---------------------------------------|---|-----------------------------------|---|---------------------------------------|
| STG_PRDCR_AP<br>PTMNT_DETAILS         | Stage Producer<br>Appointment<br>Details            | FCT_PRDCR_APP<br>TMNT_DETAILS     | Fact Producer<br>Appointment<br>Details               | T2T_FCT_PRDCR_APPT<br>MNT_DETAILS     |
| STG_PRDCR_IN<br>S_DISTRBTION_<br>DTLS | Stage Producer<br>Insurance<br>Distribution Details | FCT_PRDCR_INS_<br>DISTRBTION_DTLS | Fact Producer<br>Insurance<br>Distribution<br>Details | T2T_FCT_PRDCR_INS_DI<br>STRBTION_DTLS |
| STG_PRODUCE<br>R_LOA_DETAILS          | Stage Producer<br>Line Of Authority<br>Details      | FCT_PRODUCER_<br>LOA_DETAILS      | Fact Producer<br>Line Of Authority<br>Details         | T2T_FCT_PRODUCER_L<br>OA_DETAILS      |

# 19.3 Deploying Producer and Producer Agreement Tables on Hive

All RDBMS related Producer and Producer Agreement Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 19.4 Populating Producer and Producer Agreement Dimension Tables

Follow this SCD process to populate data into any Producer and Producer Agreement Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Producer and Producer Agreement Dimension table.

- 1. To populate data into any Producer and Producer Agreement Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of a Producer and Producer Agreement Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

# Populating Producer and Producer Agreement T2T Result 19.5 **Tables**

Follow this T2T process to populate data into Producer and Producer Agreement T2T Result tables:

NOTE

You can also follow this T2T process to populate data into any Hive related Producer and Producer Agreement T2T Result table.

- 1. To populate data into Producer and Producer Agreement T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Producer and Producer Agreement Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

# 20 Common Account Summary Tables

This chapter provides information about Common Account Summary tables in the Oracle Insurance Data Foundation application such as Asset and other Account Summary, Trading and Investment, Instruments Contracts, and Capital and Borrowings, and step-by-step instructions to use this section.

This chapter includes the following topics:

- Abstract
- Trading and Investments Table
- About Trading and Investments T2T (Result Table)
- Instruments Contracts Tables
- About Instruments Contracts Dimension Tables
- About Instruments Contracts T2T (Result Table)
- Capital and Borrowings Tables
- About Capital and Borrowings T2Ts (Result Tables)
- Other Common Account Summary Tables
- Abstract of Common Account Summary Result Tables
- Deploying Common Account Summary Tables on Hive
- Populating Common Account Summary Dimension Tables
- Populating Common Account Summary T2T Result Tables

# 20.1 Abstract

For an Insurance company this entity stores account covering their exposures to Trading, Investment as well as Loans.

OIDF Subject Area of Trading and Investment refers to the significant portion of assets of the Insurance Company. Trading and Investment Subject Area comprise of following types of entities:

- <u>Contracts</u>: Investment Contracts refers to a contract or transaction or scheme where entity invest
  money either on its own behalf or on behalf of their clients with expectation of profit from sale or
  holding of such investment.
- <u>Instrument</u>: Tradable investments use instrument with ISIN/CUSIP/Other known identifiers. Instrument definition most commonly is published by issuer of instrument, which can be another public or private or government entity or stock exchange.

Investment contracts refers to a contract or transaction or scheme where entity invest money either on its own behalf or on behalf of their clients with expectation of profit from sale or holding of such investment. Capital Instruments also make use of same relevant instrument set of tables.

# **Contracts**

OIDF has different entities known as product processors to hold variety of instrument types. Given below is the list of trading and investment product processors.

## Instruments

Instrument refers to an issue or derivative contract which is tradable in market. Over the counter contracts are considered as instruments. Thus Government bonds, municipal bonds, future contracts, option contracts

and excludes forwards, swap contracts etc. Multiple contracts in product processor entities mentioned above can have same instrument traded.

Following table explains need of creating an instrument before populating the contract for a given product processor.

| Product Processor        | A record in instrument contract master and dimension is required? |
|--------------------------|---|
| Stage Investments        | Yes for Exchange Traded Contracts.                                |
| Stage MM Contracts       | Yes for Exchange Traded Contracts.                                |
| Stage Futures            | Yes   |
| Stage Option Contracts   | Yes   |
| Stage Credit Derivatives | Yes for Exchange Traded Contracts.                                |
| Stage Fx Contracts       | No  |
| Stage Forwards           | No  |
| Stage Mutual Funds       | Yes   |
| Stage Commodities        | Yes for Exchange Traded Contracts.                                |

## **Trading and Investments Contract Tables** 20.2

#### 20.2.1 **Instruments Tables**

#### 20.2.1.1 **About Instruments Dimension Tables**

Instruments Dimension table names and their description are given here.

| Logical Dimension Table Name    | Dimension Table Description   |
|---------------------------------|---|
| Instruments Contracts Dimension | This table stores data related to contracts and instruments in the market and their details such as Effective Date, Maturity Date, Face Value, Day Convention, Strike, etc. |
| Geography Dimension             | This table stores the distinct list of all geographical locations, where any of the transaction channels of the Insurance Company are located.                              |

The mapping details for the Instruments Dimension tables are given here.

| Map Reference | Source Table                           | Logical Stage Table                 | Dimension Table             | Logical Dimension Table Name     |
|---------------|--|-------------------------------------|-----------------------------|----------------------------------|
| Number        | Name                                   | Name                                | Name                        |                                  |
| 69            | STG_INSTRUME<br>NT_CONTRACT_<br>MASTER | Stage Instrument<br>Contract Master | DIM_INSTRUMENT<br>_CONTRACT | Instrument Contract<br>Dimension |

| Map Reference | Source Table             | Logical Stage Table       | Dimension Table | Logical Dimension Table Name |
|---------------|--------------------------|---------------------------|-----------------|------------------------------|
| Number        | Name                     | Name                      | Name            |                              |
| 64            | STG_GEOGRAP<br>HY_MASTER | Stage Geography<br>Master | DIM_GEOGRAPHY   | Geography Dimension          |

#### 20.2.1.2 **About Instruments T2T (Result Table)**

Instruments Contracts T2Ts and their description are given here.

| T2T Name                       | T2T Description  |
|--------------------------------|--|
| T2T_STG_MM_CAS                 | This T2T stores the details of Money Market contract. For example: Certificates of Deposit (CDs), U.S. Treasury bills, commercial paper, municipal notes, federal funds, etc. The money market is used by a wide array of participants, from a company raising money by selling commercial paper into the market to an investor purchasing CDs as a safe place to park money for the short term. |
| T2T_STG_OPTIONS_CAS            | This T2T stores records of call and put options that are bought (long) or sold (short) by the customer.  |
| T2T_STG_FUTURES_CAS            | This T2T stores the details of Futures contract.   |
| T2T_STG_FORWARDS_CAS           | This T2T stores the details of Forwards contract.  |
| T2T_STG_CREDIT_DERIVATIVES_CAS | This T2T stores the details of Credit Derivatives contract.  |
| T2T_STG_COMMODITIES_CAS        | This T2T stores the details of Commodities contract.   |
| T2T_STG_SWAPS_CONTRACTS_CAS    | This T2T stores the details of swaps contract.   |
| T2T_STG_FX_CONTRACTS_CAS       | This T2T stores the details of Foreign Exchange contracts.   |
| T2T_STG_GUARANTEES_CAS         | This T2T stores the guarantees issued by the Insurance Company to its customers.   |

The mapping details for the Instruments T2T are given here.

| Source Table<br>Name       | Logical Stage<br>Table Name  | Fact Table Name                | Logical Fact Table<br>Name     | T2T Name                           |
|----------------------------|------------------------------|--------------------------------|--------------------------------|------------------------------------|
| STG_MM_CONTR<br>ACTS       | Stage Money market Contracts | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary | T2T_STG_MM_CAS                     |
| STG_OPTION_CO<br>NTRACTS   | Stage Option contracts       | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary | T2T_STG_OPTIONS<br>_CAS            |
| STG_FUTURES                | Stage Futures                | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary | T2T_STG_FUTURES<br>_CAS            |
| STG_FORWARDS               | Stage Forwards               | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary | T2T_STG_FORWAR<br>DS_CAS           |
| STG_CREDIT_DE<br>RIVATIVES | Stage Credit<br>Derivatives  | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary | T2T_STG_CREDIT_<br>DERIVATIVES_CAS |

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table Name | T2T Name       |
|----------------------|-----------------------------|-----------------|-------------------------|----------------|
| STG_COMMODITI        | Stage Commodities           | FCT_COMMON_AC   | Fact Common             | T2T_STG_COMMOD |
| ES                   |                             | COUNT_SUMMARY   | Account Summary         | ITIES_CAS      |
| STG_SWAPS_CO         | Stage Swap                  | FCT_COMMON_AC   | Fact Common             | T2T_STG_SWAPS_ |
| NTRACTS              | Contracts                   | COUNT_SUMMARY   | Account Summary         | CONTRACTS_CAS  |
| STG_GUARANTE         | Stage Guarantees            | FCT_COMMON_AC   | Fact Common             | T2T_STG_GUARAN |
| ES                   |                             | COUNT_SUMMARY   | Account Summary         | TEES_CAS       |

#### 20.2.2 **About Trading and Investments Contract T2Ts (Result Tables)**

Trading and Investments Contract T2Ts and their description is given here.

| T2T Name                          | T2T Description   |
|-----------------------------------|---|
| T2T_STG_INVESTMENTS_CAS           | This T2T stores the details of investment contract. For example: Government and Municipal Bonds, Covered/Secured Bonds, Corporate Bonds, etc.   |
| T2T_STG_MUTUAL_FUNDS_CAS          | This T2T stores the details of Mutual Funds contract.   |
| T2T_FCT_FUND_CIS_COMPOSITION      | This T2T stores the composition details of the Investment Funds.  |
| T2T_FCT_INSTRUMENT_RATING_DETAILS | This T2T stores the rating of trading instruments including Mitigant that are tradable.   |
| T2T_FCT_INSTRUMENT_MARKET_PRICES  | This T2T stores relevant information about breach/penalty levied by the regulator in respect of- Domestic Regulatory Liquidity requirements (CRR and SLR) for all branches including overseas branches. |

The mapping details for the Trading and Investments Contract T2Ts are given here.

| SOURCE TABLE                          | Logical Stage<br>Table Name        | Fact Table Name                   | Logical Fact Table<br>Name        | T2T Name                              |
|---------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|---------------------------------------|
| STG_INVESTMEN                         | Stage Investments                  | FCT_COMMON_AC                     | Fact Common                       | T2T_STG_INVESTMEN                     |
| TS                                    |                                    | COUNT_SUMMARY                     | Account Summary                   | TS_CAS                                |
| STG_MUTUAL_FU                         | Stage Mutual Funds                 | FCT_COMMON_AC                     | Fact Common                       | T2T_STG_MUTUAL_F                      |
| NDS                                   |                                    | COUNT_SUMMARY                     | Account Summary                   | UNDS_CAS                              |
| STG_FUND_CIS_                         | Stage Fund CIS                     | FCT_FUND_CIS_C                    | Fact Fund CIS                     | T2T_FCT_FUND_CIS_                     |
| COMPOSITION                           | Composition                        | OMPOSITION                        | Composition                       | COMPOSITION                           |
| STG_INSTRUMEN<br>T_RATING_DETAI<br>LS | Stage Instrument<br>Rating Details | FCT_INSTRUMENT<br>_RATING_DETAILS | Fact Instrument<br>Rating Details | T2T_FCT_INSTRUMEN<br>T_RATING_DETAILS |
| STG_INSTRUMEN<br>T_MARKET_PRIC<br>ES  | Stage Instrument<br>Market Prices  | FCT_INSTRUMENT<br>_MARKET_PRICES  | Fact Instrument<br>Market Prices  | T2T_FCT_INSTRUMEN<br>T_MARKET_PRICES  |

For information about Instrument Options, see <u>Guaranteed Benefits and Embedded Options</u> and <u>Embedded Options</u> are also and also are also and also are also and also are als

# 20.3 Capital and Borrowings Tables

Capital and Borrowings pertains to the capital and borrowings part of balance sheet of a financial institution. It covers capital instruments such as Equity and Debt along with non-retail borrowings done by financial institutions.

# 20.3.1 About Capital and Borrowings T2Ts (Result Tables)

Capital and Borrowings T2Ts and their description are given here.

| T2T Name                          | T2T Description  |
|-----------------------------------|--|
| T2T_FCT_CAP_INSTR_POSITIONS       | This T2T stores the regulatory position of capital instruments and details of treatment to capital instrument under I and III regulations.   |
| T2T_FCT_CAP_INSTR_TXNS            | This T2T stores the transactions on the capital instruments. The entity stores settled and unsettled transactions differentiated by mnemonic codes. It also stores the transactions that are settled with cash or with other means such as securities. |
| T2T_FCT_INSTR_PROPOSED_TXNS       | This T2T stores the proposed set of instruments that will be transacted by the Insurance Company.  |
| T2T_STG_BORROWING_COMMITMENT_TXNS | This T2T stores all the transaction records of Borrowing Commitment Contracts  |

The mapping details for the Capital and Borrowings T2Ts are given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                   | Fact Table Name                | Logical Fact Table<br>Name                  | T2T Name                                  |
|---------------------------------------|---|--------------------------------|---|---|
| STG_CAP_INSTR<br>_POSITIONS           | Stage Capital<br>Instrument Positions         | FCT_CAP_INSTR_<br>POSITIONS    | Fact Capital<br>Instrument Positions        | T2T_FCT_CAP_INST<br>R_POSITIONS           |
| STG_CAP_INSTR<br>_TXNS                | Stage Capital<br>Instrument<br>Transactions   | FCT_CAP_INSTR_<br>TXNS         | Fact Capital<br>Instrument<br>Transactions  | T2T_FCT_CAP_INST<br>R_TXNS                |
| STG_INSTR_PRO<br>POSED_TXNS           | Stage Instrument<br>Proposed<br>Transactions  | FCT_INSTR_PROP<br>OSED_TXNS    | Fact Instrument<br>Proposed<br>Transactions | T2T_FCT_INSTR_PR<br>OPOSED_TXNS           |
| STG_BORROWIN<br>G_COMMITMENT_<br>TXNS | Stage Borrowing<br>Commitment<br>Transactions | FCT_COMMON_AC<br>COUNT_SUMMARY | Fact Common<br>Account Summary              | T2T_STG_BORROW<br>ING_COMMITMENT_<br>TXNS |

# 20.4 Other Common Account Summary Tables

Other Common Account Summary T2Ts and their description, and T2T mapping details are given here.

The target table is Fact Common Account Summary (FCT\_COMMON\_ACCOUNT\_SUMMARY).

| Source Table Name             | Logical Stage Table<br>Name          | T2T Name                                  | T2T Description   |
|-------------------------------|--------------------------------------|---|---|
| STG_BORROWING_<br>COMMITMENTS | Stage Borrowing<br>Commitments       | T2T_STG_BORROWIN<br>G_COMMITMENTS_C<br>AS | This T2T stores the details of borrowing commitment contract.                     |
| STG_REPO_CONTR<br>ACTS        | Stage Reporting Contracts            | T2T_STG_REPO_CON<br>TRACTS_CAS            | This T2T stores the details of repurchase contracts.                              |
| STG_CUSTODIAL_A<br>CCOUNTS    | Stage Custodial<br>Accounts          | T2T_STG_CUSTODIAL<br>_ACCOUNTS_CAS        | This T2T stores the details of all accounts held in a custodial capacity.         |
| STG_MANAGED_IN<br>V_ADV       | Stage Managed<br>Investment Advances | T2T_STG_MANAGED_<br>INV_ADV_CAS           | This T2T stores the details of all managed investment account and other services. |

#### 20.5 **Abstract of Common Account Summary Result Tables**

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 Common Account Summary tables 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 Common Account Summary tables that are organized by application subject area.

The preceding Common 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.

#### 20.6 **Deploying Common Account Summary Tables on Hive**

All RDBMS related Common Account Summary Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### **Populating Common Account Summary Dimension Tables** 20.7

Follow this SCD process to populate data into any Common Account Summary Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Common Account Summary Dimension table.

- 1. To populate data into any Common Account Summary Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Common Account Summary Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

#### 20.8 Populating Common Account Summary T2T Result Tables

## NOTE

Ensure to load FCT\_COMMON\_ACCOUNT\_SUMMARY and FSI\_EXCHANGE\_RATES tables prior to loading any of the other Account Summary tables.

Ensure to manually configure the SETUP MASTER table with required GAAP CODEs before executing Account Summary Population T2Ts. For an account, load only one GAAP\_CODE to Fact Common Account Summary table. By default, OIDF installer seeds the following entry into SETUP MASTER. When executing through batch, the RUNSkey is defaulted to -1.

Follow this T2T process to populate data into any Common Account Summary T2T Result table:

# **NOTE**

You can also follow this T2T process to populate data into any Hive related Common Account Summary T2T Result table.

- 1. To populate data into any Common Account Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Common Account Summary Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

## **Loan Account Summary Tables** 21

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

This chapter includes the following topics:

- About Loan Account Summary T2T (Result Table)
- Deploying Loan Account Summary Tables on Hive
- Populating Loan Account Summary T2T Result Tables

Loan Account Summary provides the detailed report of insurance transactions done.

Loan Account in Insurance is used, when an insured takes a loan against his/her policy. The policy code is used to track the loan and its outstanding amount for the reporting if the policy is closed, and then decided how to treat the loan.

#### 21.1 **About Loan Account Summary T2T (Result Table)**

Loan Account Summary T2T and its description is given here.

| T2T Name                    | T2T Description   |
|-----------------------------|---|
| T2T_FLAS_STG_LOAN_CONTRACTS | This T2T stores the details of loan contracts. This table includes mortgage, and vehicle loans. |

The mapping details for the Loan Account Summary T2T is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table Name | T2T Name          |
|----------------------|-----------------------------|-----------------|-------------------------|-------------------|
| STG_LOAN_CON         | Stage Loan                  | FCT_LOAN_ACCO   | Fact Loan Account       | T2T_FLAS_STG_LOAN |
| TRACTS               | Contracts                   | UNT_SUMMARY     | Summary                 | _CONTRACTS        |

#### 21.2 **Deploying Loan Account Summary Tables on Hive**

All RDBMS related Loan Account Summary Result can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

## 21.3 **Populating Loan Account Summary T2T Result Tables**

Follow this T2T process to populate data into any Loan Account Summary T2T Result tables:

# **NOTE**

You can also follow this T2T process to populate data into any Hive related Loan Account Summary T2T Result table.

- 1. To populate data into any Loan Account Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- **2.** To check the T2T batch execution status of the Loan Account Summary Result tables, follow the procedure Check the Batch Execution Status of T2T.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files and Check Error Messages</u>.

#### 22 **Fiduciary Services Investment Summary Population**

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

This chapter includes the following topics:

- About Fiduciary Services Investment Summary T2T (Result Table)
- Deploying Fiduciary Services Investment Summary Result Tables on Hive
- Populating Fiduciary Services Investment Summary T2T Result Tables

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 may have different investments that the person may do. The customer may have different assets under the trust such as Investments, Mutual Funds, etc. Therefore, 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.

# **About Fiduciary Services Investment Summary T2T (Result 22.1** Table)

Fiduciary Services Investment Summary T2T and its description is given here.

| T2T Name                         | T2T Description   |
|----------------------------------|---|
| T2T_FFSIS_STG_CUSTODIAL_ACCOUNTS | This T2T stores the details of all accounts held in a custodial capacity.     |
| T2T_FFSIS_STG_INVESTMENTS        | This T2T stores the details of investment contract.                           |
| T2T_FFSIS_STG_MANAGED_INV_ADV    | This T2T stores details of all managed investment account and other services. |
| T2T_FFSIS_STG_MUTUAL_FUNDS       | This T2T stores details of all mutual funds contracts.                        |
| T2T_FFSIS_STG_TRUSTS             | This T2T stores the details of the trusts account.                            |

The mapping details for the Fiduciary Services Investment Summary T2Ts are given here.

| Source Table<br>Name       | Logical Stage<br>Table Name             | Fact Table Name                       | Logical Fact Table<br>Name                       | T2T Name                             |
|----------------------------|---|---------------------------------------|--|--------------------------------------|
| STG_CUSTODIA<br>L_ACCOUNTS | Stage Custodial<br>Accounts             | FCT_FIDUCIARY<br>_SERV_INVST_S<br>UMM | Fact Fiduciary<br>Services Investment<br>Summary | T2T_FFSIS_STG_CUSTODI<br>AL_ACCOUNTS |
| STG_INVESTME<br>NTS        | Stage Investments                       | FCT_FIDUCIARY<br>_SERV_INVST_S<br>UMM | Fact Fiduciary<br>Services Investment<br>Summary | T2T_FFSIS_STG_INVESTM<br>ENTS        |
| STG_MANAGED<br>_INV_ADV    | Stage Managed<br>Investment<br>Advances | FCT_FIDUCIARY<br>_SERV_INVST_S<br>UMM | Fact Fiduciary<br>Services Investment<br>Summary | T2T_FFSIS_STG_MANAGE<br>D_INV_ADV    |

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name                       | Logical Fact Table                               | T2T Name                       |
|----------------------|-----------------------------|---------------------------------------|--|--------------------------------|
| STG_MUTUAL_<br>FUNDS | Stage Mutual<br>Funds       | FCT_FIDUCIARY<br>_SERV_INVST_S<br>UMM | Fact Fiduciary<br>Services Investment<br>Summary | T2T_FFSIS_STG_MUTUAL_<br>FUNDS |
| STG_TRUSTS           | Stage Trusts                | FCT_FIDUCIARY<br>_SERV_INVST_S<br>UMM | Fact Fiduciary<br>Services Investment<br>Summary | T2T_FFSIS_STG_TRUSTS           |

# **Deploying Fiduciary Services Investment Summary Result** 22.2 Tables on Hive

All RDBMS related Fiduciary Services Investment Summary Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

# Populating Fiduciary Services Investment Summary T2T 22.3 Result Tables

Follow this T2T process to populate data into Fiduciary Services Investment Summary T2T Result tables:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Fiduciary Services Investment Summary T2T Result table.

- 1. To populate data into any Fiduciary Services Investment Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Fiduciary Services Investment Summary Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

#### **Mitigants Results Tables** 23

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

This chapter includes the following topics:

- About Mitigants Results T2Ts (Result Tables)
- Deploying Mitigants Results Tables on Hive
- Populating Mitigants Results T2T Result Tables

Mitigant means to reduce loss of life and property by reducing the impact of undesirable events.

The purpose of Mitigants Results table is to store the list of actions to be taken to reduce the impact of undesirable events.

#### **About Mitigants Results T2Ts (Result Tables)** 23.1

Mitigants Results T2Ts and its description is given here.

| T2T Name                     | T2T Description   |
|------------------------------|---|
| T2T_FCT_MITIGANTS            | This T2T stores consolidated data of all Mitigants and their details.   |
| T2T_FCT_ACCOUNT_MITIGANT_MAP | This T2T stores account to Mitigant mapping details. This T2T stores more than one Mitigant to be mapped to an account. |

The mapping details for the Mitigants Results T2Ts are given here.

| Source Table<br>Name         | Logical Stage<br>Table Name   | Fact Table Name              | Logical Fact Table<br>Name   | T2T Name                         |
|------------------------------|-------------------------------|------------------------------|------------------------------|----------------------------------|
| STG_MITIGANTS                | Stage Mitigants               | FCT_MITIGANTS                | Fact Mitigants               | T2T_FCT_MITIGANTS                |
| STG_ACCOUNT_<br>MITIGANT_MAP | Stage Account<br>Mitigant Map | FCT_ACCOUNT_MI<br>TIGANT_MAP | Fact Account<br>Mitigant Map | T2T_FCT_ACCOUNT_<br>MITIGANT_MAP |

#### **Deploying Mitigants Results Tables on Hive** 23.2

All RDBMS related Mitigants Results can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

# 23.3 Populating Mitigants Results T2T Result Tables

Follow this T2T process to populate data into any Mitigants Results T2T Result tables:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Mitigants Results T2T Result table.

- 1. To populate data into any Mitigants Results T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Mitigants Result tables, follow the procedure <a href="Check">Check</a> the Batch Execution Status of T2T.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

#### **Placed Collateral Tables** 24

This chapter provides information about Placed Collateral Result tables in the Oracle Insurance Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- **About Placed Collateral Dimension Tables**
- About Placed Collateral T2Ts (Result Tables)
- Deploying Placed Collateral Tables on Hive
- Populating Placed Collateral Dimension Tables
- Populating Placed Collateral T2T Result Tables

Financial Institutions place collateral in derivative transactions, reinsurance issued or similar use cases where risk of obligations not being served by reporting entity are perceived high and are secured by seeking agreed collateral in lieu to reduce the risk. Therefore, Placed Collateral refers to the collateral placed by reporting entity to other entities. The Mitigant reflect collateral received and collateral placed functions exactly opposite as of Mitigant.

In Data Foundation, assets hold on book and collateral placed are treated differently. For example, assume a use case where Insurance Company has purchased a lot of Government securities with market value of 10 Million USD. When they write a reinsurance contract, Insurance Company has sought a collateral comprising of a government securities worth 4 million USD. In this case, stage investments holds a data reflecting 6 million USD, whereas stage placed collateral holds data of 4 million USD.

#### 24.1 **About Placed Collateral Dimension Tables**

Placed Collateral Dimension table names and their description are given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| Placed Collateral Dimension  | This table stores the details of master collaterals that are placed by the Insurance entity with other Insurance entities in order to secure its borrowings. |

The mapping details for the Placed Collateral Dimension table is given here.

| Map Reference<br>Number | Source Table Name | Logical Stage<br>Table Name | Dimension Table Name | Logical Dimension Table Name |
|-------------------------|-------------------|-----------------------------|----------------------|------------------------------|
| 202                     | STG_PLACED_COL    | Stage Placed                | DIM_PLACED_COL       | Placed Collateral            |
|                         | LATERAL_MASTER    | Collateral Master           | LATERAL              | Dimension                    |

#### 24.2 **About Placed Collateral T2Ts (Result Tables)**

Placed Collateral T2Ts and their description are given here.

| T2T Name                        | T2T Description   |
|---------------------------------|---|
| T2T_FCT_PLACED_COLLATERAL       | This T2T stores the details of collateral which are placed against an account.  |
| T2T_FCT_ACCT_PLACED_COLL_MAP    | This T2T stores account to placed collateral mapping details. It is an intersection table to denote that a placed collateral can be used in multiple accounts and an account contains multiple collaterals. |
| T2T_FCT_RI_ISSUED_PLCD_COLL_MAP | This T2T stores the mapping between Placed Collateral and Reinsurance Contract. Reinsurers provide security to Insurance Company to make sure that they are adequately covered.                             |

The mapping details for the Placed Collateral T2Ts are given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                          | Fact Table Name                       | Logical Fact Table Name                             | T2T Name                            |
|---------------------------------------|--|---------------------------------------|---|-------------------------------------|
| STG_PLACED_C<br>OLLATERAL             | Stage Placed<br>Collateral                           | FCT_PLACED_COL<br>LATERAL             | Fact Placed<br>Collateral                           | T2T_FCT_PLACED_C<br>OLLATERAL       |
| STG_ACCT_PLA<br>CED_COLL_MAP          | Stage Account<br>Placed Collateral<br>Map            | FCT_ACCT_PLACE<br>D_COLL_MAP          | Fact Account Placed<br>Collateral Map               | T2T_FCT_ACCT_PLAC<br>ED_COLL_MAP    |
| STG_RI_ISSUED<br>_PLACED_COLL<br>_MAP | Stage Reinsurance<br>Issued Placed<br>Collateral Map | FCT_RI_ISSUED_P<br>LACED_COLL_MA<br>P | Fact Reinsurance<br>Issued Placed<br>Collateral Map | T2T_FCT_RI_ISSUED_<br>PLCD_COLL_MAP |

#### 24.3 **Deploying Placed Collateral Tables on Hive**

All RDBMS related Placed Collateral Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### 24.4 **Populating Placed Collateral Dimension Tables**

Follow this SCD process to populate data into any Placed Collateral Dimension table:

**NOTE** 

You can also follow this SCD process to populate data into any Hive related Placed Collateral Dimension table.

1. To populate data into any Placed Collateral Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.

- 2. To check the SCD batch execution status of a Placed Collateral Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

#### **Populating Placed Collateral T2T Result Tables** 24.5

Follow this T2T process to populate data into any Placed Collateral T2T Result table:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Placed Collateral T2T Result table.

- 1. To populate data into any Placed Collateral T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Placed Collateral Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

#### **Transaction and Accounting Tables** 25

This chapter provides information about Insurance Policy Transactions tables in the Oracle Insurance Data Foundation application.

This consists of primarily two sections. Policy Transactions generated out policy life cycle accounting events and policy commission which are specific to producer or agents business and are generated out of underwriting and some period in policy life cycle. However they are not expected to overlap with policy transactions which excludes any producer or agent specific transactions.

This chapter includes the following topics:

- About Insurance Policy Transaction Dimension Tables
- About Insurance Policy Transactions T2Ts (Result Tables)
- **Policy Commission Tables**
- Deploying Insurance Policy Transactions Tables on Hive
- Populating Insurance Policy Transactions Dimension Tables
- Populating Insurance Policy Transactions T2T Result Tables

Insurance Policy Transactions are about accounting transactions done for a given policy. They are sourced from respective accounting systems in the Insurance Company.

The purpose of Insurance Policy Transactions tables is to store attributes pertaining to policy transactions related data on an 'as-is' basis received from the source system for further operation reporting. OIDF holds for every product processor or contract table, one transaction table.

#### 25.1 **About Insurance Policy Transaction Dimension Tables**

Insurance Policy Transaction Dimension table names and their description are given here.

| Logical Dimension Table Name      | Remarks  |
|-----------------------------------|--|
| Policy Transaction Type Dimension | This table stores the details of various types of policy transactions.   |
| Premium Offset Method Dimension   | This table stores the details about premium offset method. One option is called Premium Offset Plan or POP.  Sample values: AUTOPREMPYMT, LOAN, NETOFFSET, NONE, PARTIAL, etc.   |
| Premium Suspense Reason Dimension | This table stores the details of Premium Suspense Reason code, and documents the reason behind the premium suspense amount recorded in Premium Suspense Amount.  Sample values: BALDUE, LOANINT, MULTIPLE, PREM, and PREMREFUND. |

The mapping details for the Insurance Policy Transaction Dimension tables are given here.

| Map Reference<br>Number | Source Table Name                     | Logical Stage<br>Table Name                           | Dimension Table Name       | Logical Dimension Table Name         |
|-------------------------|---------------------------------------|---|----------------------------|--------------------------------------|
| 693                     | STG_ANNUITY_TXN<br>S                  | Stage Annuity<br>Transactions                         | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 694                     | STG_HEALTH_INS_<br>POLICY_TXNS        | Stage Health<br>Insurance Policy<br>Transactions      | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 695                     | STG_LIFE_INS_POL<br>ICY_TXNS          | Stage Life<br>Insurance Policy<br>Transactions        | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 696                     | STG_PROP_CASU_<br>POLICY_TXNS         | Stage Property and<br>Casualty Policy<br>Transactions | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 697                     | STG_RETIREMENT_<br>ACCOUNTS_TXNS      | Stage Retirement<br>Account<br>Transactions           | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 698                     | STG_REINSURANC<br>E_ISSUED_TXNS       | Stage Reinsurance<br>Issued<br>Transactions           | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 699                     | STG_REINSURANC<br>E_HELD_TXNS         | Stage Reinsurance<br>Held Transactions                | DIM_POLICY_TXN_<br>TYPE    | Policy Transaction Type<br>Dimension |
| 729                     | STG_PREM_OFFSE<br>T_METHOD_MASTE<br>R | Stage Premium<br>Offset Method<br>Master              | DIM_PREM_OFFSE<br>T_METHOD | Premium Offset Method<br>Dimension   |
| 731                     | STG_PREM_SUSP_<br>REASON_MASTER       | Stage Premium<br>Suspense Reason<br>Master            | DIM_PREM_SUSP_<br>REASON   | Premium Suspense<br>Reason Dimension |

#### 25.2 **About Insurance Policy Transactions T2Ts (Result Tables)**

Insurance Policy Transactions T2Ts and their description are given here.

| T2T Name                              | T2T Description   |
|---------------------------------------|---|
| T2T_FCT_POLICY_TRANSACTIONS_HLD       | This T2T stores the reinsurance held transaction details.                 |
| T2T_FCT_POLICY_TRANSACTIONS_ISS       | This T2T stores the reinsurance issued transaction details.               |
| T2T_FPT_STG_RETIREMENT_ACCOUNT S_TXNS | This T2T stores retirement accounts transactions.                         |
| T2T_FPT_STG_PROP_CASU_POLICY_TX<br>NS | This T2T stores the transaction details for property and casualty policy. |
| T2T_FPT_STG_LIFE_INS_POLICY           | This T2T stores the transaction details for life insurance policy.        |
| T2T_FPT_STG_HEALTH_INS_TXNS           | This T2T stores the transaction details for a health insurance policy.    |
| T2T_FPT_STG_ANNUITY_TXNS              | This T2T stores transactions details for annuity contracts.               |

The mapping details for the Insurance Policy Transactions T2Ts are given here.

| Source Table<br>Name                 | Logical Stage<br>Table Name                       | Fact Table Name             | Logical Fact Table<br>Name  | T2T Name                                     |
|--------------------------------------|---|-----------------------------|-----------------------------|--|
| STG_REINSURAN                        | Stage Reinsurance                                 | FCT_POLICY_TR               | Fact Policy                 | T2T_FCT_POLICY_T                             |
| CE_HELD_TXNS                         | Held Transactions                                 | ANSACTIONS                  | Transactions                | RANSACTIONS_HLD                              |
| STG_REINSURAN                        | Stage Reinsurance                                 | FCT_POLICY_TR               | Fact Policy                 | T2T_FCT_POLICY_T                             |
| CE_ISSUED_TXNS                       | Issued Transactions                               | ANSACTIONS                  | Transactions                | RANSACTIONS_ISS                              |
| STG_RETIREMENT<br>_ACCOUNTS_TXN<br>S | Stage Retirement<br>Accounts<br>Transactions      | FCT_POLICY_TR<br>ANSACTIONS | Fact Policy<br>Transactions | T2T_FPT_STG_RETI<br>REMENT_ACCOUNT<br>S_TXNS |
| STG_PROP_CASU<br>_POLICY_TXNS        | Stage Property<br>Casualty Policy<br>Transactions | FCT_POLICY_TR<br>ANSACTIONS | Fact Policy<br>Transactions | T2T_FPT_STG_PROP<br>_CASU_POLICY_TXN<br>S    |
| STG_LIFE_INS_PO                      | Stage Life Insurance                              | FCT_POLICY_TR               | Fact Policy                 | T2T_FPT_STG_LIFE_                            |
| LICY_TXNS                            | Policy Transactions                               | ANSACTIONS                  | Transactions                | INS_POLICY                                   |
| STG_HEALTH_INS<br>_POLICY_TXNS       | Stage Health<br>Insurance Policy<br>Transactions  | FCT_POLICY_TR<br>ANSACTIONS | Fact Policy<br>Transactions | T2T_FPT_STG_HEAL<br>TH_INS_TXNS              |
| STG_ANNUITY_TX                       | Stage Annuity                                     | FCT_POLICY_TR               | Fact Policy                 | T2T_FPT_STG_ANNU                             |
| NS                                   | Transactions                                      | ANSACTIONS                  | Transactions                | ITY_TXNS                                     |

#### 25.3 **Policy Commission Tables**

Policy Commission refers to the compensation for the sale of policies to Producers or Agents. This compensation can be a percentage of premium paid through Agents to Insurance Companies. Many insurance carriers base this commission on various criteria such as Coverage, the product and the marketing methods. A standard commission is a specific dollar amount or percentage commission on the premium set at the time of or advance of the purchase, renewal, and placement or servicing of a particular insurance policy as applicable. Therefore, Commissions are payable to Producers or agents for bringing the business to the Insurance Company. Here, the Insurance policies cover all types of Insurance Contracts for which services are used.

There are two Policy Commission entities. They are, Commission Details and Commission Transactions.

- Stage Policy Commission Details refers to as of date picture of various commission events for a given policy, coverage and commission event type. To arrive at producer or agent level summary one needs to aggregate over given policy for all or specific commission event type. Source of this information is expected to be a underwriting or producer management systems.
- Stage Policy Commission Transactions holds the set of individual transactions incurred or paid for a given policy. Source of this information is expected to be accounting systems.

#### 25.3.1 **About Policy Commission Dimension Tables**

Policy Commission Dimension table names and their remarks are given here.

| Logical Dimension Table Name             | Remarks  |
|--|--|
| Commission Type Dimension                | This table stores general type or category of the commission details.  Sample values: ADV, COMM, DEBT, DEFCOMM, DEFOVER, ERA, ERAOVRD, etc.  |
| Commission Basis Type Dimension          | This table stores the commission basis type, and specifies what rate category is applied to this commission.  Sample values: ANNTYPAYOUTAMT, ASSVAL, ASSVALCHG, COMMPREM, COI, FLAT, FUNDPREM, etc.  |
| Commission Event Type Dimension          | This table stores the commission event type, and the event that triggers generating a commission.  Sample values: ANNIVPOL, CHGSTATUS, APLPREM, SUBMITTED, etc.  |
| Commission Payment Status Dimension      | This table stores the current status of a commission payment details.  Sample values: ACTIVE, CANCELLED, COMPLETE, NOTDONE, HISTORY, PENDING, SUSPENDED, VOID, OTHER, and UNKNOWN.   |
| Commission Transaction Type Dimension    | This table stores the Commission transaction type details. Sample values: ADJ, BONUS, CHRGPAYBLE, CHRGEARNED, COMMEARNED, etc.   |
| Transaction Process Event Type Dimension | This table stores the type of processing this event represents.  Sample values: ORIG, OTHER, REAPPLY, REVERSAL, and UNKNOWN.   |
| Insurance Producer Appointment Dimension | This table stores the Insurance Producer Appointment details.  |
| Commission Option Type Dimension         | This table stores the details of commission option selected for the policy. The commission description, which correlates to the commission code or compensation plan, which the original writing agents choose to be compensated by when the policy was sold. Sample values: OTHER, UNKNOWN, NOTRL, etc. |

The mapping details for the Policy Commission Dimension tables are given here.

| Map Reference | Source Table                          | Logical Stage Table                       | Dimension Table            | Logical Dimension Table Name              |
|---------------|---------------------------------------|---|----------------------------|---|
| Number        | Name                                  | Name                                      | Name                       |   |
| 706           | STG_COMMISION_<br>TYPE_MASTER         | Stage Commission Type Master              | DIM_COMMISION_T<br>YPE     | Commission Type<br>Dimension              |
| 707           | STG_COMMN_BAS                         | Stage Commission                          | DIM_COMMN_BASI             | Commission Basis                          |
|               | IS_TYPE_MASTER                        | Basis Type Master                         | S_TYPE                     | Type Dimension                            |
| 708           | STG_COMMN_EVN                         | Stage Commission                          | DIM_COMMN_EVNT             | Commission Event                          |
|               | T_TYPE_MASTER                         | Event Type Master                         | _TYPE                      | Type Dimension                            |
| 709           | STG_COMMN_PY<br>MNT_STATUS_MA<br>STER | Stage Commission<br>Payment Status Master | DIM_COMMN_PYM<br>NT_STATUS | Commission<br>Payment Status<br>Dimension |

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage Table<br>Name                       | Dimension Table            | Logical Dimension Table Name                   |
|-------------------------|---------------------------------------|---|----------------------------|--|
| 710                     | STG_COMMN_TRA<br>NS_TYPE_MASTE<br>R   | Stage Commission<br>Transaction Type<br>Master    | DIM_COMMN_TRAN<br>S_TYPE   | Commission<br>Transaction Type<br>Dimension    |
| 711                     | STG_TXN_PROC_<br>EVNT_TYPE_MAST<br>ER | Stage Transaction<br>Process Event Type<br>Master | DIM_TXN_PROC_E<br>VNT_TYPE | Transaction Process<br>Event Type<br>Dimension |
| 712                     | STG_COMMN_OPT<br>ION_TYPE_MASTE<br>R  | Stage Commission<br>Option Type Master            | DIM_COMMN_OPTI<br>ON_TYPE  | Commission Option<br>Type Dimension            |

#### **About Policy Commission T2Ts (Result Tables)** 25.3.2

Policy Commission T2Ts and their description are given here.

| T2T Name                        | T2T Description  |
|---------------------------------|--|
| T2T_FCT_POLICY_COMMISSION_DETLS | This T2T stores the policy commission details.             |
| T2T_FCT_POLICY_COMMISSION_TXNS  | This T2T stores the policy commission transaction details. |

Policy Commission T2Ts and their description are given here.

| Source Table<br>Name                  | Logical Stage<br>Table Name                | Fact Table Name                   | Logical Fact<br>Table Name                | T2T Name                            |
|---------------------------------------|--|-----------------------------------|---|-------------------------------------|
| STG_POLICY_C<br>OMMISSION_DE<br>TAILS | Stage Policy<br>Commission<br>Details      | FCT_POLICY_COM<br>MISSION_DETAILS | Fact Policy<br>Commission<br>Details      | T2T_FCT_POLICY_COMM<br>ISSION_DETLS |
| STG_POLICY_C<br>OMMISSION_TX<br>NS    | Stage Policy<br>Commission<br>Transactions | FCT_POLICY_COM<br>MISSION_TXNS    | Fact Policy<br>Commission<br>Transactions | T2T_FCT_POLICY_COMM<br>ISSION_TXNS  |

#### 25.4 **Deploying Insurance Policy Transactions Tables on Hive**

All RDBMS related Insurance Policy Transactions Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

#### 25.5 **Populating Insurance Policy Transactions Dimension Tables**

Follow this SCD process to populate data into any Insurance Policy Transaction Type Dimension table:

## NOTE

You can also follow this SCD process to populate data into any Hive related Insurance Policy Transaction Type Dimension table.

- 1. To populate data into any Insurance Policy Transaction Type Dimension table or Policy Commission Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Insurance Policy Transaction Type Dimension table or Policy Commission Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify Log Files and Check Error Messages.

#### Populating Insurance Policy Transactions T2T Result Tables 25.6

NOTE

As a prerequisite, ensure to load DIM\_STD\_TRANSACTION\_TYPE seeded table.

Follow this T2T process to populate data into Insurance Policy Transactions T2T Result tables:

NOTE

You can also follow this T2T process to populate data into any Hive related Insurance Policy Transactions T2T Result table.

- To populate data into Insurance Policy Transactions T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Insurance Policy Transactions Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

# **General Ledger Data and Management Reporting** 26 **Tables**

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

This chapter includes these topics:

- About GL Data T2T (Result Table)
- About GL to Management Reporting T2T (Result Table)
- About Mapper for GL to Management Reporting Result Table
- Maintaining Mappers for GL to Management Reporting Result Table
- **Prerequisites for Mapper Maintenance**
- **Possible Mapping Combinations**
- Mapping Combinations at Child Hierarchy Level
- 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
- Mapping Combinations at Parent and Child Hierarchy Level
- One Parent to One Reporting Line Code mapping with or without Debit Credit Indicator
- Many Parents to One Reporting Line Code with or without Debit Credit Indicator
- Many Parents to Many Reporting Line Codes with or without Debit Credit Indicator
- Mapping Combinations at Parent Hierarchy Level without Descendants
- Mapping Combinations at Parent Hierarchy Level by Removing one or more Descendants
- Performing Multiple Sets of Mapping Combinations
- Loading Mapper Maintenance from Backend
- Deploying GL to Management Reporting Result Tables on Hive
- Populating GL to Management Reporting T2T Result Tables

A General Ledger is the foundation of a financial system, which is used to store and organize financial data. General Ledgers are used to create the financial statements of a company. A General Ledger account is an account or record used to sort, store and summarize the transactions of a company. Transactions are posted to individual sub-ledger accounts as defined by the chart of accounts of that company. A Legal Entity in the Insurance institution can maintain the same General Ledger data (either solo or consolidated) in one or more source systems.

In OIDF, Stage GL Data stores summarized data at primary granularity of General Ledger whereas various transaction tables store the individual transactions. OFSAA suite of applications expect the consolidation of General Ledger data occurring in the financial systems, and OIDF entities are loaded after consolidation.

#### 26.1 About GL Data T2T (Result Table)

The purpose of GL Data tables is to keep track of its financial transactions and to prepare financial reports. Each account is a unique record that summarizes each type of asset, liability, equity, revenue, and expense. GL Data T2T and its description is given here.

| T2T Name        | T2T Description   |  |
|-----------------|---|--|
| T2T_FCT_GL_DATA | This table stores the transactional Data for GL Repline Code. |  |

The mapping details for the GL Data T2T is given here.

| Source Table | Logical Stage                | Target Table | Logical Fact                | T2T Definition Name |
|--------------|------------------------------|--------------|-----------------------------|---------------------|
| Name         | Table Name                   | Name         | Table Name                  |                     |
| STG_GL_DATA  | Stage General<br>Ledger Data | FCT_GL_DATA  | Fact General<br>Ledger Data | T2T_FCT_GL_DATA     |

#### 26.2 **About GL to Management Reporting T2T (Result Table)**

The purpose of GL to Management Reporting tables is to provide a detailed description of every general ledger account and the transactions that make up the balance in that account. The general ledger holds all the financial information used to create the income statement and balance sheet reports, and serves several main purposes in the financial operation of the business.

GL to Management Reporting T2T and its description is given here.

| T2T Name                               | T2T Description  |
|--|--|
| T2T_FCT_MGMT_REPORTING_STG_GL<br>_DATA | This T2T stores management reporting data related to organization and product profitability, income statement and balance sheet. |

The mapping details for the GL to Management Reporting T2T is given here.

| Source Table<br>Name | Mapper Table Name | Target Table Name | T2T Definition Name         |
|----------------------|-------------------|-------------------|-----------------------------|
| STG_GL_DA            | MAP_GL_CODE_REP   | FCT_MGMT_REPORTI  | T2T_FCT_MGMT_REPORTING_STG_ |
| TA                   | _LINE             | NG                | GL_DATA                     |

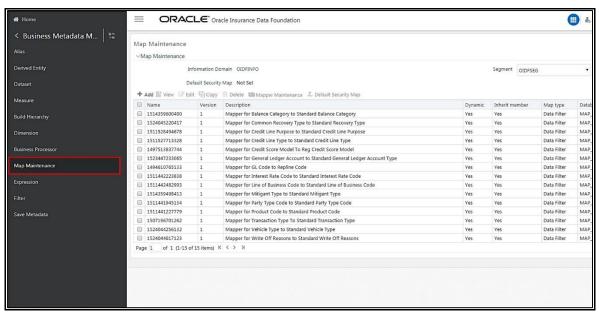
#### **About Mapper for GL to Management Reporting Result Table** 26.3

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.

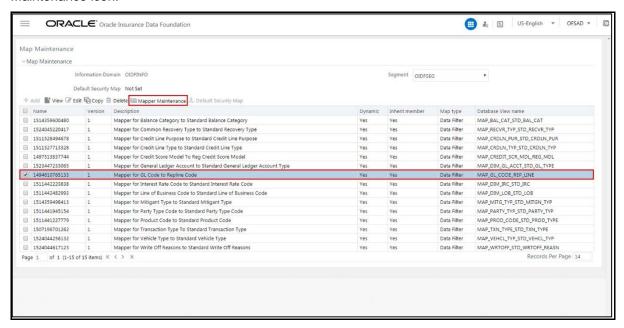
# 26.4 Maintaining Mappers for GL to Management Reporting Result Table

To maintain Mappers through the Map Maintenance component of OFSAAI:

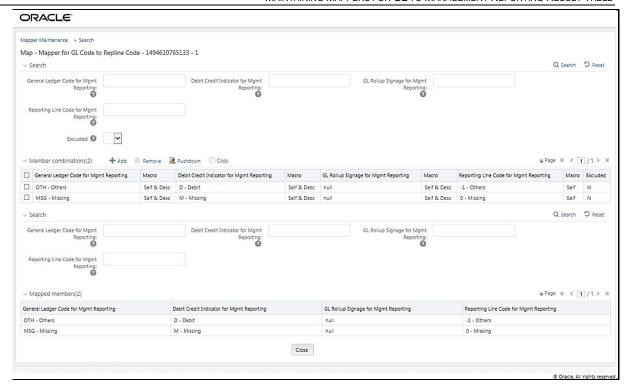
1. Go to OFSAAI > Oracle Insurance Data Foundation > Unified Analytical Metadata > Business Metadata Management > Map Maintenance. The Map Maintenance page appears.



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.



#### 26.4.1 **Prerequisites for Mapper Maintenance**

Perform these prerequisite steps for maintaining Mappers:

- 1. Through the SCD process, load the GL Dimension table.
- 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

#### 26.4.2 **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.

#### 26.4.2.1 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:

#### 26.4.2.1.1 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.

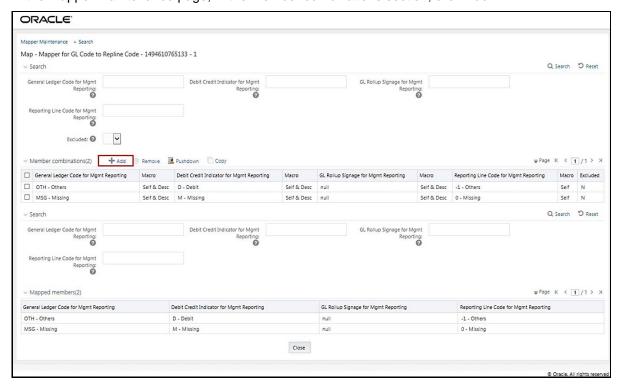
## **NOTE**

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

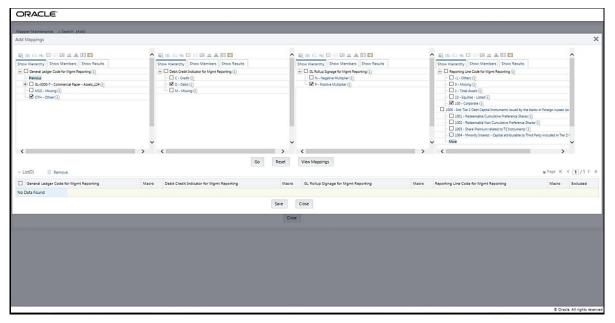
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

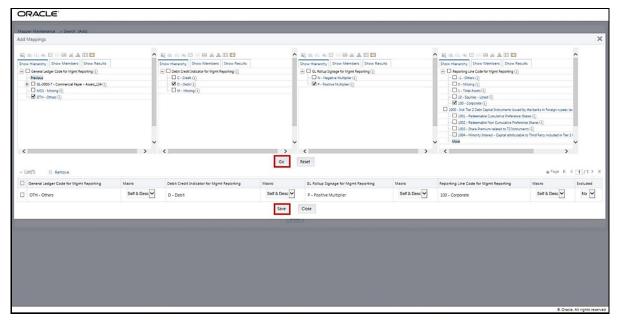
1. In the Mapper Maintenance page, in the Member combinations section, click Add.



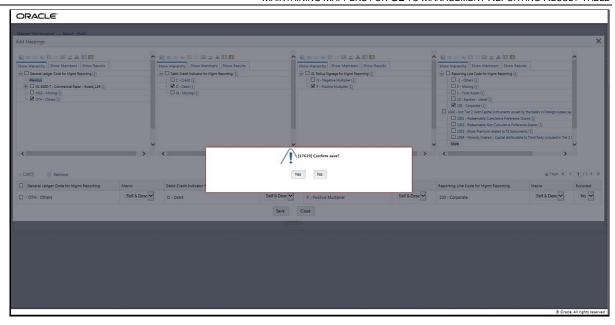
2. The Add Mappings pop-up page appears. For illustration, select the member of the General Ledger Code for Mgmt Reporting hierarchy OTH - Others, and the member of the Debit Credit Indicator for Mgmt Reporting hierarchy D - Debit to map to the member of the Reporting Line Code for Mgmt Reporting hierarchy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



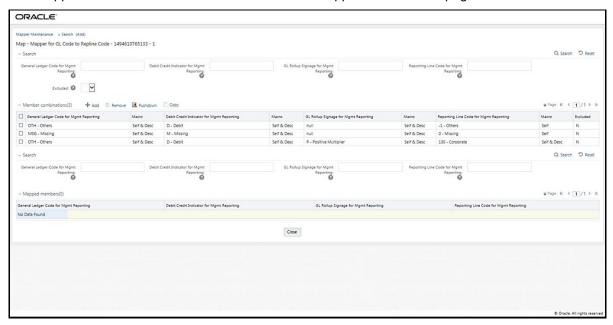
**3.** To map the members, click Go. The list of mapped members appear at the bottom. To save the mappings, click Save.



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.



# 26.4.2.1.2 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.

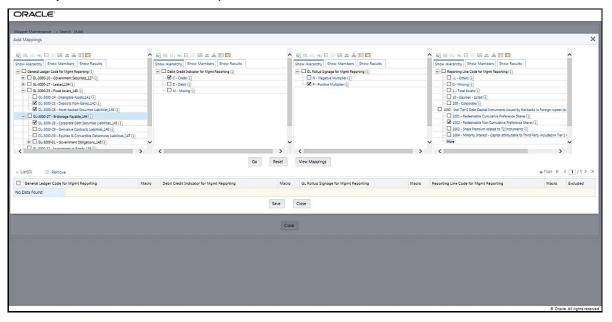
#### NOTE

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:

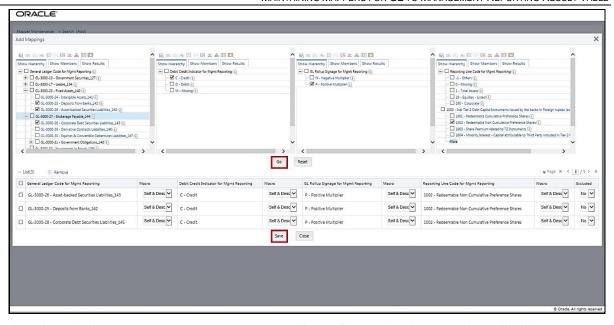
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

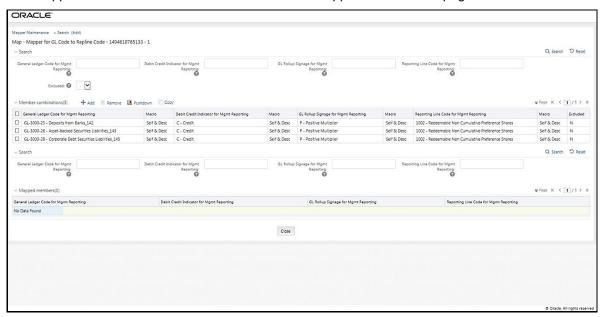
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select the child members of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-26 Asset-backed Securities Liabilities\_143 and GL-3000-28 Corporate 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.



## 26.4.2.1.3 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.

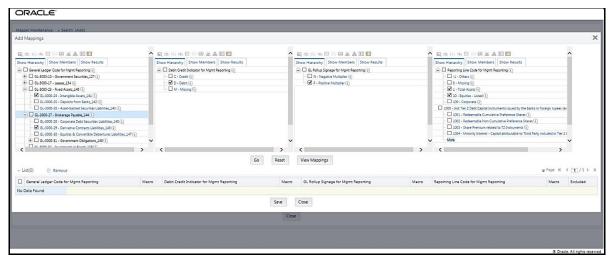
#### NOTE

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:

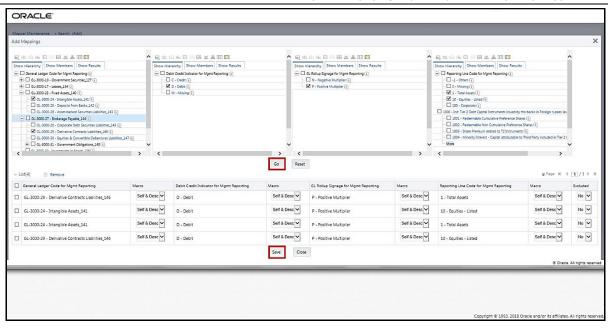
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

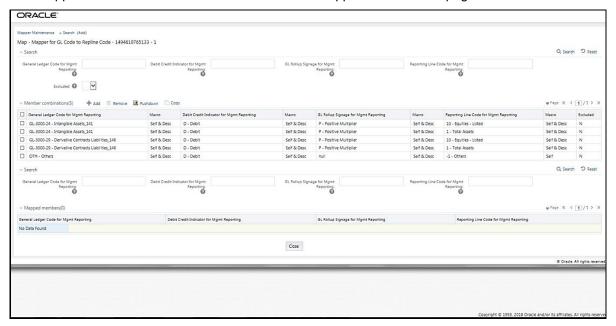
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select the child members of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-24 Intangible Assets\_141 and GL-3000-29 Derivative Contracts Liabilities\_145, 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.



# 26.4.2.2 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:

# 26.4.2.2.1 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.

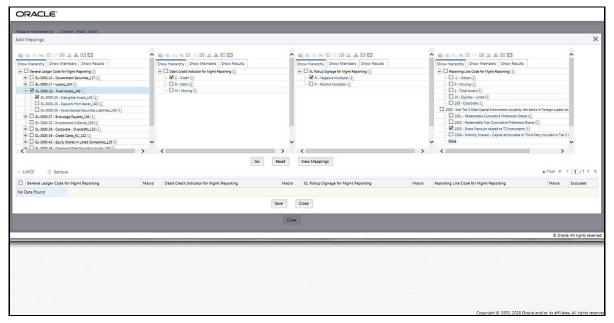
#### **NOTE**

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:

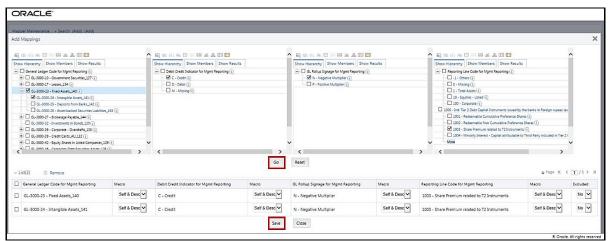
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

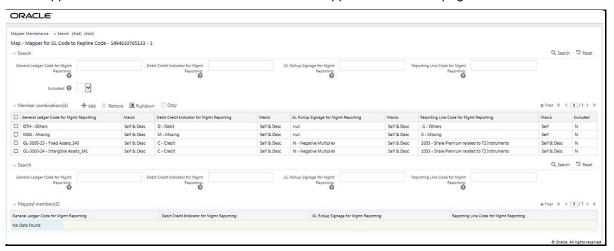
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-23 Fixed Assets\_140 and its child member GL-3000-24 Intangible Assets\_141, 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.



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.



# 26.4.2.2.2 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.

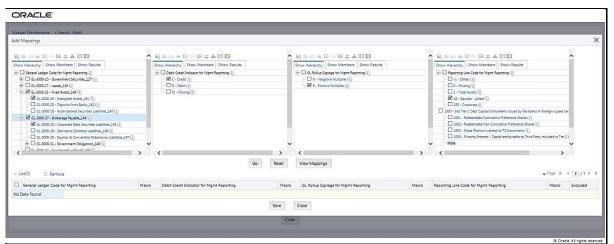
NOTE

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:

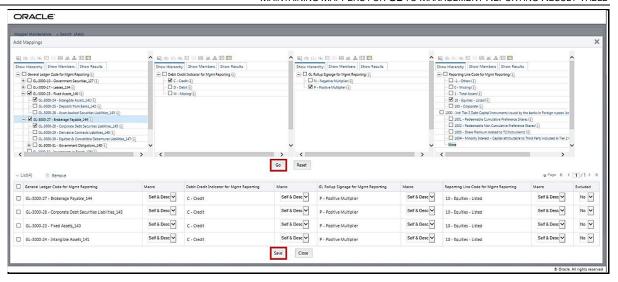
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

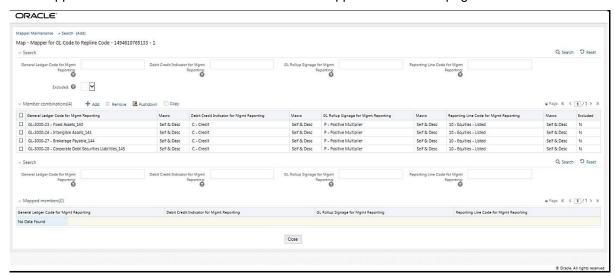
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select parent members of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-23 Fixed Assets\_140 and GL-3000-27 Brokerage Payable\_144, and their 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.



## 26.4.2.2.3 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.

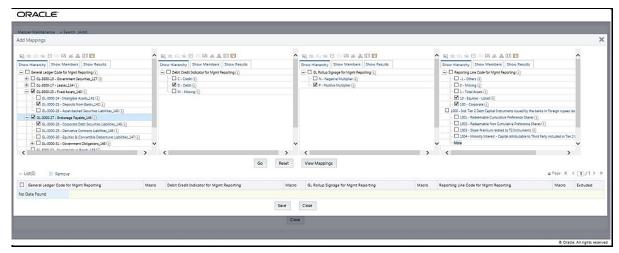
**NOTE** 

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:

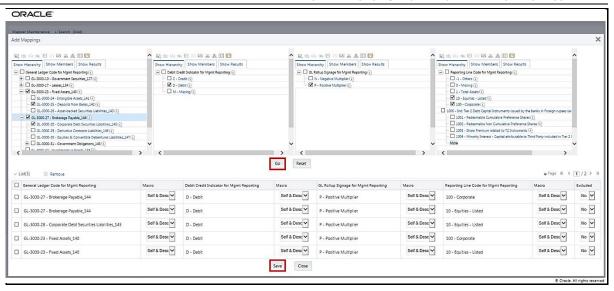
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

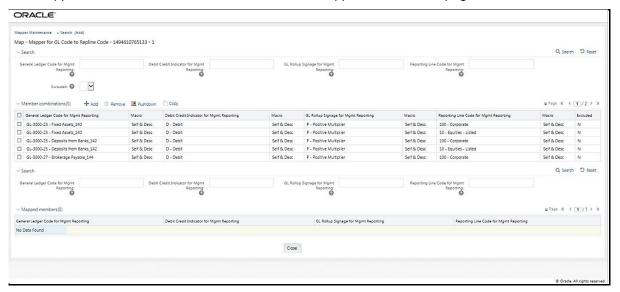
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select parent members of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-23 Fixed Assets\_140 and GL-3000-27 Brokerage Payable\_144, and their 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.



# 26.4.2.3 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.

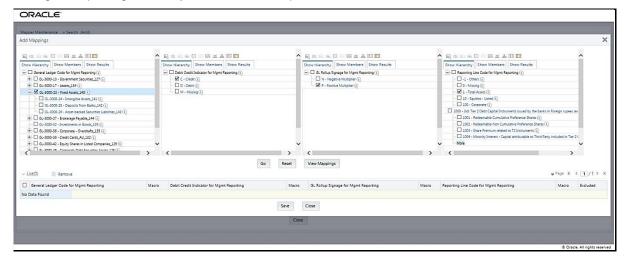
#### NOTE

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:

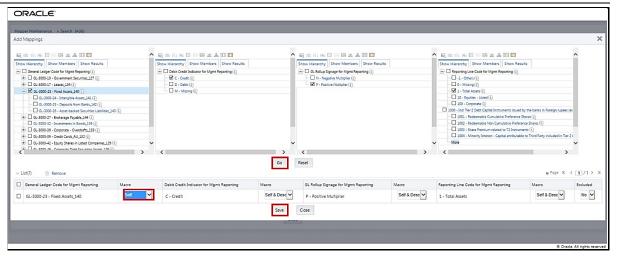
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

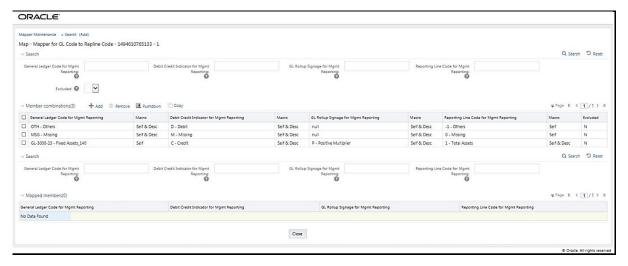
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy GL-3000-23 Fixed Assets\_140, and the member of the Debit Credit Indicator 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.



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.



# 26.4.2.4 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.

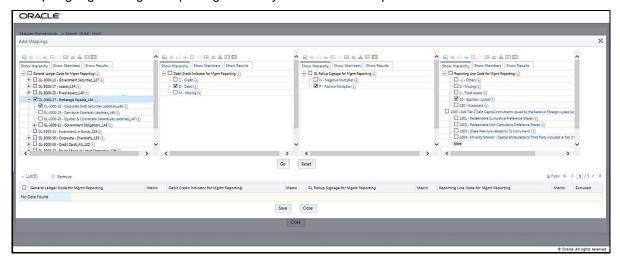
#### NOTE

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:

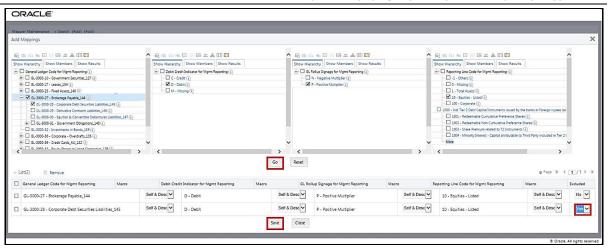
- The value must be M, when you map GL Code to the Missing (MSG) member. If nothing is mapped, the system automatically sets value to M.
- The value must be D, when you map GL Code to the Debit member.
- The value must be C, when you map GL Code to the Credit member.

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

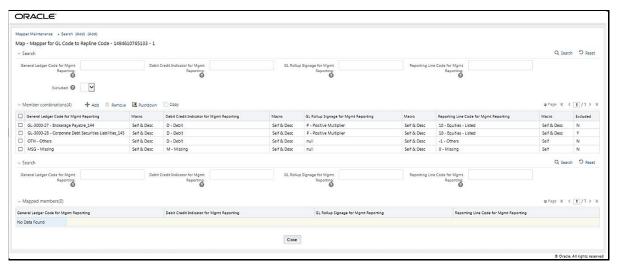
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy GL-3000-27 Brokerage Payable\_144 and its child member (Descendant) GL-3000-28 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.



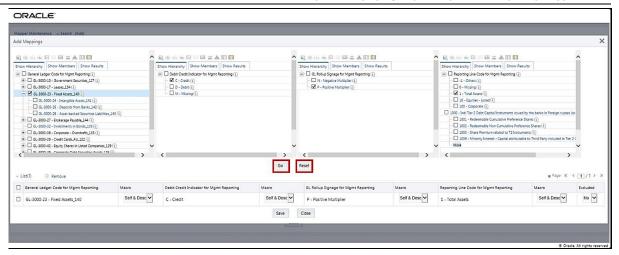
- 4. An acknowledgement pop-up message appears. To confirm saving the mappings, click Yes.
- The mapped member combinations are listed in the Mapper Maintenance page with the Macro value of GL Code as Self.



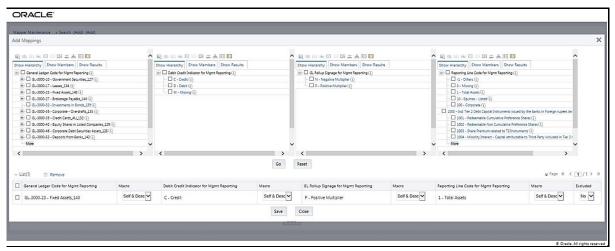
# **26.4.3 Performing Multiple Sets of Mapping Combinations**

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

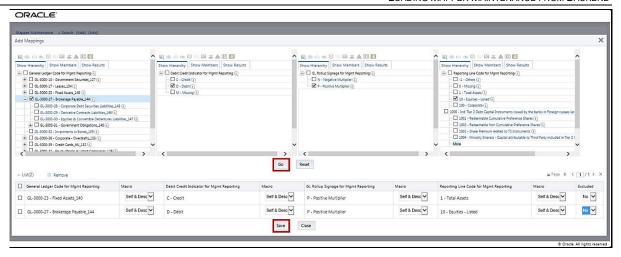
- 1. In the Mapper Maintenance page, in the Member combinations section, click Add.
- 2. The Add Mappings pop-up page appears. For illustration, select one parent member of the General Ledger Code for Mgmt Reporting hierarchy, GL-3000-23 Fixed Assets\_140, and the member of the Debit Credit Indicator 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.



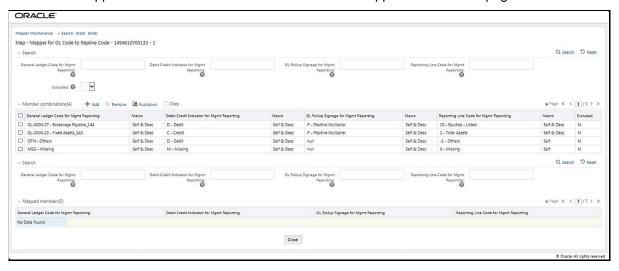
3. The mapping selections clear.



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.



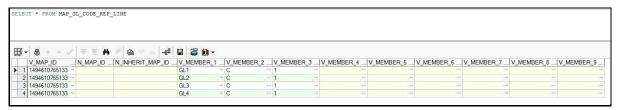
- 5. An acknowledgement pop-up message appears. To confirm saving the mappings, click Yes.
- 6. Both set of mapped member combinations are listed in the Mapper Maintenance page.



# 26.5 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 194610765133, 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 must be C or D or M).
- V\_MEMBER\_3 = Reporting Line Code (values from DIM\_REP\_LINE.N\_REP\_LINE\_CD).



**NOTE** 

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

# 26.6 Deploying GL Data and GL to Management Reporting Result Tables on Hive

All RDBMS related GL Data and GL to Management Reporting Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

# 26.7 Populating GL Data and GL to Management Reporting T2T Result Tables

Follow this T2T process to populate data into GL Data and GL to Management Reporting T2T Result tables:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related GL to Management Reporting T2T Result table.

- 1. To populate data into any GL Data and GL to Management Reporting T2T Result tables, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the GL Data and GL to Management Reporting Result tables, follow the procedure <a href="#">Check the Batch Execution Status of T2T</a>.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and Check Error Messages.

#### 27 **Insurance Claims Tables**

This section provides information about Insurance Claims tables in the Oracle Insurance Data Foundation application and step-by step instructions to use this section.

This section includes the following topics:

- **About Insurance Claims Dimension Tables**
- About Insurance Claims T2T (Result Table)
- **Deploying Insurance Claims Tables on Hive**
- Populating Insurance Claims Dimension Tables
- Populating Insurance Claims T2T Result Tables

An insurance claim is a formal request to an Insurance Company for coverage or compensation for a covered loss or policy event. The Insurance Company validates the claim and, once approved, issues payment to the insured or an approved interested party on behalf of the insured.

OIDF sources data from claim systems, meaning, once claim is generated.

Claim Tables holds the summary of claim process so far covering various claims dates, latest status of claim, and various claim amounts.

#### 27.1.1 **About Insurance Claims Dimension Tables**

Insurance Claims Dimension table names and their description are given here.

| Logical Dimension Table Name          | Dimension Table Description  |
|---------------------------------------|--|
| Dimension Claim Refusal Reason        | This table stores the list of all the reasons for which a claim can be refused by the entity.  |
| Dimension Claim Status                | This table stores the list of all status codes and descriptions, which are applicable for a claim transaction.   |
| Claim Dimension                       | This table stores the list of all claims.  |
| Claim Referral Reason Dimension       | This table stores different referral reasons for a claim.  |
| Claim Feature Dimension               | This tables stores feature details that describes an aspect of a claim for injuries to a person.   |
| Claim Feature Status Dimension        | This table stores the status of a claim feature, based on which various calculations changes.  |
| Claim Reopening Reason Type Dimension | This table stores the reopening reason type.  Sample values: R1 – Mathematical or computational mistake, R2 – Inaccurate data entry, D0 – Changes in service date, E0 – Change in patient status, etc. |

The mapping details for the Insurance Claims Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage<br>Table Name                    | Dimension Table               | Logical Dimension Table<br>Name          |
|-------------------------|--|--|-------------------------------|--|
| 233                     | STG_CLAIM_REF<br>USAL_REAS_MAS<br>TER  | Stage Claim Refusal<br>Reason Master           | DIM_CLAIM_REFU<br>SAL_REASON  | Dimension Claim Refusal<br>Reason        |
| 234                     | STG_CLAIM_STAT<br>US_MASTER            | Stage Claim Status<br>Master                   | DIM_CLAIM_STAT<br>US          | Dimension Claim Status                   |
| 239                     | STG_CLAIM_DET<br>AILS                  | Stage Claim Details                            | DIM_CLAIM                     | Claim Dimension                          |
| 242                     | STG_CLAIM_REF<br>ERRAL_REAS_MA<br>STER | Stage Claim Referral<br>Reason                 | DIM_CLAIM_REFE<br>RRAL_REASON | Claim Referral Reason<br>Dimension       |
| 599                     | STG_CLAIM_FEAT<br>URE_MASTER           | Stage Claim Feature<br>Master                  | DIM_CLAIM_FEAT<br>URE         | Claim Feature Dimension                  |
| 605                     | STG_CLAIM_FEAT<br>URE_STTS_MAST<br>ER  | Stage Claim Feature<br>Status Master           | DIM_CLAIM_FEAT<br>URE_STATUS  | Claim Feature Status<br>Dimension        |
| 648                     | STG_CLM_REOPE<br>N_RSN_TYPE_MA<br>STER | Stage Claim<br>Reopening Reason<br>Type Master | DIM_CLM_REOPE<br>N_RSN_TYPE   | Claim Reopening Reason<br>Type Dimension |

# 27.1.2 About Insurance Claims T2T (Result Table)

Insurance Claims T2T and its description is given here.

| T2T Name                       | T2T Description   |
|--------------------------------|---|
| T2T_FCT_CLAIM_DETAILS          | This T2T stores all the attributes of a policy claims paid until date along with the summary of transactions. |
| T2T_FCT_CLAIM_CLAIMANT_MAPPING | This T2T stores the details of all the claimants involved in a claim process.                                 |
| T2T_FCT_CLAIM_TRANSACTIONS     | This T2T stores all the transactions related to claims reported with the entity.                              |

The mapping details for the Insurance Claims T2T is given here.

| Source Table<br>Name  | Logical Stage<br>Table Name | Fact Table Name       | Logical Fact<br>Table Name | T2T Name           |
|-----------------------|-----------------------------|-----------------------|----------------------------|--------------------|
| STG_CLAIM_DE<br>TAILS | Stage Claim Details         | FCT_CLAIM_DETAIL<br>S | Fact Claim Details         | T2T_FCT_CLAIM_DETA |
| STG_CLAIM_CLA         | Stage Claim                 | FCT_CLAIM_CLAIM       | Fact Claim                 | T2T_FCT_CLAIM_CLAI |
| IMANT                 | Claimant                    | ANT_MAPPING           | Claimant Mapping           | MANT_MAPPING       |
| STG_CLAIM_TX          | Stage Claim                 | FCT_CLAIM_TRANS       | Fact Claim                 | T2T_FCT_CLAIM_TRAN |
| NS                    | Transactions                | ACTION                | Transaction                | SACTIONS           |

## 27.2 Deploying Insurance Claims Tables on Hive

All RDBMS related Insurance Claims Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 27.3 Populating Insurance Claims Dimension Tables

Follow this SCD process to populate data into any Insurance Claims Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Insurance Claims Dimension table.

- 1. To populate data into any Insurance Claims Dimension table, execute the SCD batch. For a detailed procedure, see <a href="Slowly Changing Dimension">Slowly Changing Dimension</a> (SCD) Process.
- 2. To check the SCD batch execution status of an Insurance Claims Dimension table, follow the procedure Check the Execution Status of the SCD Batch.
- 3. To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 27.4 Populating Insurance Claims T2T Result Tables

Follow this T2T process to populate data into any Insurance Claims T2T Result table:

NOTE

You can also follow this T2T process to populate data into any Hive related Insurance Claims T2T Result table.

- 1. To populate data into any Insurance Claims T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Insurance Claims Result tables, follow the procedure Check the Batch Execution Status of T2T.
- To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and Check Error Messages.

#### **Actuarial Assumptions Tables** 28

This chapter provides information about Insurance Actuarial Policy Summary, Mortality and Morbidity tables, and various Insurance Lapse Rate Assumptions Result tables in the Oracle Insurance Data Foundation Application.

This chapter includes the following topics:

- **Actuarial Assumptions Dimension Tables**
- **Financial Assumptions Tables** 
  - Interest Rate Curve Dimension Table
  - Insurance Lapse Rate Assumptions Table
  - Insurance Cost of Living Adjustments Table
  - **Premium Rate Tables**
- **Demographic Assumptions Tables** 
  - Insurance Mortality and Morbidity Tables
- **Deploying Actuarial Assumptions Tables on Hive**
- Populating Actuarial Assumptions Dimension Tables
- Populating Actuarial Assumptions T2T Result Tables

An actuarial assumption is an estimate of an uncertain variable input into a financial model, normally for the purposes of calculating premiums or benefits.

#### 28.1 **Actuarial Assumptions Dimension Tables**

Actuarial Assumption Dimension table names and their description are given here.

| Logical Dimension Table Name   | Remarks   |
|--------------------------------|---|
| Actuarial Assumption Dimension | This table stores the name of the set of Actuarial Assumptions used for valuations. While Actuarial valuation code can remain same, parameters for the same can change for different valuation dates. |
| Premium Rate Dimension         | This table stores the details of Premium rate. Premium tables provide premium rate for a given premium basis amount.  |

The mapping details for the Actuarial Assumption Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage<br>Table Name          | Dimension Table            | Logical Dimension Table Name      |
|-------------------------|---------------------------------------|--------------------------------------|----------------------------|-----------------------------------|
| 683                     | STG_ACTUARIA<br>L_ASSUMPTN_<br>MASTER | Stage Actuarial<br>Assumption Master | DIM_ACTUARIAL_<br>ASSUMPTN | Actuarial Assumption<br>Dimension |

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage<br>Table Name  | Dimension Table Name       | Logical Dimension Table Name |
|-------------------------|---------------------------------------|------------------------------|----------------------------|------------------------------|
| 733                     | STG_PREMIUM<br>_RATE_TABLE_<br>MASTER | Stage Premium<br>Rate Master | DIM_PREMIUM_R<br>ATE_TABLE | Premium Rate Dimension       |

There are two types of Insurance Actuarial Assumptions tables:

- Financial Assumptions tables
- Demographic Assumptions tables

# 28.2 Financial Assumptions Tables

Financial assumptions evaluates the projected benefits of Party or organization in a certain plan. These financial assumptions include assumptions about interest rates, and lapse rate assumptions.

### Insurance Lapse Rate Assumptions

Insurance Lapse Rate is the rate at which insurance policy terminates because of the failure in premium payment by the policyholder. The Insurance Lapse Rate Assumptions table stores the insurance lapse rates to be used for assessment of insurance policies. The lapse rate group code binds multiple lapse rates under one heading.

The purpose of the Insurance Lapse Rate Assumptions table is that the Insurers can set premiums which results in high or low-priced product.

#### Interest Rate Curve (IRC)

Interest Rate Curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates.

Financial Assumptions includes Insurance Lapse Rate Assumptions and Interest Rate Curve (IRC).

## 28.2.1 Interest Rate Curve Tables

#### 28.2.1.1 About Interest Rate Curve Dimension Table

Interest Rate Curve Dimension table name and its description is given here.

| Logical Dimension Table Name  | Remarks  |
|-------------------------------|--|
| Interest Rate Curve Dimension | This table stores the interest rate curve definitions. |

The mapping details for the Interest Rate Curve Dimension tables is given here.

| Map Reference<br>Number | Source Table<br>Name | Logical Stage<br>Table Name  | Dimension Table | Logical Dimension Table Name  |
|-------------------------|----------------------|------------------------------|-----------------|-------------------------------|
| 246                     | STG_IRCS             | Stage Interest Rate<br>Curve | DIM_IRC         | Interest Rate Curve Dimension |

## 28.2.2 Insurance Lapse Rate Assumptions Table

## 28.2.2.1 About Insurance Lapse Rate Assumptions T2T (Result Table)

Insurance Lapse Rate Assumptions T2T and its description is given here.

| T2T name                       | T2T Description  |
|--------------------------------|--|
| T2T_FCT_LAPSE_RATE_ASSUMPTIONS | This T2T stores the insurance lapse rates, which is used for valuation of insurance policies. This T2T stores the lapse rate group code that binds multiple lapse rates under one heading. |

The mapping details for the Insurance Lapse Rate Assumptions T2T is given here.

| Source Table<br>Name              | Logical Stage<br>Table Name    | Fact Table Name                | Logical Fact Table Name        | T2T Name                           |
|-----------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------------|
| STG_INSURANC<br>E_LAPSE_R<br>ATES | Stage Insurance<br>Lapse Rates | FCT_LAPSE_RAT<br>E_ASSUMPTIONS | Fact Lapse Rate<br>Assumptions | T2T_FCT_LAPSE_RATE<br>_ASSUMPTIONS |

## 28.2.3 Insurance Cost of Living Adjustment Tables

The Insurance Cost of Living Adjustment Dimension table is used to determine the retirement, annuity or other similar benefits. The methodology identifies a benchmark and based on benchmark movements, adjustment of living costs are published either by the government agency or the insurer.

## 28.2.3.1 About Insurance Cost of Living Adjustment Dimension Table

Insurance Cost of Living Adjustment Dimension table name and its description are given here.

| Logical Dimension Table Name        | Remarks   |
|-------------------------------------|---|
| Cost of Living Adjustment Dimension | This table stores the code and benchmark details for Cost of Living Adjustments definition. |

The mapping details for the Insurance Cost of Living Adjustment Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name               | Logical Stage<br>Table Name                  | Dimension Table         | Logical Dimension Table Name           |
|-------------------------|------------------------------------|--|-------------------------|--|
| 682                     | STG_COLA_ADJ<br>USTMENT_MAS<br>TER | Stage Cost of<br>Living Adjustment<br>Master | DIM_COLA_ADJU<br>STMENT | Cost of Living Adjustment<br>Dimension |

## 28.2.3.2 About Insurance Cost of Living Adjustment T2T (Result Table)

Insurance Cost of Living Adjustment T2T and its description are given here.

| T2T name                          | T2T Description  |
|-----------------------------------|--|
| T2T_FCT_COLA_ADJUSTMENT_SCHED ULE | This T2T stores the Cost of Living Adjustments for a given COLA definition and year of adjustment details. They are used to determine the retirement, annuity or similar other benefits. |

The mapping details for the Insurance Cost of Living Adjustment T2T are given here.

| Source Table<br>Name                 | Logical Stage<br>Table Name                    | Fact Table Name                      | Logical Fact<br>Table Name                    | T2T Name                             |
|--------------------------------------|--|--------------------------------------|---|--------------------------------------|
| STG_COLA_ADJ<br>USTMENT_SCHE<br>DULE | Stage Cost of<br>Living Adjustment<br>Schedule | FCT_COLA_ADJU<br>STMENT_SCHED<br>ULE | Fact Cost of Living<br>Adjustment<br>Schedule | T2T_FCT_COLA_ADJUS<br>TMENT_SCHEDULE |

## 28.2.4 Premium Rate Tables

When a person applies for a Life Insurance policy, their insurance company examines the results of their physical examination, their family health history, and lifestyle to determine if they fit into one of their standard categories or classifications.

For example, different types of categories are:

- Preferred Select: This classification usually refers to the very healthy. In order to qualify for this level, you need to have a normal weight and height as well as no family factors that could lead to an early death. This category enjoys the lowest premiums and may also be called Preferred Elite or Preferred Plus.
- Standard Plus: These applicants are still in great health but a medical or lifestyle factor prevents them from qualifying for a Preferred Select. Being overweight, having high blood pressure or cholesterol issues could be the culprit.
- **Standard**: This is for everyone who is average when it comes to heath. They have a normal life expectancy and could have weight issues or a parent that died early.
- **Preferred Smoker**: If you are a smoker who would normally fall into the preferred select category, this is where you will fall. Smokers will always pay more for life insurance so be prepared for a higher premium.
- Standard Smoker: A smoker who would fall into the standard category if they didn't smoke will be
  placed in this category.

When the Life Insurance applicant does not fit into one of the standard rating categories due to a health issue, risky occupation, or an adventurous lifestyle (think skydivers, rock climbers etc.), they may end up with a table rating. Such records are categorized and stored in Premium Rate tables.

For information on how the risk factors affects the Insurance Underwriting of a Life Insurance applicant, see <u>Insurance Underwriting Tables for Risk Analysis</u>.

### 28.2.4.1 About Premium Rate Dimension Table

Premium Rate Dimension table name and its remarks are given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| Premium Rate Dimension       | This table stores the details of Premium rate. Premium tables provide premium rate for a given premium basis amount. |

The mapping details for the Premium Rate Dimension table is given here.

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage Table<br>Name  | Dimension Table            | Logical Dimension Table Name |
|-------------------------|---------------------------------------|------------------------------|----------------------------|------------------------------|
| 733                     | STG_PREMIUM_R<br>ATE_TABLE_MAST<br>ER | Stage Premium Rate<br>Master | DIM_PREMIUM_RAT<br>E_TABLE | Premium Rate<br>Dimension    |

## 28.2.4.2 About Premium Rate T2T (Result Table)

Premium Rate T2T name and its description are given here.

| T2T Name                        | T2T Description                                 |
|---------------------------------|---|
| T2T_FCT_PREMIUM_RATE_TABLE_DTLS | This T2T stores the Premium Rate table details. |

The mapping details for the Premium Rate T2T is given here.

| Source Table<br>Name                | Logical Stage<br>Table Name         | Fact Table Name                 | Logical Fact<br>Table Name         | T2T Name                            |
|-------------------------------------|-------------------------------------|---------------------------------|------------------------------------|-------------------------------------|
| STG_PREMIUM_<br>RATE_TABLE_DT<br>LS | Stage Premium Rate<br>Table Details | FCT_PREMIUM_R<br>ATE_TABLE_DTLS | Fact Premium Rate<br>Table Details | T2T_FCT_PREMIUM_RA<br>TE_TABLE_DTLS |

# 28.3 Demographic Assumptions Tables

Demographic assumptions evaluates the projected benefits of all the party or organization in a certain plan. These demographic assumptions include assumptions about mortality, disability, termination of employment, and retirement.

Demographic Assumptions includes:

Insurance Mortality

The Insurance Mortality is the amount charged by the Insurer for delivering the guaranteed Sum Assured on premature death of the policyholder.

The purpose of the Insurance Mortality table is to store the sum charged every year by the Insurer to the policyholder to deliver the life cover.

Insurance for Morbidity

Morbidity on insurance terms is the insurance coverage provided by the insurer to the policyholder for the specified illness of the policyholder.

#### **Insurance Mortality and Morbidity Tables** 28.3.1

#### 28.3.1.1 **About Insurance Mortality and Morbidity Dimension Tables**

Insurance Mortality and Morbidity Dimension table names and their description are given here.

| Logical Dimension Table Name             | Remarks  |
|--|--|
| Insurance Morbidity Dimension            | This table stores the morbidity rates. It is a statistical table used by actuaries in determining the incidence of illnesses and accidents and the longevity of the disability resulting there from. This is used in computing policy premiums and reserves.   |
| Insurance Mortality Dimension            | This table stores the mortality table required for insurance carriers. A 'Mortality Table' is the one that shows the rate of deaths occurring in a defined population during a selected time interval, or survival from birth to any given age. Statistics included in the mortality table show the probability of a person's death before their next birthday based on their age. Also known as period table, this is based on the mortality experience of a population during a relatively short period of time. |
| Insurance Mortality Multiplier Dimension | This table stores the mortality multipliers' names. Multipliers are generally calculated to reflect more accurate estimation of mortality depending on growth in population and given rate of return.  |

The mapping details for the Insurance Mortality and Morbidity Dimension tables is given here.

| Map Reference<br>Number | Source Table<br>Name                  | Logical Stage<br>Table Name                       | Dimension Table                  | Logical Dimension Table Name                |
|-------------------------|---------------------------------------|---|----------------------------------|---|
| 424                     | STG_INS_MOR<br>BIDITY_MASTE<br>R      | Stage Insurance<br>Morbidity Master               | DIM_INS_MORBID ITY               | Insurance Morbidity Dimension               |
| 425                     | STG_INS_MORT<br>ALITY_MASTER          | Stage Insurance<br>Mortality Master               | DIM_INS_MORTAL ITY               | Insurance Mortality Dimension               |
| 684                     | STG_INS_MORT<br>ALITY_MULT_M<br>ASTER | Stage Insurance<br>Mortality Multiplier<br>Master | DIM_INS_MORTAL<br>ITY_MULTIPLIER | Insurance Mortality Multiplier<br>Dimension |

#### 28.3.1.2 **About Insurance Mortality and Morbidity T2Ts (Result Tables)**

Insurance Mortality and Morbidity T2Ts and their description are given here.

| T2T Name                         | T2T Description  |
|----------------------------------|--|
| T2T_FCT_INSURANCE_MORTALITY      | This T2T stores the sum charged every year by the Insurer to the policyholder to deliver the life cover.   |
| T2T_FCT_INSURANCE_MORBIDITY      | This T2T stores details of morbidity rates, which is actual age, survival probabilities etc., related to particular mortality tables.  |
| T2T_FCT_INS_MORTALITY_MULT_D TLS | This T2T stores the mortality multipliers. Multipliers are generally calculated to reflect more accurate estimation of mortality depending on growth in population and given rate of return. |

The mapping details for the Insurance Mortality and Morbidity T2Ts are given here.

| Source Table<br>Name                | Logical Stage<br>Table Name                        | Fact Table Name                 | Logical Fact Table<br>Name                        | T2T Name                            |
|-------------------------------------|--|---------------------------------|---|-------------------------------------|
| STG_INSURANC                        | Stage Insurance                                    | FCT_INSURANCE                   | Fact Insurance                                    | T2T_FCT_INSURANCE_                  |
| E_MORTALITY                         | Mortality  | _MORTALITY                      | Mortality   | MORTALITY                           |
| STG_INSURANC                        | Stage Insurance                                    | FCT_INSURANCE                   | Fact Insurance                                    | T2T_FCT_INSURANCE_                  |
| E_MORBIDITY                         | Morbidity  | _MORBIDITY                      | Morbidity   | MORBIDITY                           |
| STG_INS_MORT<br>ALITY_MULT_DT<br>LS | Stage Insurance<br>Mortality Multiplier<br>Details | FCT_INS_MORTA<br>LITY_MULT_DTLS | Fact Insurance<br>Mortality Multiplier<br>Details | T2T_FCT_INS_MORTALI<br>TY_MULT_DTLS |

#### **Deploying Actuarial Assumptions Tables on Hive** 28.4

All RDBMS related Actuarial Assumptions Result tables (Insurance Lapse Rate Assumptions, Mortality, and Morbidity Result tables) can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### **Populating Actuarial Assumptions Dimension Tables** 28.5

Follow this SCD process to populate data into any Actuarial Assumptions Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Actuarial Assumptions Dimension table.

- 1. To populate data into any Actuarial Assumptions Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Actuarial Assumptions Dimension table, follow the procedure Check the Execution Status of the SCD Batch.

**3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 28.6 Populating Actuarial Assumptions T2T Result Tables

Follow this T2T process to populate data into any Actuarial Assumptions T2T Result table (Insurance Lapse Rate Assumptions, Interest Rate Curve, Cost of Living Adjustments, Mortality, and Morbidity Result tables):

NOTE

You can also follow this T2T process to populate data into any Hive related Actuarial Assumptions T2T Result table.

- 1. To populate data into any Actuarial Assumptions T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - c. Save the Run Parameters.
  - **d.** Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Actuarial Assumptions Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

#### 29 **Actuarial Output Tables**

This chapter provides information about Actuarial Outputs such as Actuarial Cash Flows, Calculations, and Result Areas in the Oracle Insurance Data Foundation application.

This chapter includes the following topics:

- **About Actuarial Assumed Policy Summary**
- About Actuarial Cash Flows, Calculations, and Result Areas Summary Tables
- **About Financial Element Dimension Table**
- About Insurance Scenario Dimension Table
- About Insurance Vintage Dimension Table
- About Fact Insurance Policy Cash Flow T2T (Result Table)
- Deploying Actuarial Cash Flows, Calculations, and Result Areas Summary Tables on Hive
- Populating Actuarial Cash Flows, Calculations, and Result Areas Summary Dimension Tables
- Populating Actuarial Cash Flows, Calculations, and Result Areas Summary T2T Result Tables

#### **29.1 About Actuarial Assumed Policy Summary**

The Actuarial Assumed Policy Summary table stores the cash flow of all the reinsurance policies in an aggregated level for the purpose of reporting the summary. The result table is:

FCT ACT ASSUMED POLICY SMMRY

For the Fact Actuarial Assumed Policy Summary table, the data is sourced from the Actuarial engine.

### About Actuarial Cash Flows, Calculations, and Result Areas **29.2 Summary Tables**

Actuarial Cash Flows, Calculations, and Result Areas Summary tables store attributes pertaining to insurance cash flows, calculations, and Result Areas related data on an 'as-is' basis received from the source system. The data is populated in the following Dimension tables through Seeded Data. Dimension table names and their description are given here.

| Dimension Table Name           | Logical Dimension Table Name                      | Remarks   |
|--------------------------------|---|---|
| DIM_ONEROUS_CLASSIFICA TION    | Onerous Classification<br>Dimension               | This is the Seeded dimension table for the onerous classification of the contract at Homogenous risk level.   |
|                                |   | Sample values: ONEROUS, POSO, REMANINGCONTRACTS.  |
| DIM_INS_ACCTG_VAL_APPR<br>OACH | Insurance Accounting Valuation Approach Dimension | This is the Seeded dimension table for Insurance Accounting Valuation Approach. Sample values: BBA, VFA, PAA. |
| DIM_INS_RISK_EXPIRY_STAT US    | Insurance Risk Expiry Status Dimension            | This is the Seeded dimension table for Insurance Risk Expiry Status.  |

| Dimension Table Name | Logical Dimension Table Name | Remarks                             |
|----------------------|------------------------------|-------------------------------------|
|                      |                              | Samples values: EXPIRED, UNEXPIRED. |

The following tables are direct results populated from processing or actuarial engines:

| Fact Table Name                   | Logical Fact Table Name                                    | Fact Table Description  |
|-----------------------------------|--|---|
| FCT_ACTUARIAL_POLICY_SU<br>MMARY  | Fact Actuarial Policy Summary                              | This table stores the cash flow of all the individual policy in an aggregated level for reporting the summary. These are the resulting tables, which contains calculations. |
| FCT_INS_HRG_CASH_FLOW             | Fact Insurance Homogeneous<br>Risk Group Cash Flow         | This table stores the cash flow estimates at Homogeneous Risk Group level for insurance policy group.   |
| FCT_INS_HRG_CASH_FLOW_<br>SUMMARY | Fact Insurance Homogeneous<br>Risk Group Cash Flow Summary | This table stores the cash flow estimates at Homogeneous Risk Group summary level of Homogenous Risk Group.   |

## 29.2.1 About Financial Element Dimension Table

Insurance Financial Element Dimension table name and its description is given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| DIM_INS_FINANCIAL_ELEMENT    | This table stores Insurance financial elements details.  Sample values: Outflow Sum Insured, Outflow Expected Benefits, Outflow Expected Expense, etc. |

The mapping details for the Insurance Financial Element Dimension table is given here.

| Map Reference<br>Number | Source Table Name                  | Logical Stage Table<br>Name                 | Dimension Table Name          | Logical Dimension Table Name          |
|-------------------------|------------------------------------|---|-------------------------------|---------------------------------------|
| 487                     | STG_INS_FINANCIA<br>L_ELMNT_MASTER | Stage Insurance<br>Financial Element Master | DIM_INS_FINAN<br>CIAL_ELEMENT | Insurance Financial Element Dimension |

## 29.2.2 About Insurance Scenario Dimension Table

Insurance Scenario Dimension table name and its description is given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| DIM_INSURANCE_SCENARIO       | This table stores different scenario or assumption that can affect the calculation of cash flow.  Sample values: Adverse, Severely Adverse, etc. |

The mapping details for the Insurance Financial Element Dimension table is given here.

| Map Reference | Source Table                    | Logical Stage                      | Dimension Table            | Logical Dimension Table         |
|---------------|---------------------------------|------------------------------------|----------------------------|---------------------------------|
| Number        | Name                            | Table Name                         | Name                       | Name                            |
| 486           | STG_INS_SC<br>ENARIO_MAS<br>TER | Stage Insurance<br>Scenario Master | DIM_INSURANCE_SC<br>ENARIO | Insurance Scenario<br>Dimension |

# 29.2.3 About Insurance Vintage Dimension Table

Insurance Vintage Dimension table name and its description is given here.

| Logical Dimension Table Name | Remarks  |
|------------------------------|--|
| DIM_INSURANCE_VINTAGE        | This table stores Insurance Vintage associated with each process. Vintage refers to period of origination or first premium paid or major change on contract terms and conditions. This is a custom defined table. The end user can store monthly, yearly, half-yearly, quarterly values or as required.  Sample values: Q1YYYY, Q2YYYY, M1YYYY, etc. |

The mapping details for the Insurance Financial Element Dimension table is given here.

| Map Reference<br>Number | Source Table Name | Logical Stage<br>Table Name | Dimension Table<br>Name | Logical Dimension Table Name |
|-------------------------|-------------------|-----------------------------|-------------------------|------------------------------|
| 485                     | STG_INSURANCE_V   | Stage Insurance             | DIM_INSURANCE_          | Insurance Vintage            |
|                         | INTAGE_MASTER     | Vintage Master              | VINTAGE                 | Dimension                    |

# 29.2.4 About Fact Insurance Policy Cash Flow T2T (Result Table)

Fact Insurance Policy Cash Flow T2T and its description is given here.

| T2T Name                     | T2T Description  |
|------------------------------|--|
| T2T_FCT_INS_POLICY_CASH_FLOW | This T2T stores the cash flow estimates at a policy level. |

| T2T Name                           | T2T Description  |
|------------------------------------|--|
| T2T_FCT_INS_ASSUM_POLICY_CASH_FLOW | This T2T stores the cash flow estimates at a policy level. It captures the details for assumed policies. |

The mapping details for the Fact Insurance Policy Cash Flow T2T is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table<br>Name | T2T Name           |
|----------------------|-----------------------------|-----------------|----------------------------|--------------------|
| STG_INS_POLICY       | Stage Insurance             | FCT_INS_POLICY  | Fact Insurance             | T2T_FCT_INS_POLICY |
| _CASH_FLOW           | Policy Cash Flow            | _CASH_FLOW      | Policy Cash Flow           | _CASH_FLOW         |
| STG_INS_ASSUM        | Stage Insurance             | FCT_INS_ASSUM   | Fact Insurance             | T2T_FCT_INS_ASSUM  |
| _POLICY_CASH_        | Assumed Policy              | _POLICY_CASH_   | Assumed Policy             | _POLICY_CASH_FLO   |
| FLOW                 | Cash Flow                   | FLOW            | Cash Flow                  | W                  |

# 29.3 Deploying Actuarial Cash Flows, Calculations, and Result Areas Summary Tables on Hive

All RDBMS related Actuarial Cash Flows, Calculations, and Result Areas Summary Tables Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List</u> of <u>Unsupported T2Ts</u>.

# 29.4 Populating Actuarial Cash Flows, Calculations, and Result Areas Summary Dimension Tables

Follow this SCD process to populate data into any Actuarial Cash Flows, Calculations, and Result Areas Summary Tables Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Actuarial Cash Flows, Calculations, and Result Areas Summary Dimension table.

- To populate data into any Actuarial Cash Flows, Calculations, and Result Areas Summary Tables
  Dimension table, execute the SCD batch. For a detailed procedure, see <u>Slowly Changing Dimension</u>
  (SCD) Process.
- 2. To check the SCD batch execution status of any Actuarial Cash Flows, Calculations, and Result Areas Summary Tables Dimension table, follow the procedure <a href="Check the Execution Status of the SCD">Check the Execution Status of the SCD Batch</a>.

**3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 29.5 Populating Actuarial Cash Flows, Calculations, and Result Areas Summary T2T Result Tables

Follow this T2T process to populate data into any Actuarial Cash Flows, Calculations, and Result Areas Summary T2T Result table:

#### **NOTE**

You can also follow this T2T process to populate data into any Hive related Actuarial Cash Flows, Calculations, and Result Areas Summary T2T Result table.

- 1. To populate data into any Actuarial Cash Flows, Calculations, and Result Areas Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Actuarial Cash Flows, Calculations, and Result Areas Summary Result tables, follow the procedure <a href="Check the Batch Execution Status">Check the Batch Execution Status of T2T</a>.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files and Check Error Messages</u>.

# 30 Common Customer Summary Tables

This chapter provides information about Common Customer Summary tables in the Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- About Dimension Tables that Loads Common Customer Summary T2T
- About T2Ts (Result Tables) that Loads Common Customer Summary T2T
- About Common Customer Summary T2T (Result Table)
- Deploying Common Customer Summary Tables on Hive
- Populating Common Customer Summary T2T Result Tables

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

# 30.1 About Dimension Tables that Loads Common Customer Summary T2T

Common Customer Summary Dimension table names and their description are given here.

| Logical Dimension Table Name | Dimension Table Description  |
|------------------------------|--|
| Channel Dimension            | This table stores the master list of all unique codes that denote channels through which customers can be acquired.                            |
| Education Dimension          | This table stores the details of education master information of a customer.   |
| Geography Dimension          | This table stores the distinct list of all geographical locations, where any of the transaction channels of the Insurance Company are located. |
| Industry Dimension           | This table stores industry information.  |
| Account Management Dimension | This table stores the organization hierarchy details across the management.  |
| Migration Reasons Dimension  | This table stores reasons for deviation.   |
| Vintage Dimension            | This table stores vintage definitions.   |
| Customer Dimension           | This table stores the list of the customers and counterparties, and their attributes of an organization  |
| Profession Dimension         | This table stores the master list of all customer professions.   |
| Marital Status Dimension     | This table stores customer marital status details.   |
| Customer Type Dimension      | This table stores the master list of customer types.   |
| Credit Rating Dimension      | This table stores credit rating information.   |

The mapping details for the Common Customer Summary Dimension tables are given here.

| Map Reference<br>Number | Source Table Name               | Logical Stage<br>Table Name         | Dimension Table           | Logical Dimension Table Name   |
|-------------------------|---------------------------------|-------------------------------------|---------------------------|--------------------------------|
| 21                      | STG_SALES_CHAN<br>NEL_MASTER    | Stage Sales<br>Channel Master       | DIM_CHANNEL               | Channel Dimension              |
| 40                      | STG_CUST_EDUCA<br>TION_MASTER   | Stage Customer<br>Education Master  | DIM_EDUCATION             | Education Dimension            |
| 47                      | STG_GEOGRAPHY_<br>MASTER        | Stage Geography<br>Master           | DIM_GEOGRAPH<br>Y         | Geography Dimension            |
| 51                      | STG_INDUSTRY_MA<br>STER         | Stage Industry<br>Master            | DIM_INDUSTRY              | Industry Dimension             |
| 62                      | STG_ACCOUNT_MG<br>MT_MASTER     | Stage Account<br>Management Master  | DIM_MANAGEME<br>NT        | Account Management Dimension   |
| 68                      | STG_MIGRATION_R<br>EASON_MASTER | Stage Migration<br>Reason Master    | DIM_MIGRATION_<br>REASONS | Migration Reasons<br>Dimension |
| 116                     | STG_VINTAGE_MAS<br>TER          | Stage Vintage<br>Master             | DIM_VINTAGE               | Vintage Dimension              |
| 335                     | VW_STG_PARTY_M<br>ASTER_CUST    | Stage Party Master<br>Customer View | DIM_CUSTOMER              | Customer Dimension             |
| 344                     | STG_PROFESSION_<br>MASTER       | Stage Profession<br>Master          | DIM_PROFESSIO<br>N        | Profession Dimension           |
| 389                     | STG_MARITAL_STA<br>TUS_MASTER   | Stage Marital Status<br>Master      | DIM_MARITAL_ST<br>ATUS    | Marital Status Dimension       |
| 418                     | STG_PARTY_TYPE_<br>MASTER       | Stage Party Type<br>Master          | DIM_CUSTOMER_<br>TYPE     | Customer Type<br>Dimension     |
| 466                     | STG_CREDIT_RATI<br>NG_MASTER    | Stage Credit Rating<br>Master       | DIM_CREDIT_RAT<br>ING     | Credit Rating Dimension        |

## **About T2Ts (Result Tables) that Loads Common Customer** 30.2 **Summary T2T**

T2T for Common Customer Summary and its description is given here.

| T2T Name                     | T2T Description  |
|------------------------------|--|
| T2T_FCT_PARTY_RATING_DETAILS | This T2T stores the rating details of the Customer or Counterparty or Guarantor etc.   |
| T2T_FCT_PARTY_FINANCIALS     | This T2T stores the financial information (Balance Sheet, Profit and Loss statement, and Ratios) of the parties like Customer and Guarantor. |

The mapping details for T2Ts to load Common Customer Summary is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table Name | T2T Name            |
|----------------------|-----------------------------|-----------------|-------------------------|---------------------|
| STG_PARTY_RA         | Stage Party                 | FCT_PARTY_RATI  | Fact Party Rating       | T2T_FCT_PARTY_RATIN |
| TING_DETAILS         | Rating Details              | NG_DETAILS      | Details                 | G_DETAILS           |
| STG_PARTY_FIN        | Stage Party                 | FCT_PARTY_FINA  | Fact Party Financials   | T2T_FCT_PARTY_FINAN |
| ANCIALS              | Financials                  | NCIALS          |                         | CIALS               |

# 30.3 About Common Customer Summary T2T (Result Table)

Common Customer Summary T2T and its description is given here.

| T2T Name                | T2T Description   |
|-------------------------|---|
| T2T_FCT_COMMON_CUSTOMER | This T2T stores different attributes pertaining to raw customer data received from the source system. |

The mapping details for the Common Customer Summary T2T is given here.

| Source Table<br>Name | Logical Stage<br>Table Name | Fact Table Name | Logical Fact Table<br>Name | T2T Name         |
|----------------------|-----------------------------|-----------------|----------------------------|------------------|
| STG_CUSTOME          | Stage Customer              | FCT_COMMON_CUS  | Fact Common                | T2T_FCT_COMMON_C |
| R_DETAILS            | Details                     | TOMER_SUMMARY   | Customer Summary           | USTOMER          |

# 30.4 Deploying Common Customer Summary Tables on Hive

All RDBMS related Common Customer Summary Result table can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 30.5 Populating Common Customer Summary T2T Result Tables

Follow these steps to populate data in Common Customer Summary T2T Result tables:

- 1. Prerequisites.
- 2. Populating Common Customer Summary T2T Result Tables.

## 30.5.1 Prerequisites

To load the resultant tables required for Common Customer Summary T2T, follow these steps:

- 1. Populating Dimension Tables to Load Common Customer Summary T2T.
- 2. Populating T2Ts to Load Common Customer Summary T2T.
- 3. Populating Other Tables to Load Common Customer Summary T2T.

## 30.5.1.1 Populating Dimension Tables to Load Common Customer Summary T2T

For Dimension mapping details for this section, see <u>About Dimension Tables that Loads Common Customer Summary T2T</u>. Follow this SCD process to populate data into any Dimension tables that are used to load Common Customer Summary T2Ts:

NOTE

You can also follow this SCD process to populate data into any Hive related Common Customer Summary Dimension table.

- 1. To populate data into any Dimension table (required to load Common Customer Summary T2T), execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of a Dimension table (required to load Common Customer Summary T2T), follow the procedure Check the Execution Status of the SCD Batch.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

## 30.5.1.2 Populating T2Ts to Load Common Customer Summary T2T

For T2T mapping details for this section, see <u>About T2Ts (Result Tables) that Loads Common Customer Summary T2T</u>. Follow this T2T process to populate data into any T2T that is required to load data into Common Customer Summary T2T:

- **1.** To populate data into any Common Customer Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Common Customer Summary Result tables, follow the procedure <a href="Check the Batch Execution Status of T2T">Check the Batch Execution Status of T2T</a>.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and Check Error Messages.

## 30.5.1.3 Populating Other Tables to Load Common Customer Summary T2T

Load these tables with data:

DIM\_BANDS

To follow Dimension loading process, see <u>Populating Dimension Tables to Load Common Customer</u> Summary T2T.

DIM\_GENDER

To follow Dimension loading process, see <u>Populating Dimension Tables to Load Common Customer Summary T2T.</u>

FCT\_COMMON\_ACCOUNT\_SUMMARY

For mapping details, see Other Common Account Summary Tables and Common Policy Summary T2T Tables.

To follow T2T process, see Populating T2Ts to Load Common Customer Summary T2T.

## 30.5.2 Populating Common Customer Summary T2T Result Tables

Follow T2T process to populate data into any Common Customer Summary T2T Result table:

**NOTE** 

You can also follow this T2T process to populate data into any Hive related Common Customer Summary T2T Result table.

For T2T mapping details for this section, see <u>About Common Customer Summary T2T (Result Table)</u>. To follow the T2T process, see Populating T2Ts to Load Common Customer Summary T2T.

# 31 Property and Casualty Tables

This section provides information about Property and Casualty tables in the Oracle Insurance Data Foundation application.

This section includes the following topics:

- About Property and Casualty Dimension Tables
- About Property and Casualty T2Ts (Result Tables)
- Deploying Property and Casualty Tables on Hive
- Populating Property and Casualty Dimension Tables
- Populating Property and Casualty T2T Result Tables

These tables store details of policy related to property and casualty contracts.

## 31.1.1 About Property and Casualty Dimension Tables

Property and Casualty Dimension table names and their description are given here.

| Logical Dimension Table Name      | Dimension Table Description  |
|-----------------------------------|--|
| Vehicle Dimension                 | This table stores the details of vehicles that are involved attached to policies and claims.   |
| Vehicle Body Type Dimension       | This table stores details of vehicle body type. Different types of vehicles have different set of values. For example, values can be two door sedan, two door hatchback, five door sedan, etc. |
| Vehicle Rating Dimension          | This table holds vehicle rating details. Even when vehicle ratings are done internally, they are also handled through common underwriter or rating agencies.                                   |
| Vehicle Tonage Capacity Dimension | This table is used to store tonnage capacity rating. Different jurisdictions will have different rating and grouping of tonnage capacity.  |

The mapping details for the Property and Casualty Dimension tables are given here.

| Map Reference<br>Number | Source Table<br>Name                   | Logical Stage<br>Table Name                | Dimension Table                 | Logical Dimension Table<br>Name      |
|-------------------------|--|--|---------------------------------|--------------------------------------|
| 256                     | STG_VEHICLE_M<br>ASTER                 | Stage Vehicle<br>Master                    | DIM_VEHICLE                     | Vehicle Dimension                    |
| 688                     | STG_VEHICLE_B<br>ODY_TYPE_MAST<br>ER   | Stage Vehicle Body<br>Type Master          | DIM_VEHICLE_BO<br>DY_TYPE       | Vehicle Body Type<br>Dimension       |
| 689                     | STG_VEHICLE_R<br>ATING_MASTER          | Stage Vehicle<br>Rating Master             | DIM_VEHICLE_RA<br>TING          | Vehicle Rating Dimension             |
| 690                     | STG_VEH_TONAG<br>E_CAPACITY_MA<br>STER | Stage Vehicle<br>Tonage Capacity<br>Master | DIM_VEHICLE_TO<br>NAGE_CAPACITY | Vehicle Tonage Capacity<br>Dimension |

# 31.1.2 About Property and Casualty T2Ts (Result Tables)

Property and Casualty T2Ts and its description are given here.

| T2T Name                           | T2T Description   |
|------------------------------------|---|
| T2T_FCT_CLAIM_DRIVER_VEHICLE_MAP   | This T2T stores details of the relationship between claim, driver, and vehicles.  |
| T2T_FCT_POLICY_DRIVER_VEHICLE_MAP  | This T2T stores details of the relationship between policy, driver, and vehicles.   |
| T2T_FCT_POLICY_VEHICLE_RATING_DTLS | This T2T stores details of vehicle rating details for a given policy. Even when vehicle ratings are done internally, they are also handled through common underwriter or rating agencies. |

The mapping details for the Property and Casualty T2T are given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name            | Fact Table Name                    | Logical Fact<br>Table Name               | T2T Name                               |
|--|--|------------------------------------|--|--|
| STG_CLAIM_DRI<br>VER_VEHICLE_<br>MAP   | Stage Claim Driver<br>Vehicle Map      | FCT_CLAIM_DRIVE<br>R_VEHICLE_MAP   | Fact Claim Driver<br>Vehicle Map         | T2T_FCT_CLAIM_DRIV<br>ER_VEHICLE_MAP   |
| STG_POLICY_D<br>RIVER_VEHICLE<br>_MAP  | Stage Policy Driver<br>Vehicle Map     | FCT_POLICY_DRIV<br>ER_VEHICLE_MAP  | Fact Policy Driver<br>Vehicle Map        | T2T_FCT_POLICY_DRI<br>VER_VEHICLE_MAP  |
| STG_POLICY_VE<br>HICLE_RATING_<br>DTLS | Stage Policy Vehicle<br>Rating Details | FCT_POLICY_VEHI<br>CLE_RATING_DTLS | Fact Policy<br>Vehicle Rating<br>Details | T2T_FCT_POLICY_VEH<br>ICLE_RATING_DTLS |

# 31.2 Deploying Property and Casualty Tables on Hive

All RDBMS related Property and Casualty Dimension and Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List</u> of <u>Unsupported T2Ts</u>.

# 31.3 Populating Property and Casualty Dimension Tables

Follow this SCD process to populate data into any Property and Casualty Dimension table:

NOTE

You can also follow this SCD process to populate data into any Hive related Insurance Claims Dimension table.

- 1. To populate data into any Property and Casualty Dimension table, execute the SCD batch. For a detailed procedure, see Slowly Changing Dimension (SCD) Process.
- 2. To check the SCD batch execution status of an Property and Casualty Dimension table, follow the procedure <a href="Check the Execution Status">Check the Execution Status of the SCD Batch</a>.
- 3. To verify log files, and check the error messages (if any), follow the procedure <u>Verify Log Files and Check Error Messages</u>.

# 31.4 Populating Property and Casualty T2T Result Tables

Follow this T2T process to populate data into any Property and Casualty T2T Result tables:

NOTE

You can also follow this T2T process to populate data into any Hive related Property and Casualty T2T Result table.

- 1. To populate data into any Property and Casualty T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Property and Casualty Result tables, follow the procedure <a href="Check the Batch Execution Status of T2T">Check the Batch Execution Status of T2T</a>.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>.

## 32 Credit Score Model and Probability of Default Model **Tables**

This chapter provides information about Credit Score Model and Probability of Default Model tables in the Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- About Credit Score Model and Probability of Default Model T2Ts (Result Tables)
- Staging Data Expectation for Credit Score Model
- About Mapper for Credit Score Model to Regulatory Credit Score Model
- Maintenance of Mapper for Credit Score Model to Regulatory Credit Score Model
- **Prerequisites for Mapper Maintenance**
- Possible Mapping Combinations
- One-to-One Mapping
- Many-to-One Mapping
- Loading Mapper Maintenance through Backend
- Deploying Credit Score Model and Probability of Default Model Tables on Hive
- Populating Credit Score Model and Probability of Default Model T2T Result Tables

### **About Credit Score Model and Probability of Default Model** 32.1 T2Ts (Result Tables)

Credit Score Model and Probability of Default Model T2Ts and their description are given here.

| T2T Name                           | T2T Description  |
|------------------------------------|--|
| T2T_FCT_ACCT_CREDIT_SCORE_DETAILS  | This T2T stores the details of the credit score of account throughout its lifetime.              |
| T2T_FCT_SERV_ACCT_CREDIT_SCORE_DTL | This T2T stores the details of the credit score of serviced account throughout its lifetime.     |
| T2T_FCT_PARTY_PD_DETAILS           | This T2T stores the probability of default values as of given date for all relevant Party.       |
| T2T_FCT_INSTRUMENT_PD_DETAILS      | This T2T stores the probability of default values as of given date for all relevant instruments. |

The mapping details for the Credit Score Model and Probability of Default Model T2Ts are given here.

| Source Table<br>Name                   | Logical Stage<br>Table Name                           | Target Table Name                      | Logical Fact Table Name                              | T2T Definition Name                        |
|--|---|--|--|--|
| STG_ACCT_CRE<br>DIT_SCORE_DET<br>AILS  | Stage Account<br>Credit Score<br>details              | FCT_ACCT_CREDIT<br>_SCORE_DETAILS      | Fact Account Credit<br>Score details                 | T2T_FCT_ACCT_CR<br>EDIT_SCORE_DETAI<br>LS  |
| STG_SERV_ACCT<br>_CREDIT_SCORE<br>_DTL | Stage Service<br>Account Credit<br>Score Detail       | FCT_SERV_ACCT_<br>CREDIT_SCORE_D<br>TL | Fact Service<br>Account Credit<br>Score Detail       | T2T_FCT_SERV_AC<br>CT_CREDIT_SCORE<br>_DTL |
| STG_PARTY_PD_<br>DETAILS               | Stage Party<br>Probability of<br>Default Details      | FCT_PARTY_PD_D<br>ETAILS               | Fact Party<br>Probability of<br>Default Details      | T2T_FCT_PARTY_PD<br>_DETAILS               |
| STG_INSTRUMEN<br>T_PD_DETAILS          | Stage Instrument<br>Probability of<br>Default Details | FCT_INSTRUMENT_<br>PD_DETAILS          | Fact Instrument<br>Probability of<br>Default Details | T2T_FCT_INSTRUME<br>NT_PD_DETAILS          |

#### 32.1.1 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. However, the Reporting tables Fact Account Credit Score Details and Fact Service Account Credit Score Details are mapped to reports in snapshot mode. In the T2T process, latest records available on a daily basis for a given account and model are picked and loaded to the Reporting tables.

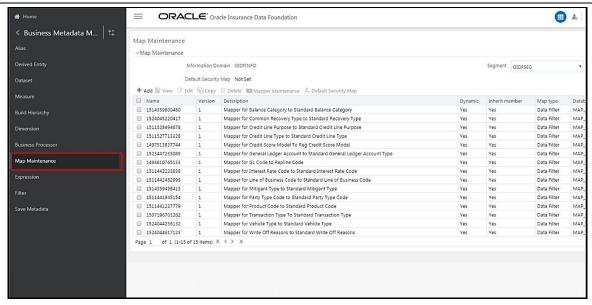
### **About Mapper for Credit Score Model to Regulatory Credit** 32.2 Score Model

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 the tables 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.

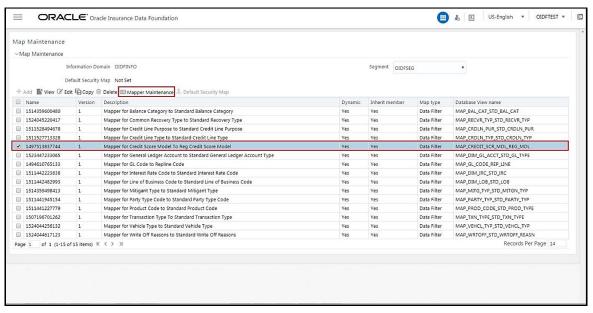
### 32.3 Maintenance of Mapper for Credit Score Model to Regulatory **Credit Score Model**

To maintain Mapper for Credit Score Model to Regulatory Credit Score Model, perform these steps.

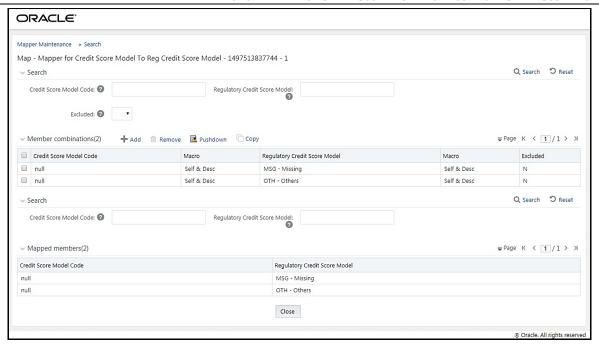
 Go to OFSAAI > Oracle Insurance Data Foundation > Unified Analytical Metadata > Business Metadata Management > Map Maintenance.



The Map Maintenance page appears. Select Mapper for Credit Score Model to Regulatory Credit Score Model. Click Mapper Maintenance icon.



The Mapper Maintenance window appears. OIDF 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.



## 32.3.1 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

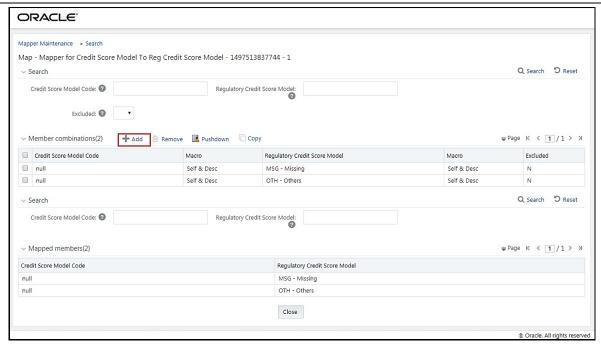
# **32.3.2 Possible Mapping Combinations**

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.

## 32.3.2.1 One-to-One Mapping

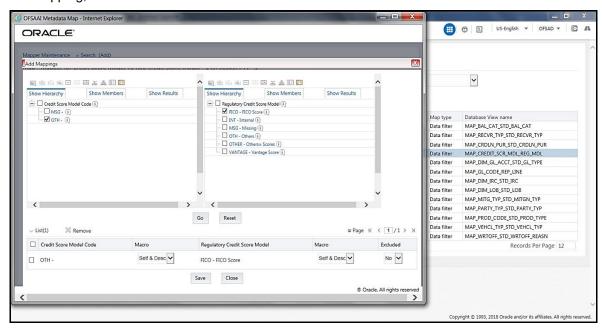
One Credit Score Model can be mapped to one Regulatory Credit Score Model using the Mapper Maintenance screen. Here, you need to select one Credit Score Model and one Regulatory Credit Score Model. This means the corresponding data in Stage Account Credit Score Details Credit Score Model column for the 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.

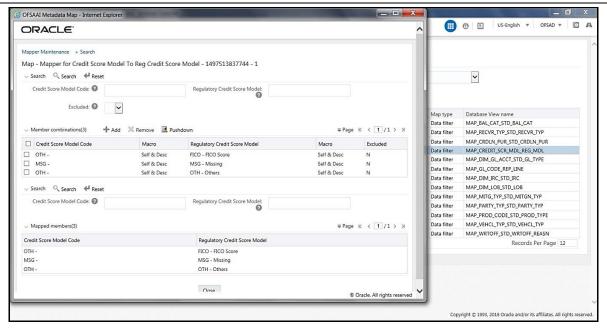


2. The Add Mappings pop-up window is displayed.

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



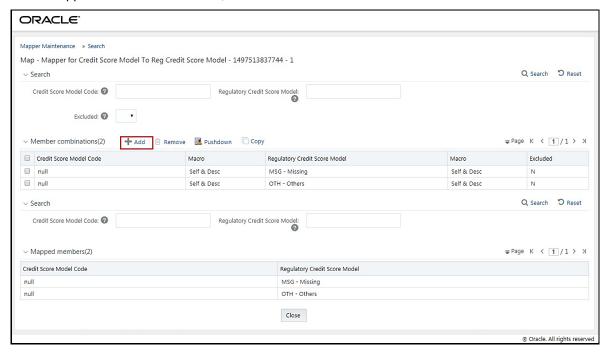
- An acknowledgement is displayed. Click Yes to confirm.
- The Mapped Members are displayed in the Mapper Maintenance Screen.



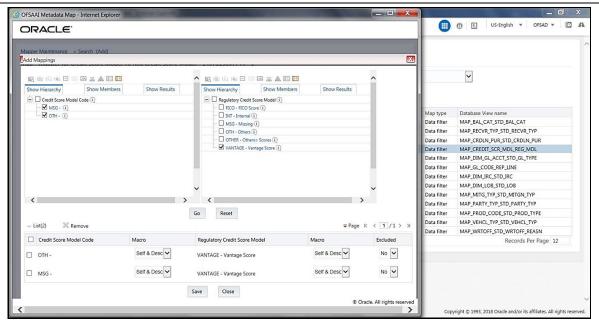
## 32.3.2.2 Many-to-One Mapping

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.

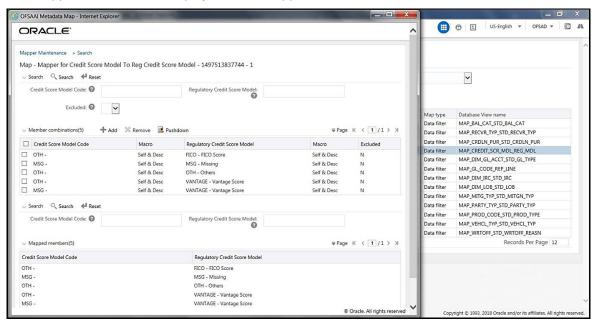
**1.** In the Mapper Maintenance window, click Add.



The Add Mappings pop-up window is displayed. 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.
- The Mapped Members are displayed in the Mapper Maintenance Screen.

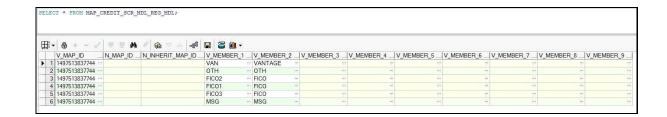


#### 32.4 Loading Mapper Maintenance through Backend

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.



# 32.5 Deploying Credit Score Model and Probability of Default Model Tables on Hive

All RDBMS related Credit Score Model and Probability of Default Model Result tables can also be deployed on Hive (Stage and Results on Hive).

NOTE

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see <u>List of Unsupported T2Ts</u>.

# 32.6 Populating Credit Score Model and Probability of Default Model T2T Result Tables

Follow this T2T process to populate data into any Credit Score Model and Probability of Default Model T2T Result table:

NOTE

You can also follow this T2T process to populate data into any Hive related Credit Score Model and Probability of Default Model T2T Result table.

- To populate data into any Credit Score Model and Probability of Default Model T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - b. Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- To check the T2T batch execution status of the Credit Score Model and Probability of Default Model Result tables, follow the procedure <u>Check the Batch Execution Status of T2T</u>.
- To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files</u> and <u>Check Error Messages</u>

#### 33 Other Miscellaneous Tables

This chapter provides information about populating various other Results tables in the Oracle Insurance Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

- About Other Result T2Ts (Result T2Ts)
- Deploying Other Result Tables on Hive
- Populating Other T2T Result Tables

Other Results tables store Party details related to fixed assets, spend obligations and assets sold. These tables are used for the purpose of financial report of the party or organization.

#### 33.1 **About Other Result T2Ts (Result T2Ts)**

Other Result T2Ts and their description are given here.

| T2T Name                  | T2T Description   |
|---------------------------|---|
| T2T_FCT_ASSETS_SOLD       | This T2T stores the data of assets sold over a period.  |
| T2T_FCT_FIXED_ASSETS      | This T2T stores the details pertaining to fixed assets such as real estate.   |
| T2T_FCT_SPEND_OBLIGATIONS | This T2T stores the contract codes for purchase obligations such as long duration IT contract signed by Insurance Company or other spend obligations such as lease contracts. |

The mapping details for the Other Result T2Ts are given here.

| Source Table Name   | Logical Stage<br>Table Name | Fact Table Name     | Logical Fact<br>Table Name | T2T Name                |
|---------------------|-----------------------------|---------------------|----------------------------|-------------------------|
| STG_ASSETS_SOL<br>D | Stage Assets Sold           | FCT_ASSETS_S<br>OLD | Fact Assets Sold           | T2T_FCT_ASSETS_SO<br>LD |
| STG_FIXED_ASSET     | Stage Fixed Assets          | FCT_FIXED_ASS       | Fact Fixed Assets          | T2T_FCT_FIXED_ASSE      |
| S_DETAILS           | Details                     | ETS                 |                            | TS                      |
| STG_SPEND_OBLIG     | Stage Spend                 | FCT_SPEND_OB        | Fact Spend                 | T2T_FCT_SPEND_OBLI      |
| ATIONS              | Obligations                 | LIGATIONS           | Obligations                | GATIONS                 |

#### 33.2 **Deploying Other Result Tables on Hive**

All RDBMS related Other Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

# 33.3 Populating Other T2T Result Tables

Follow this T2T process to populate data into Other T2T Result tables:

NOTE

You can also follow this T2T process to populate data into any Hive related Other T2T Result table.

- 1. To populate data into any Other T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - **b.** Set the Run Parameters.
  - c. Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Other Result tables, follow the procedure <a href="Check the Batch Execution Status of T2T">Check the Batch Execution Status of T2T</a>.
- **3.** To verify log files, and check the error messages (if any), follow the procedure <u>Verify T2T Log Files and Check Error Messages</u>.

#### **Transaction Summary Tables** 34

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

This chapter includes the following topics:

- About Transaction Summary T2T (Result Table)
- Deploying Transaction Summary Result Tables on Hive
- Populating Transaction Summary T2T Result Tables

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.

#### **About Transaction Summary T2T (Result Table)** 34.1

Transaction Summary T2Ts and their description are given here.

| T2T Name                                 | T2T Description   |
|--|---|
| T2T_STG_ANNUITY_TXNS_FTS                 | This T2T stores the details of annuity transactions.                              |
| T2T_STG_BORROWINGS_TXNS_FTS              | This T2T stores the details of borrowing transactions.                            |
| T2T_STG_CREDIT_DERIVATIVES_TXNS_FTS      | This T2T stores the details of credit derivatives transactions.                   |
| T2T_STG_FOREX_TXNS_FTS                   | This T2T stores the details of Forex account transactions.                        |
| T2T_STG_FUTURES_TXNS_FTS                 | This T2T stores the details of futures contract transactions.                     |
| T2T_STG_GUARANTEES_TXNS_FTS              | This T2T stores the details of guarantees transactions.                           |
| T2T_STG_INVESTMENT_TXNS_FTS              | This T2T stores the details of investment transactions.                           |
| T2T_STG_LOAN_CONTRACT_TXNS_FTS           | This T2T stores transactions that occurred on loan contracts.                     |
| T2T_STG_MM_TXNS_FTS                      | This T2T stores details of money market transactions.                             |
| T2T_STG_MUTUAL_FUNDS_TXNS_FTS            | This T2T stores details of mutual fund transactions.                              |
| T2T_STG_OPTION_CONTRACTS_TXNS_FTS        | This T2T stores details of option contracts transactions.                         |
| T2T_STG_RETIREMENT_ACCOUNTS_TXNS_<br>FTS | This T2T stores the details of transactions that occurred on Retirement accounts. |
| T2T_STG_SWAP_ACCOUNT_TXNS_FTS            | This T2T stores the details of swap account transactions.                         |
| T2T_STG_TRUSTS_TXNS_FTS                  | This T2T stores the details of transactions that occurred on trust accounts.      |
| T2T_STG_COMMODITIES_TXNS_FTS             | This T2T stores the details of commodity transactions.                            |
| T2T_STG_CUSTODIAN_ACCOUNT_TXNS_FT S      | This T2T stores the details of transactions for a custodian account.              |
| T2T_STG_REPO_TRANSACTIONS_FTS            | This T2T stores the details of repurchase and reverse repurchase transactions.    |

The mapping details for the Transaction Summary T2Ts are given here.

| Source Table<br>Name                 | Logical Stage Table<br>Name                  | Fact Table Name             | Logical Fact<br>Table Name  | T2T Name                                     |
|--------------------------------------|--|-----------------------------|-----------------------------|--|
| STG_ANNUITY_TX                       | Stage Annuity                                | FCT_TRANSACTI               | Fact Annuity                | T2T_STG_ANNUITY_T                            |
| NS                                   | Transactions                                 | ON_SUMMARY                  | Transactions                | XNS_FTS                                      |
| STG_BORROWING                        | Stage Borrowings                             | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_BORROWIN                             |
| S_TXNS                               | Transactions                                 | ON_SUMMARY                  | Summary                     | GS_TXNS_FTS                                  |
| STG_CREDIT_DERI<br>VATIVES_TXNS      | Stage Credit<br>Derivatives<br>Transactions  | FCT_TRANSACTI<br>ON_SUMMARY | Fact Transaction<br>Summary | T2T_STG_CREDIT_DE<br>RIVATIVES_TXNS_FT<br>S  |
| STG_FOREX_TXNS                       | Stage Forex                                  | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_FOREX_TX                             |
|                                      | Transactions                                 | ON_SUMMARY                  | Summary                     | NS_FTS                                       |
| STG_FUTURES_TX                       | Stage Futures                                | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_FUTURES_                             |
| NS                                   | Transactions                                 | ON_SUMMARY                  | Summary                     | TXNS_FTS                                     |
| STG_GUARANTEE                        | Stage Guarantees                             | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_GUARANTE                             |
| S_TXNS                               | Transactions                                 | ON_SUMMARY                  | Summary                     | ES_TXNS_FTS                                  |
| STG_INVESTMENT                       | Stage Investment                             | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_INVESTMEN                            |
| _TXNS                                | Transactions                                 | ON_SUMMARY                  | Summary                     | T_TXNS_FTS                                   |
| STG_LOAN_CONT                        | Stage Loan Contract                          | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_LOAN_CON                             |
| RACT_TXNS                            | Transactions                                 | ON_SUMMARY                  | Summary                     | TRACT_TXNS_FTS                               |
| STG_MM_TXNS                          | Stage Money Market                           | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_MM_TXNS_                             |
|                                      | Transactions                                 | ON_SUMMARY                  | Summary                     | FTS  |
| STG_MUTUAL_FU                        | Stage Mutual Funds                           | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_MUTUAL_F                             |
| NDS_TXNS                             | Transactions                                 | ON_SUMMARY                  | Summary                     | UNDS_TXNS_FTS                                |
| STG_OPTION_CON<br>TRACTS_TXNS        | Stage Option<br>Contracts<br>Transactions    | FCT_TRANSACTI<br>ON_SUMMARY | Fact Transaction<br>Summary | T2T_STG_OPTION_C<br>ONTRACTS_TXNS_FT<br>S    |
| STG_RETIREMENT<br>_ACCOUNTS_TXN<br>S | Stage Retirement<br>Accounts<br>Transactions | FCT_TRANSACTI<br>ON_SUMMARY | Fact Transaction<br>Summary | T2T_STG_RETIREME<br>NT_ACCOUNTS_TXNS<br>_FTS |
| STG_SWAP_ACCO                        | Stage Swap Account                           | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_SWAP_ACC                             |
| UNT_TXNS                             | Transactions                                 | ON_SUMMARY                  | Summary                     | OUNT_TXNS_FTS                                |
| STG_TRUSTS_TXN                       | Stage Trusts                                 | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_TRUSTS_TX                            |
| S                                    | Transactions                                 | ON_SUMMARY                  | Summary                     | NS_FTS                                       |
| STG_COMMODITIE                       | Stage Commodities                            | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_COMMODITI                            |
| S_TXNS                               | Transactions                                 | ON_SUMMARY                  | Summary                     | ES_TXNS_FTS                                  |
| STG_CUSTODIAN_<br>ACCOUNT_TXNS       | Stage Custodian<br>Account Transactions      | FCT_TRANSACTI<br>ON_SUMMARY | Fact Transaction<br>Summary | T2T_STG_CUSTODIA<br>N_ACCOUNT_TXNS_F<br>TS   |
| STG_REPO_TRAN                        | Stage Reporting                              | FCT_TRANSACTI               | Fact Transaction            | T2T_STG_REPO_TRA                             |
| SACTIONS                             | Transactions                                 | ON_SUMMARY                  | Summary                     | NSACTIONS_FTS                                |

#### 34.2 **Deploying Transaction Summary Result Tables on Hive**

All RDBMS related Transaction Summary Result tables can also be deployed on Hive (Stage and Results on Hive).

**NOTE** 

In general, Stage and Result tables are also supported in Hive. However, there are some exceptions. For a list of tables that are not supported in Hive, see List of Unsupported T2Ts.

#### **Populating Transaction Summary T2T Result Tables** 34.3

Follow this T2T process to populate data into Transaction Summary T2T Result tables:

NOTE

You can also follow this T2T process to populate data into any Hive related Transaction Summary T2T Result table.

- 1. To populate data into any Transaction Summary T2T Result table, execute the batch for T2T. For a detailed procedure, see:
  - a. Prerequisites for loading T2T.
  - Set the Run Parameters.
  - Save the Run Parameters.
  - d. Execute the Batch for T2T.
- 2. To check the T2T batch execution status of the Transaction Summary Result tables, follow the procedure Check the Batch Execution Status of T2T.
- 3. To verify log files, and check the error messages (if any), follow the procedure Verify T2T Log Files and Check Error Messages.

ABOUT BIG DATA IN OIDF

# 35 Big Data in OIDF

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

The following topics are included:

- About Big Data in OIDF
- OIDF Big Data Architecture
- About Staging and Results on Hive
- About Staging on Hive and Results on RDBMS
- Staging and Results on Hive
- Modifications
- Workarounds
- List of Supported SCDs and T2Ts
- List of Unsupported T2Ts
- Executing Run through Run Management for Hive

# 35.1 About Big Data in OIDF

OIDF 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.

# 35.2 OIDF Big Data Architecture

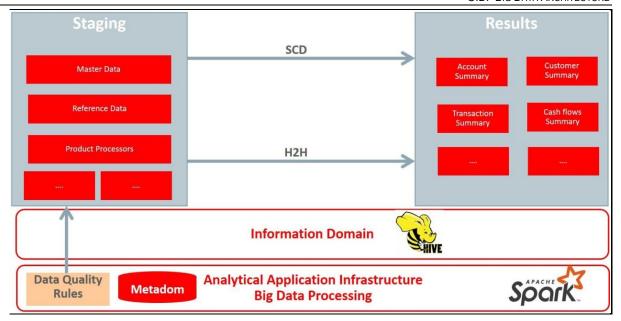
In Big Data processing, OIDF provides two types of deployment processes for Hive support. They are:

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

## 35.2.1 About 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.

OIDF Big Data Architecture - Staging and Results on Hive



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

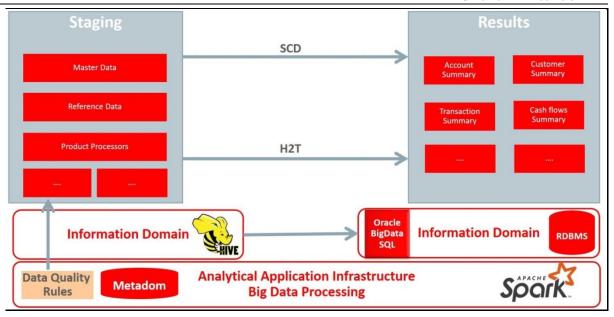
**NOTE** 

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

## 35.2.2 About 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 Oracle Insurance Data Foundation Installation Guide Release 8.0.8.0.0 in OHC). 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 Verifying Oracle's External Tables Utility in the Oracle Insurance Data Foundation Installation Guide Release 8.0.8.0.0. Refer to the below architecture diagram for the representation of this deployment process.

OIDF Big Data Architecture - Staging on Hive and Results on RDBMS



# 35.3 Staging and Results on Hive

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

## 35.3.1 Modifications

Modifications in OIDF Hive (Staging and Results on Hive deployment process) compared to OIDF 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 OIDF 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

## 35.3.2 Workarounds

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

 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 <u>Cloudera Security Guide</u>.

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.

Mappers are supported using AM/HM screens in OIDF (RDBMS). However, development of the
underlying functionality for AM/HM feature in OIDF 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
- MAP\_DIM\_GL\_ACCT\_STD\_GL\_TYPE
- 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\_RECVR\_TYP\_STD\_RECVR\_TYP
- MAP\_VEHCL\_TYP\_STD\_VEHCL\_TYP
- MAP WRTOFF STD WRTOFF REASN

#### NOTE

Hierarchies are supported using AM/HM screens in OIDF (RDBMS). However, development of the underlying functionality for AM/HM feature in OIDF 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.

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 OIDF 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.

• 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.

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

## 35.3.3 List of Supported SCDs and T2Ts

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

## 35.3.3.1 List of Supported SCDs

The SCDs for Hive used in Data Foundation solutions are listed in the Oracle Insurance Data Foundation for Hive - SCD Metadata for Hive spreadsheet under Technical Metadata for OIDF HIVE 8.0.8.0.0.

### 35.3.3.2 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.

## 35.3.3.3 List of Supported T2Ts

The T2Ts for Hive used in Data Foundation solutions are listed in the Oracle Insurance Data Foundation for Hive - Technical Metadata (Staging Source) spreadsheet under <u>Technical Metadata for OIDF HIVE</u> 8.0.8.0.0.

# 35.3.4 List of Unsupported T2Ts

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

- T2T\_FCT\_PARTY\_FAMILY\_MEDICAL\_DA
- T2T FCT PARTY MDCAL CONDITN DTL
- T2T\_FCT\_POLICY\_TRANSACTIONS\_HLD
- T2T\_FCT\_POLICY\_TRANSACTIONS\_ISS
- T2T\_FPT\_STG\_RETIREMENT\_ACCOUNTS\_TXNS
- T2T\_FPT\_STG\_PROP\_CASU\_POLICY\_TXNS
- T2T FPT STG LIFE INS POLICY
- T2T\_FPT\_STG\_HEALTH\_INS\_TXNS

- T2T\_FPT\_STG\_ANNUITY\_TXNS
- T2T\_FCT\_APPLICATION\_DOCUMENT
- T2T\_FCT\_APPLICNS\_DOC\_PRINT\_LOG
- T2T\_FCT\_PARTY\_EMPLOYMENT\_DETAILS

# 35.3.5 T2T\_FCT\_PRDCR\_INS\_DISTRBTION\_DTLSExecuting Run through Run Management for Hive

To load data in OIDF Hive, use Solo or Consolidated run execution in Run Management. For detailed information, see the chapter <u>Executing Run through Run Management</u>.

## 36 Metadata Browser

This chapter provides information about Metadata Browser in the Data Foundation application and step-bystep instructions to use this section.

This chapter includes the following topics:

- Overview
- Object View
- Metadata Publish
- Metadata Object to Application Map

## 36.1 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.

# 36.2 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

## 36.3 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.

#### **Metadata Object to Application Map** 36.4

To map all the objects the Financial Service data foundation application, a batch name <Infodom>\_ MDB\_OBJECT\_APPLN\_MAP has to be executed.

# 37 Recommendation for Backdated Run

This chapter provides information about performing a backdated Run in the 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

## 37.1 Overview of Backdated Run Execution

Backdated Run Execution is similar to any regular Run Execution in Data Foundation. You must reload or correct the data, which must be loaded for the given prior date. Refer to <u>Oracle Insurance Data Foundation</u> Runchart and execute the relevant Batches/Runs for the required prior date.

# 37.2 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.

## 37.3 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 recommendations:

- 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 Data Foundation 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

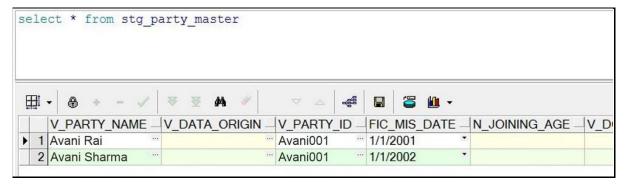
It is recommended to use this only when there is Backdated Run requirement. Any normal sequential days execution can be performed using out-of-the-box T2Ts and Runs as it results in better performance.

# 37.4 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:

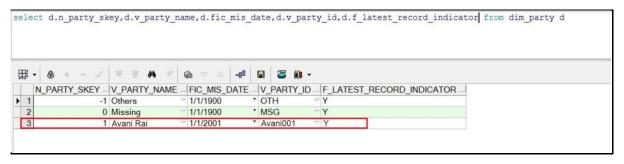
1. Add the required data records to their Master table and for the required FIC\_MIS\_DATE. For example, added two records to STG\_PARTY\_MASTER. The resultant image is shown below.



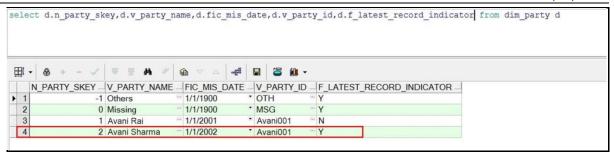
NOTE

Ensure that V\_PARTY\_ID is same in this step and the LRI batch execution step.

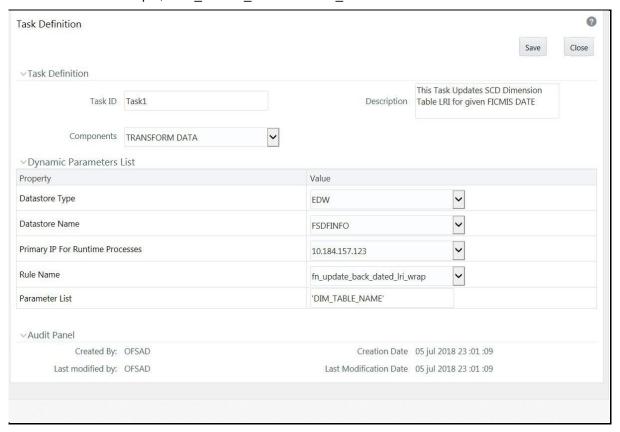
2. Execute the SCD batch to add the required records from Master table to its Dimension table with the required FIC\_MIS\_DATEs. For example, executed SCD batch to add records from STG\_PARTY\_MASTER to DIM\_PARTY. The resultant data record in the DIM\_PARTY is as shown below:



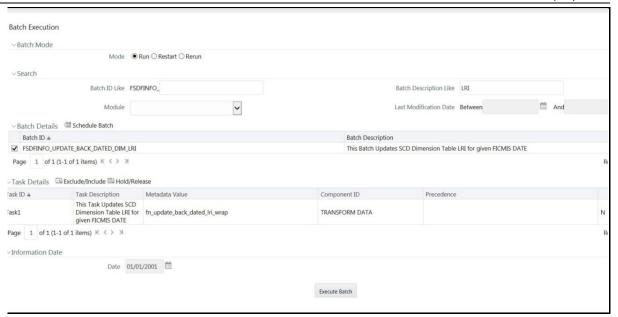
- After adding the first record to DIM\_PARTY for the FIC\_MIS\_DATE 1/1/2001, the flag F\_LATEST\_RECORD\_INDICATOR associated with this data record is set to Y.
- After adding the second record to DIM\_PARTY for the FIC\_MIS\_DATE 1/1/2002, the flag F\_LATEST\_RECORD\_INDICATOR associated with this data record is set to Y, and the flag



- 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'.

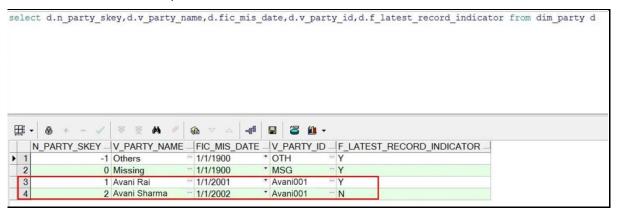


**4.** In the Batch Execution window, execute the UPDATE\_BACK\_DATED\_DIM\_LRI batch for different FIC\_MIS\_DATEs.



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.



■ 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



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.

# 38 Compare Data Model Reports

This chapter provides information about comparing Data Model Reports of two release versions in the 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

# 38.1 Creating Data Model Report from erwin

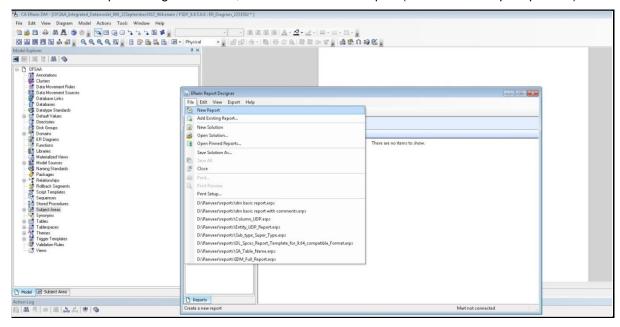
You can create new Data Model Reports from the erwin Data Modeling tool if there are no .eprs files to extract the information.

NOTE

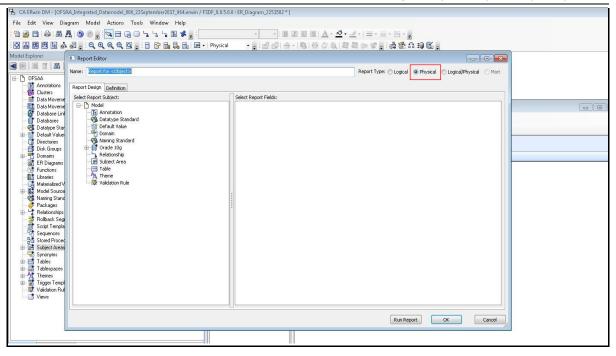
If the Data Model Reports are existing, see Extracting Data Model Report from ERwin for more information.

Perform the following steps to extract the Data Model Report form ERwin Data Modeling tool:

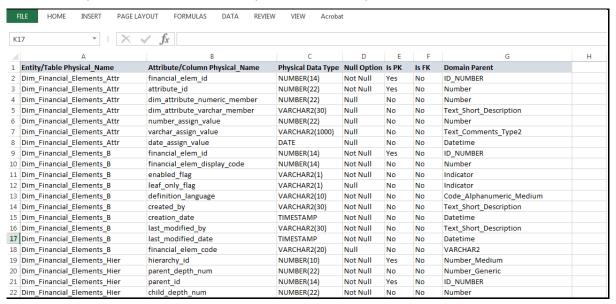
1. In the ERwin Report Designer window, select File --> New Report (to create the .erps report file).



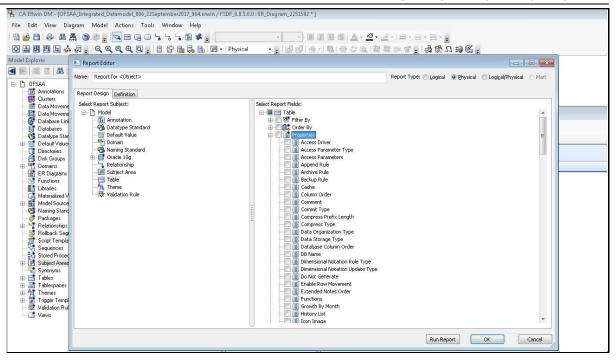
2. In the Report Editor window Select Report Type as Physical --> Select Report Subject as Table.



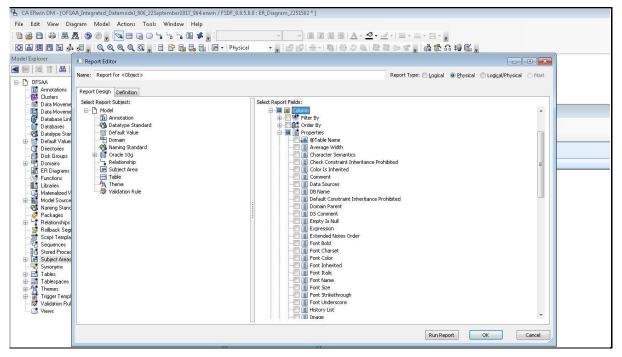
3. Select the Report Fields to match the sample Data Model Report shown as follows:



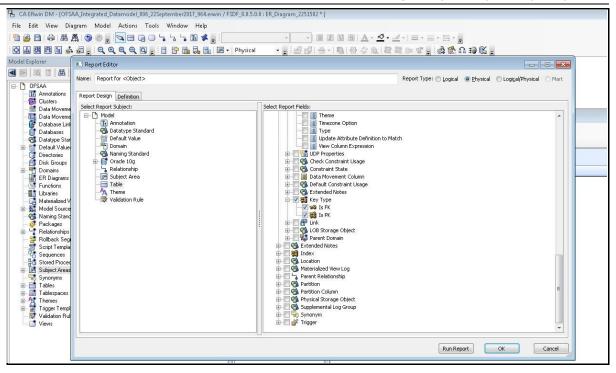
4. Go to Table > Properties, select Physical Name (Entity/Table Physical\_Name).



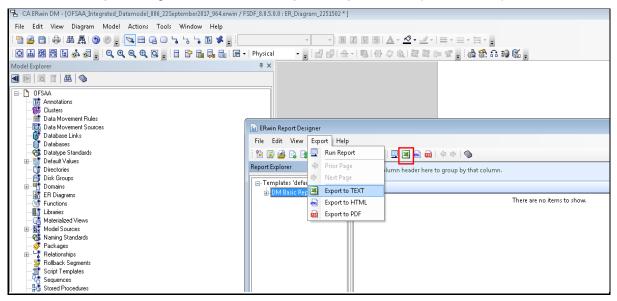
5. Go to Table > Column, select Physical Name (Attribute/Column Physical\_Name), Physical Data Type, Null Option, and Domain Parent.



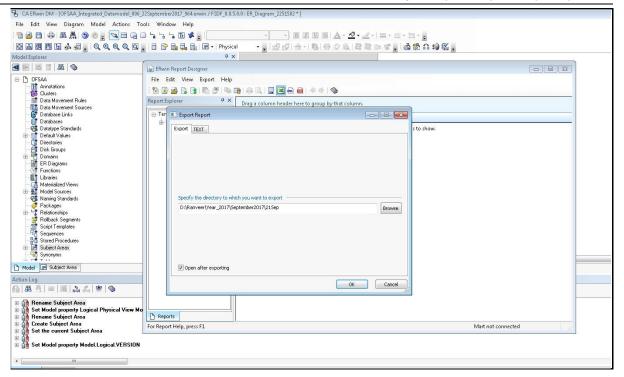
**6.** Go to Table > Key Type, select Is PK and Is FK. Click OK.



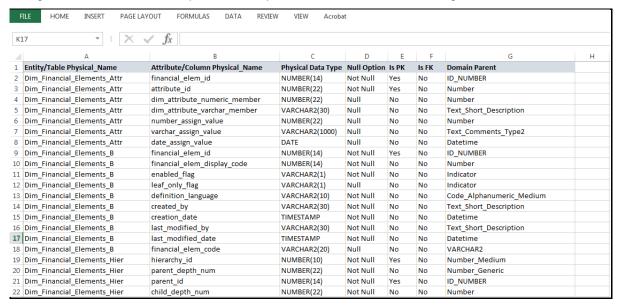
7. In the ERwin Report Designer window, select Export > Export to Text (Excel Format) or the XL icon.



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.



**NOTE** Ensure that the file is saved in .xlsx format.

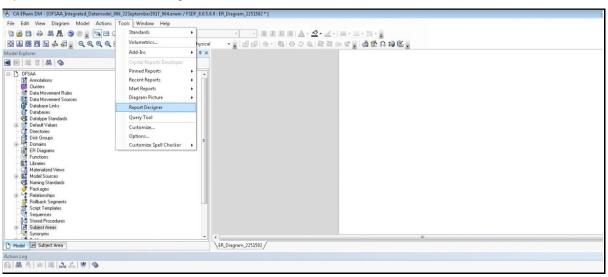
## 38.2 Extracting Data Model Report from ERwin

OIDF is a collection of data model artifacts delivered as ERwin files or can be extracted as .XLS file from ERwin Data Modeling tool. OIDF hence requires a license of the ERwin Data Modeling tool.

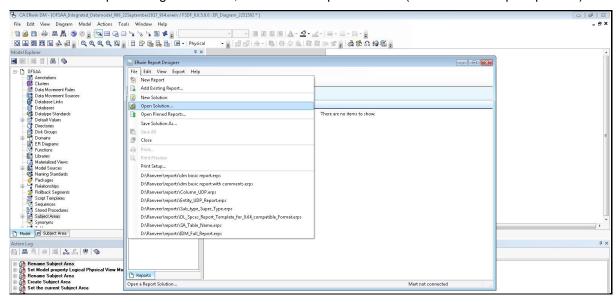
ERwin is the current and only supported modeling tool to view and edit the model. Currently, the minimum versions of ERwin supported are 9.5 and 9.64.

Perform the following steps to extract the Data Model Report form ERwin Data Modeling tool:

1. Open the Erwin Data Modeling tool.

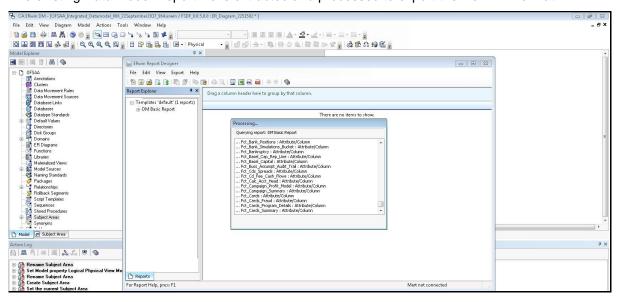


- 2. Select Tools > Report Designer from the Menu bar.
- In the ERwin Report Designer window, select File > Open Solution (to extract the .erps report file).





- **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.

# 38.3 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 must be in same format and file extension must be .xlsx

Click Reset if you want to select a different Data Model Report.

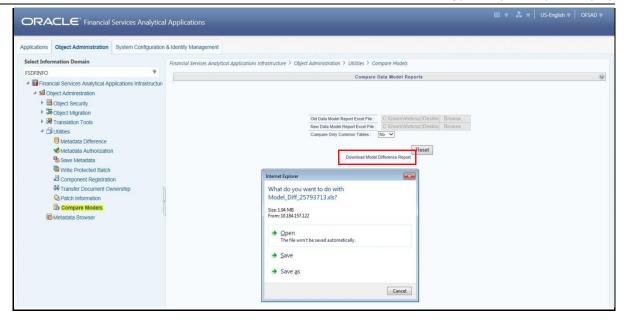
**4.** The Compare Only Common Tables option is "No" by default, select "Yes" only if required.

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 is generated.





6. Click Download Model Difference Report link and Save the report.

## 39 OIDF Interface with QMR 2.0.0.0.0

This chapter provides information about Metadata Browser in the Oracle Insurance Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topics:

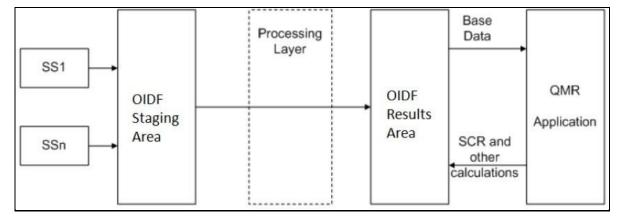
- Overview
- Prerequisites
- Description of Extracts from OIDF
- Procedure to Generate Flat Data Files from OIDF
- Procedure to Upload SCR Data
- Data Mapping
- Data Population
- Input Data Preparation
- Run Overview

## **39.1.1** Overview

Oracle Insurance Data Foundation (OIDF) stores insurance specific data of an Insurance Company covering wide range of functions such as underwriting, policy, premium, claim, risk numbers, valuations, and risk reporting.

QMR is a Quantitative Management Reporting application from Oracle. QMR is a Hyperion Financial Management (HFM) based application and is used for Solvency II regulatory reporting. QMR produces highly formatted Quantitative Reporting Template (QRT) based reports as specified by European Insurance and Occupational Pensions Authority (EIOPA).

QMR integration refers to data flow between System Source (SS) of OIDF and QMR application. OIDF consists of staging and reporting area tables. This integration is between result data model and QMR.



The base data from source systems resides in OIDF staging area. From there, it moves to the OIDF processing area. The data is then processed and moved into the OIDF results area.

Data flow between QMR and OIDF is a two way process:

- 1. Data is extracted from OIDF using this interface and uploaded into the QRM 2.0.0.0.0 application. The application QMR 2.0.0.0.0 is then used to generate QRT based reports.
- 2. SCR numbers calculated in QMR will then be ported back into OIDF.

## 39.1.2 Prerequisites

For the installation of QMR - OIDF Integration, the following prerequisites need to be completed:

- Installation of QMR 2.0.0.0.0 application.
- Installation of OIDF 8.0.7.0.0

## 39.1.3 Description of Extracts from OIDF

OIDF extracts provide data pertaining to the various QRT reports in the granularity and format required by QMR

Any changes in QMR data requirement may require changes to be made to the OIDF extracts as well. Files required by QMR application depend upon the entity type and their location. Details of the kind of files generated for each entity type is as follows:

If the Legal Entity is the Group Holding Company:

- Global Data file containing exchange rates and inflation rates is generated.
- Group Data file containing ownership information, group reporting percentages, and group SCR capital add-ons is generated.
- Five files containing details of Intra Group Transactions 4 Files, Risk Concentration 1 File for processing through FDM.

If the Legal Entity is an Insurance Company within the group and located in European Economic Area (EEA):

- A single file containing data for all schedules processed in HFM (Balance Sheet, Own Funds, Re-Insurance, SCR and MCR inputs, Technical Provisions, Country, and Cover) is generated.
- Eleven files containing data for each schedule processed in FDM (Assets 8 Files, Product Details 3 Files) is generated.

If the Legal Entity is an Insurance Company within the group located outside European Economic Area (EEA):

• A single file with Insurance entity MCR, SCR, and OF equivalent data only is generated.

If the Legal Entity is Non-Insurance Company within the group:

• A single file with MCR, SCR, and OF equivalent data only is generated.

Further details regarding the QRT reports linked to each entity type is given as follows:

| SI. No. | Extract Name        | Description                         |
|---------|---------------------|-------------------------------------|
| 1       | Legal Entity – Solo | Provides Data for following reports |
|         |                     | BS-C1                               |
|         |                     | BS-C1D                              |
|         |                     | Cover-A1A                           |
|         |                     | Group-G01                           |
|         |                     | MCR-B4                              |
|         |                     | OF (Annual)                         |
|         |                     | Re-J1-Non Life                      |
|         |                     | Re-J1-Life                          |
|         |                     | Re-J2                               |

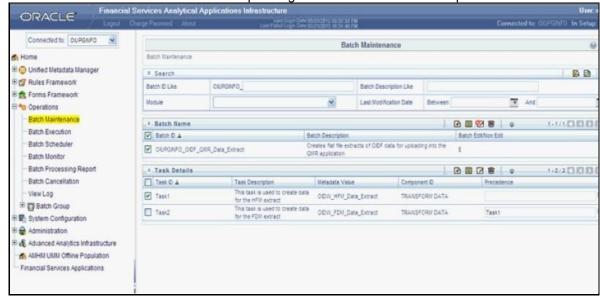
| SI. No. | Extract Name                        | Description  |
|---------|-------------------------------------|--|
|         |                                     | Re-J3 Re-SPV SCR-B2A SCR-B2B SCR-B2C SCR-B3A SCR-B3B SCR-B3C SCR-B3D SCRB-3E SCRB-3F SCRB-3F SCR-B3G TP-E1 TP-E2 TP-E3 TP-E4 TP-E6 TP-E7A TP-E7B TP-F1 TP-F2 TP-F2 TP-F4 |
| 2       | Legal Entity – Group                | P-Own P-Con OF Group SCR-B2A   |
| 3       | Legal Entity-RFR (Ring Fenced Fund) | BS-C1 OF (Annual) SCR-B2A SCR-B2B SCR-B2C SCR-B3A SCR-B3B SCR-B3B SCR-B3C SCR-B3D SCR-B3D  |
| 4       | Legal Entity – Non Insurance Entity | 1. Group-G04   |
| 5       | Legal Entity – Non EEA Entity       | 1. Group-G03   |
| 6       | Global Data                         | Exchange Rates Inflation Rates Discount Rates Correlation Data   |
| 7       | Other Individual Files              | IGT1<br>IGT2   |

| SI. No. | Extract Name | Description |
|---------|--------------|-------------|
|         |              | IGT3        |
|         |              | IGT4        |
|         |              | ASSETS-D1   |
|         |              | ASSETS-D1S  |
|         |              | ASSETS-D20  |
|         |              | ASSETS-D2T  |
|         |              | ASSETS-D3   |
|         |              | ASSETS-D4   |
|         |              | ASSETS-D5   |
|         |              | ASSETS-D6   |

## 39.1.4 Procedure to Generate Flat Data Files from OIDF

The following steps enlist the process to generate the flat data files from OIDF, for QMR – HFM and Financial Data Quality Management (FDM) Applications:

- 1. Login to the OFSAAI Home page.
- 2. Select the appropriate infodom.
- 3. Navigate to Batch Maintenance in the Operations Menu in the left hand side panel.
- **4.** The tasks for OIDF to QMR App Data Extract are bundled under the batch [Infodom\_Name]\_OIDF\_QMR\_Data\_Extract.
- 5. Select the batch checkbox and its corresponding tasks checkbox to edit the parameters of the task.
- 6. Select the batch checkbox and its corresponding tasks checkbox to edit the parameters of the task.



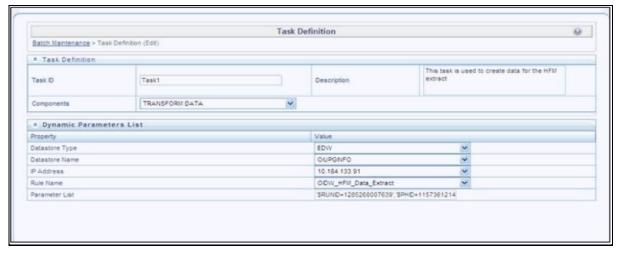
7. Click the Edit button for Task 1 (HFM Extract Task) and edit its parameter list.

Leaving the primary parameters (\$RUNID, \$PHID, \$EXEID, \$RUNSK) unchanged, set values for the following parameters.

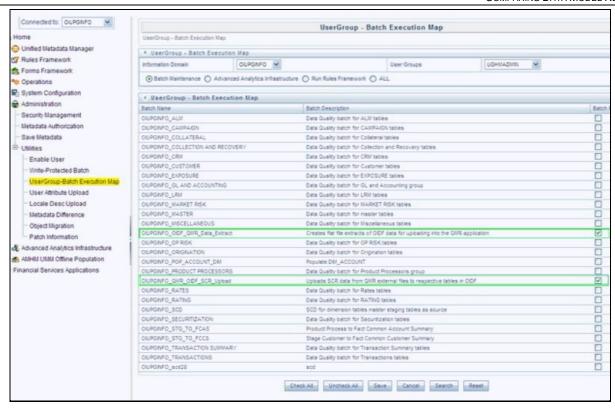
| \$QMRRUNSK=1           | Set Run SKey for which the QMR data needs to be extracted.               |
|------------------------|--|
| \$RPSTARTDATE=20120101 | Set the Reporting Period Start Date in YYYYMMDD Format.                  |
| \$FINANCIAL_PRD=QA     | Set the Financial Period for the required Data Extract (Q1/Q2/Q3/Q4/QA). |

- **8.** Replace the parameter list (preceded with the parameter names) in Task Definition and re-save the task.
- **9.** Click edit for Task 2 (FDM Extract Task) and edit its parameter list, similar to Task 1. Leaving the primary parameters (\$RUNID, \$PHID, \$EXEID, \$RUNSK) unchanged, set values for the following parameters.

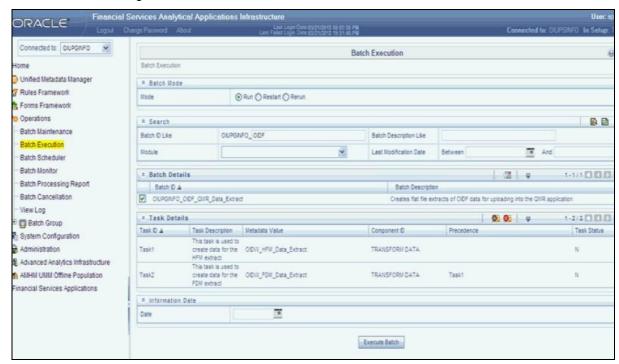
| \$QMRRUNSK=1           | Set Run SKey for which the QMR data needs to be extracted.               |
|------------------------|--|
| \$RPSTARTDATE=20120101 | Set the Reporting Period Start Date in YYYYMMDD Format.                  |
| \$FINANCIAL_PRD=QA     | Set the Financial Period for the required Data Extract (Q1/Q2/Q3/Q4/QA). |



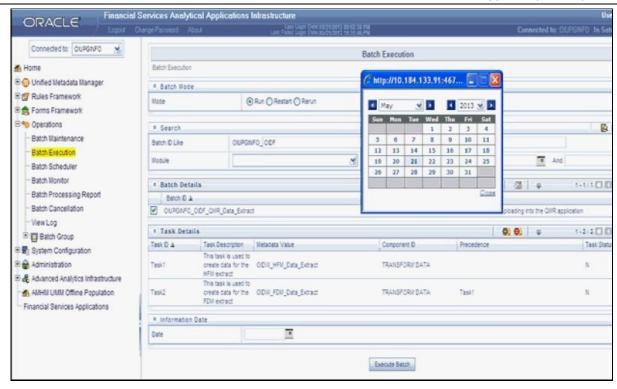
- **10.** Replace the parameter list (preceded with the parameter names) in Task Definition and re-save the task.
- **11.** Map the batch or batches to be executed to the user group in the UserGroup-Batch Execution Map screen in the Administration menu.



12. Navigate to Batch Execution in the Operations menu in the left hand side panel and select the batch [Infodom\_Name]\_OIDF\_QMR\_Data\_Extract for execution and provide the Information Date from the Calendar dialog box.



- **13.** Execute the Batch.
- **14.** To check the status of the batch click Batch Monitor in the Operations menu.



- **15.** Verify whether the batch is executed successfully, by confirming presence of all expected data file extracts under the defined Oracle Directory path for QMR\_EXTRACTS (refer Oracle Directory Script Creation). Data extract files generated would be in the QMR\_Extract Directory as:
  - HFM Global Data Files will be named as:
    - HFM\_Global\_<<MIS Date>>\_<<Run Skey>>.dat
  - HFM Group Data Files will be named as:
    - HFM\_Group\_<<MIS Date>>\_<<Run Skey>>.dat
  - HFM Insurance Non EEA Data Files will be named as:
    - HFM\_InsuranceNonEEA\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat
  - HFM Ring Fenced Fund Data Files will be named as:
    - HFM\_RFF\_<<EntityCode>><<MIS Date>>\_<<Run\_Skey>>.dat
  - HFM Insurance Data Files will be named as:
    - HFM\_InsuranceSolo\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat
  - HFM Non Insurance Data Files will be named as:
    - HFM\_NonInsurance\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat
  - FDM Group Data Files will be named as:
    - FDM\_Group\_<<ReportName>>\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat
  - EEA data Data Files will be named as:
    - FDM\_EEA\_<<ReportName>>\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat
  - Ring Fenced Fund Data Files will be named as:
    - FDM\_Insurance\_<<ReportName>>\_<<Entity Code>><<MIS Date>>\_<<Run\_Skey>>.dat

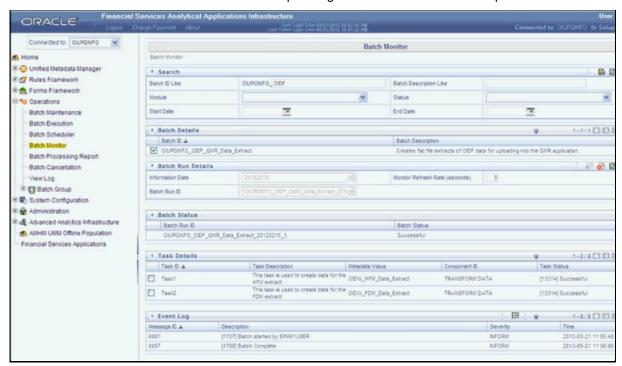
## 39.1.5 Procedure to Upload SCR Data

The following steps enlist the process to upload Solvency Capital Requirements (SCR) data from QMR external flat (HFM Extracted File with calculated SCR and Minimum Capital Requirements (MCR) values) files to respective OIDF tables:

**NOTE** 

The data extracted from HFM must include calculated data.

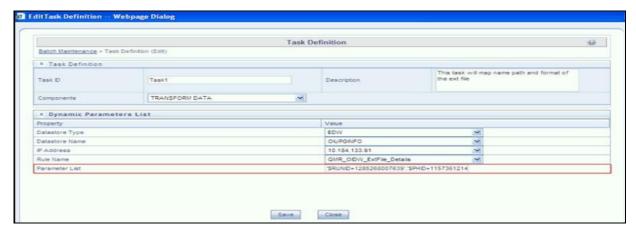
- Verify the SCR (calculated values) Extract Data File from HFM under the defined Oracle Directory DIR\_QMR\_UPLOAD\_FILES
- 2. Login to the OFSAAI Home page.
- 3. Select the appropriate Infodom.
- 4. Navigate to Batch Maintenance in the Operations menu in the left hand side panel.
- The tasks for OIDF to QMR App Data Extract are bundled under the batch [Infodom\_Name]\_QMR\_OIDF\_SCR\_Upload.
- 6. Select the batch checkbox and its corresponding tasks checkbox to edit the parameters for the task.



 Click the Edit button for Task 1 (QMR\_OIDW\_ExtFile\_Details) and edit its parameter list. Leaving the primary parameters (\$RUNID, \$PHID, \$EXEID, \$RUNSK) unchanged, set values for the following parameters.

| Parameter                           | Set Value  |
|-------------------------------------|--|
| \$EXT_DIR_NAME=DIR_QMR_UPLOAD_FILES | Set Oracle Directory where the HFM SCR Extract Data is placed. |

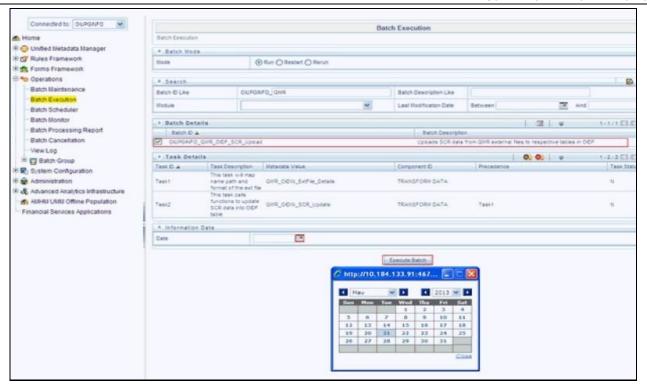
| Parameter  | Set Value  |
|--|--|
| \$EXT_FILE_NAME=QMR_SCR_Data_2011-QA_LE 01_Extract.dat | Set the 'HFM SCR Extract Filename' to be processed present under the Oracle Directory. |



- 8. Replace the parameter list (preceded with the parameter names) in the Task Definition and re-save the Task.
- 9. Click Edit for Task 2 (QMR\_OIDW\_SCR\_Update) and edit its parameter list. Leaving the primary parameters (\$RUNID, \$PHID, \$EXEID, \$RUNSK) unchanged, set values for the following parameters.

| Parameter          | Set Value   |
|--------------------|---|
| \$QMRDATE=20120101 | Set the MIS Date for which the QMR data needs to be updated in OIDF in YYYYMMDD Format. |
| \$QMRRUNSK=1       | Set Run SKey for which the QMR data needs to be updated in OIDF.                        |
| \$QMRGAAP=IFRS     | Set the GAAP ID for which the QMR data needs to be updated in OIDF.                     |

- **10.** Replace the parameter list (preceded with the parameter names) in Task Definition and re-save the task.
- **11.** Map the batch or batches to be executed to the user group in UserGroup-Batch Execution Map screen in the Administration menu.
- 12. Navigate to Batch Execution in the Operations menu in the left hand side panel and select the batch ([Infodom\_name]\_QMR\_OIDF\_SCR\_Upload) for execution and provide the Information Date from the Calendar dialog box.



- 13. Execute the Batch.
- **14.** Verify whether the batch is executed successfully by confirming presence of calculated SCR and MCR data in all the relevant tables in OIDF.



#### 39.1.6 **Data Mapping**

All reporting is based on standard codes, which are often used as codes and filters. For more information on the relevant scripts to be executed for the seeded data and download data tables, refer to Oracle Insurance Solvency II QMR Interface Download Specifications .

The following seeded data are to be populated in the Dimension/Setup Tables:

| Entity Name  | Table Name                     |
|--|--------------------------------|
| Business Class Dimension                           | Dim_Business_Class             |
| Business Segment Dimension                         | Dim_Business_Segment           |
| Capital Computation Group Dimension                | Dim_Capital_Comp_Group         |
| Capital Computation Method Dimension               | Dim_Capital_Computation_Method |
| Dimention Cash Flow Type                           | Dim_Cash_Flow_Type             |
| Dimension Claim Status                             | Dim_Claim_Status               |
| Country Dimension                                  | Dim_Country                    |
| Coverage Type Dimension                            | Dim_Coverage_Type              |
| Currency Dimension                                 | Dim_Currency                   |
| Economic Zone Dimension                            | Dim_Economic_Zone              |
| Dimension Entity Type                              | Dim_Entity_Type                |
| Fund Type Dimension                                | Dim_Fund_Type                  |
| Insurance Risk Measures Dimension                  | Dim_Insurance_Risk_Measure     |
| Insurance Risk Type Dimension                      | Dim_Insurance_Risk_Type        |
| Dimension Intra Group Transaction Type             | Dim_Intra_Group_Txn_Type       |
| Dimension Market Risk Position                     | Dim_Market_Risk_Position       |
| Product Benefits Type Dimension                    | Dim_Product_Rider_Type         |
| Region Dimension                                   | Dim_Region                     |
| Reporting Line Dimension                           | Dim_Rep_Line                   |
| Run-Off Measure Dimension                          | Dim_Run_Off_Measures           |
| Run Types  | Dim_Run_Type                   |
| Scenario Dimension                                 | Dim_Scenario                   |
| Standard Lob Dimension                             | Dim_Standard_Lob               |
| Standard Major Lob Dimension                       | Dim_Standard_Major_Lob         |
| Standard Product Type Dimension                    | Dim_Standard_Product_Type      |
| Standard Mitigant Type Dimension                   | Dim_Std_Mitigant_Type          |
| Generally Accepted Accounting Principles Dimension | Dim_Gaap                       |

#### 39.1.7 **Data Population**

#### 39.1.7.1 **DIM Table Population**

The sequence of Data Population for Dimension tables is a follows:

| F // No                                     | THE NAME OF THE PARTY OF THE PA |  |
|---|--|--|
| Entity Name                                 | Table Name   |  |
| Account Dimension                           | Dim_Account  |  |
| Account Identifier Type Dimension           | Dim_Account_Identifier_Type  |  |
| Bands Dimension                             | Dim_Bands  |  |
| Cedent Asset Classification Dimension       | Dim_Cedent_Asst_Classification   |  |
| Claim Dimension                             | Dim_Claim  |  |
| Collateral Purpose Dimension                | Dim_Collateral_Purpose   |  |
| Dimension Consolidation Approach            | Dim_Consolidation_Approach   |  |
| Dimension Legal Nature Of Company           | Dim_Constituted_Form   |  |
| Contract Unwind Trigger Dimension           | Dim_Contract_Unwind_Trigger  |  |
| Credit Rating Dimension                     | Dim_Credit_Rating  |  |
| Date Dimension                              | Dim_Dates  |  |
| Account Dimension                           | Dim_Exposure   |  |
| Exposure Type Dimension                     | Dim_Exposure_Type  |  |
| Financial Year Dimension                    | Dim_Financial_Year   |  |
| Fund Dimension                              | Dim_Fund   |  |
| Hedge Status Dimension                      | Dim_Hedge_Status   |  |
| Hedge Type Dimension                        | Dim_Hedge_Type   |  |
| Hedging Strategy Dimension                  | Dim_Hedging_Strategy   |  |
| Homogenous Risk Group Dimension             | Dim_Homogenous_Risk_Group  |  |
| Insurance Loss Modeling Component Dimension | Dim_Ins_Loss_Modeling_Comp   |  |
| Instruments Contracts Dimension             | Dim_Instrument_Contract  |  |
| Insurance Broker Role Dimension             | Dim_Insurance_Broker_Role  |  |
| Insurance Scalar Factor Dimension           | Dim_Insurance_Scalar_Factor  |  |
| Dimension Legal Entity Group                | Dim_Legal_Entity_Group   |  |
| Line Of Business Dimension                  | Dim_Lob  |  |
| Methodologies Master                        | Dim_Methodologies  |  |
| Mitigant Dimension                          | Dim_Mitigant   |  |
| Organization Structure Dimension            | Dim_Org_Structure  |  |
| Participation Type Dimension                | Dim_Participation_Type   |  |
| Party Dimension                             | Dim_Party  |  |
| Dimension Policy                            | Dim_Policy   |  |

| Entity Name                              | Table Name                    |  |
|--|-------------------------------|--|
| Dimension Policy Party                   | Dim_Policy_Party              |  |
| Portfolio Type Dimension                 | Dim_Portfolio_Type            |  |
| Dimension Premium Payment Type           | Dim_Premium_Payment_Type      |  |
| Product Dimension                        | Dim_Product                   |  |
| Product Type Dimension                   | Dim_Product_Type              |  |
| Reinsurance Progessive Layer Dimension   | Dim_Reins_Progressive_Layer   |  |
| Reinsurance Progessive Section Dimension | Dim_Reins_Progressive_Section |  |
| Reinsurance Contract Dimension           | Dim_Reinsurance_Contract      |  |
| Reinsurance Program Dimension            | Dim_Reinsurance_Program       |  |
| Dimension Reinsurance Risk Type          | Dim_Reinsurance_Risk_Type     |  |
| Dimension Reinsurer Type                 | Dim_Reinsurer_Type            |  |
| Run Dimension                            | Dim_Run                       |  |
| Spv Authorization Options Dimension      | Dim_Spv_Authorization_Options |  |
| Dimension Spv Trigger Type               | Dim_Spv_Trigger_Type          |  |
| Sub Account Dimension                    | Dim_Sub_Account               |  |
| Dimension Underwriting Model Type        | Dim_Underwriting_Model_Type   |  |
| Valuation Method Dimension               | Dim_Valuation_Method          |  |

# 39.1.8 FCT Table Population

The sequence of data population for FCT tables is as follows

| Entity Name                                 | Table Name                     |  |
|---|--------------------------------|--|
| Fact Business Performance Details           | Fct_Business_Performance_Detl  |  |
| Fact Capital Addon                          | Fct_Capital_Addon              |  |
| Fact Claim Details                          | Fct_Claim_Details              |  |
| Fact Claims Inflation Rate                  | Fct_Claims_Inflation_Rate      |  |
| Fact Counterparty Credit Risk Exposure      | Fct_Counterparty_Cr_Exposure   |  |
| Fact Entity Parent Information              | Fct_Entity_Parent_Info         |  |
| Fact Financial Elements                     | Fct_Financial_Element          |  |
| Fact Fund Capital Details                   | Fct_Fund_Capital_Details       |  |
| Fact Homogeneous Risk Group                 | Fct_Homogeneous_Rsk_Grp_Detail |  |
| Fact Homogeneous Risk Group Cash Flow       | Fct_Hrg_Cashflow               |  |
| Fact Insurance Internal Models Risk Details | Fct_Ins_Internal_Mdl_Risk_Dtls |  |
| Fact Insurance Scalar Factors               | Fct_Ins_Risk_Scalar_Factors    |  |
| Fact Insurance Risk Valuation Factors       | Fct_Ins_Risk_Valuation_Factors |  |

| Entity Name                               | Table Name                     |  |
|---|--------------------------------|--|
| Fact Insurance Correlation Matrix         | Fct_Insurance_Correlation_Mtrx |  |
| Fact Insurance Recoverables               | Fct_Insurance_Recoverables     |  |
| Fact Insurance Risk Details               | Fct_Insurance_Risk_Details     |  |
| Fact Insurance Risk Summary               | Fct_Insurance_Risk_Summary     |  |
| Fact Intragroup Transaction Details       | Fct_Intra_Group_Txn_Details    |  |
| Fact Legal Entity Details                 | Fct_Legal_Entity_Details       |  |
| Fact Legal Entity Group Details           | Fct_Legal_Entity_Group_Details |  |
| Fact Mitigants                            | Fct_Mitigants                  |  |
| Fact Own Fund Balances                    | Fct_Own_Fund_Balances          |  |
| Fact Own Fund Details                     | Fct_Own_Fund_Details           |  |
| Fact Policy Details                       | Fct_Policy_Details             |  |
| Fact Portfolio Asset Data                 | Fct_Portfolio_Asset_Data       |  |
| Fact Product Riders                       | Fct_Product_Rider_Details      |  |
| Fact Product Statistics                   | Fct_Product_Statistics         |  |
| Fact Reinsurance Policy Details           | Fct_Reinsurance_Policy_Details |  |
| Fact Reinsurance Spv Details              | Fct_Reinsurance_Spv_Details    |  |
| Fact Run-Off Detail                       | Fct_Run_Off                    |  |
| Fact Development Year-Wise Run-Off Detail | Fct_Run_Off_Development_Year   |  |
| Fact Standard Insurance Lob               | Fct_Std_Insurance_Lob          |  |
| Fact Sub Account Details                  | Fct_Sub_Account_Details        |  |
| Fact Sub Account Mitigant Mapping         | Fct_Sub_Acct_Mitigant_Mapping  |  |
| Exchange Rate History                     | Fsi_Exchange_Rate_Hist         |  |
| Run Parameters                            | Run_Parameters                 |  |

## 39.1.9 Input Data Preparation

#### 39.1.9.1 Assumptions regarding data input

- The currency conversion is expected to be handled by the ETL layer. The data, specifically for measure columns is assumed to be converted into local currency and then loaded in the system.
- User needs to make changes in case NCY / RCY columns are required.
- The post offset amount in FCT\_MARKET\_RISK\_EXPOSURES has to be a download after taking into account any offsetting logic that might be applicable, or the number of underlying in the contract. This value must be obtained after position conversion (if applicable).
- Scope of data extracts excludes the consolidation process. If an execution is done for the group entity, the data (for example: capital, GL based reports for composites) for group entity must be uploaded separately. Data for group entity shall not be derived from solo entity's data.

#### 39.1.9.2 General Data Preparation Guidelines

- Granular Risk numbers are primarily stored against HRG, Policy, Sub account, credit exposures and so on. Depending on the requirement, you need to provide data as a download.
- Intra group transaction types and respective tables The following Intra group transaction types are sourced from FCT INTRA GROUP TXN DETAILS:
  - Bonds / Debt collateralized
  - Bonds uncollateralized
  - Equity type dividends
  - Equity type shares / participations
  - Equity type others
  - Debt uncollateralized

However, internal reinsurance between (re)insurance undertakings of a group will be sourced from FCT REINSURANCE POLICY DETAILS.

- On role of entity in each data table, all the data elements (For example, table FCT\_POLICY\_DETAILS) are for an entity which has done the actual transaction (in this case sold policy) or to whom transaction belongs to and not the group entity. Hence if requirement is for group entity report, all the tables must be populated with Group Entity as respective entity and not the individual entity.
- Fct\_Reinsurance\_Policy\_Details stores the data at insurance contract level. Progressive layer,
  progressive section number, standard line of business and reinsurer, apart from contract sequence
  number, identify the reinsurance contract. Few measure values like Sum Insured, Underwriting model
  amount will remain the same for above combination of parameters, whereas measures like
  reinsurance recoverable, premium provisions and claim provisions will differ as per requirement. For
  example, reinsurance recoverable would strongly depend on Line of Business and/or reinsurer.
- The user needs to specify the calendar in DIM FINANCIAL CALENDER. This will be used to calculate Year till date (YTD) numbers. Calendars are attached to entity. Calendar of Legal entity for which RUN is executed will be used for all the reports.
- In case of Fct\_Business\_Performance\_Detl, though F\_POLICY\_FPS\_IND,
   N\_BUSINESS\_CLASS\_SKEY, N\_ECONOMIC\_ZONE\_SKEY are part of primary key. Populate the
   skeys as -1 and f\_policy\_fps\_ind as "N" in case of dashboard or wherever regulatory reporting is not
   required.
- In DIM\_SUB\_ACCOUNT, A more granular level than the account/instrument (asset) is arrived constituting Account Number or Instrument Code, Portfolio Type Code, Collateral Pledged Purpose Code. (v\_account\_number/v\_instrument\_code, v\_portfolio\_type\_code, v\_coll\_pledge\_purpose\_code). A sub account code is assigned for the said combination. The details of this sub account have to be given in FCT SUB ACCOUNT DETAILS.
  - For example, in FACT INSURANCE RISK SUMMARY the dimension dim INSURANCE RISK TYPE contains risk types(mortality risk, lapse risk), DIM INSURANCE RISK MEASURE contains definition of the measure(Gross SCR,NET SCR,ASSETS) and DIM CAPITAL COMPUTATION METHOD contains method used for computing risk numbers, which defines the way business is carried out.
- In case of fct\_insurance\_risk\_details, though n\_std\_major\_lob\_skey,n\_region\_skey,n\_country\_skey are part of primary keys, Populate the skeys as '-1' wherever regulatory reporting is not required.
  - For example in report SCRB3E, region and major lob are used for reporting geographical diversification, but country is not required. Hence this column should be populated as '-1'.

- Solvency utilizes few tables from OIDF (Oracle Insurance Data Foundation) which are common to many applications and hence their data storage is arrived according to the requirement of these applications. Hence all the columns of following table are not mandatory for Solvency II application. However, since these are functionally rich table structures, you can make use of these placeholders suitably if required. Also relevance of columns from Solvency II perspective should be referred in Download Specifications.
  - Dim Account
  - Dim\_Credit\_Rating
  - Dim Exposure
  - Dim\_Instrument\_Contract
  - Dim\_Party
  - Dim\_Product

#### 39.1.10 Run Overview

RUN defines the purpose of data execution. Few examples are Solvency Run, Regulatory Reporting Run and so on.

In DIM RUN table, Run Surrogate Key (Run Skey) is the primary attribute in DIM RUN Table. This is to identify a particular set of data, which is defined by combination of RUN ID and Execution Date for every execution or RUN EXECUTION IDENTIFIER.

- In each of the FCT table, data is characterized by combination of RUN SKEY, Business Type, Legal Entity and scenario code as appropriate. Details of the same are given below.
  - Run Skey: is a Surrogate key for a particular processed data set. This is a numeric field and is referenced to the table DIM\_RUN that contains the list of all such run surrogate keys. This table is required to be updated with the N\_Run\_Skey each time a report for any new instance is to be generated assuming other paramrters constant. Multiple executions on same FIC MIS DATE will have different run skey.
  - FIC\_MIS\_DATE/Extraction Date/Reporting Date: is a common date identifier for the records across all the tables for which you want to generate the report.
  - Business Type: can be Life, Non Life or Composite. This is not part of DIM RUN table, but all FCT tables have these as an important identifier.
  - Entity: is the list of legal entities for the institute is provided in the table DIM\_ORG\_STRUCTURE.
  - Scenario: the Various Scenarios used by entity for testing uncertain future developments. List of Scenarios needs to be stored in DIM SCENARIO table.
- In DIM RUN, F REPORTING FLAG should be marked 'Y' for all the run executions which will be used for reporting. If there are multiple executions for the same RUN ID and FIC MIS DATE, the reporting flag should be used to highlight one specific execution for reporting. It is assumed that single RUN will contain all the information required. Multiple scenarios and multiple FIC MIS DATE for a single RUN ID is assumed to provide the required flexibility.
- Scenario and Baseline data should be stored in the same run and are differentiated using scenario code in the fact table.
- For each Run execution, FCT\_LEGAL\_ENTITY\_GROUP\_DETAILS will have details of Legal Entity. If the run executed is SOLO execution then there will be one row entry in the stated table and lead entity and legal entity will have same entries. If the run executed is COMPOSITE execution then there will be 'n' rows entry in the stated table (where n = number of entities involved in the run), lead entity attribute will have entry of the Group entity and legal entity attribute will have entries of all the child

- entities to the group entity. Parent child relationship of the entities will be available in DIM\_ORG\_STRUCTURE.
- Executions can be done at two different levels, composite as well as for one business segment entity.
   For each type of the execution composite and single business segment data should be separately calculated, solo executions will not be consolidated for composite execution.

For the list of staging area tables and attributes that can be used for QMR, refer the Oracle\_Insurance\_Solvency\_II\_QMR\_Interface\_-\_DL\_Specs\_4 spreadsheet.

# 40 Data Quality Rules Execution

This chapter provides information about Data Quality Rules Execution in the Oracle Insurance 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

## 40.1.1 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:

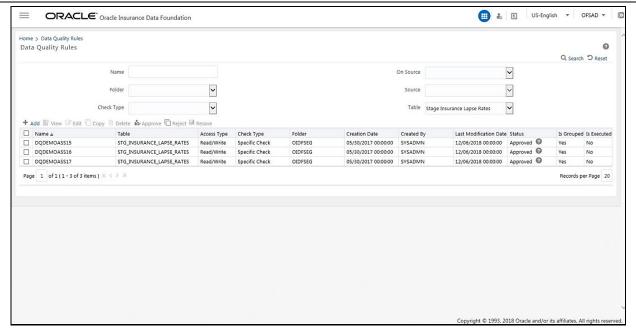
- Data Quality Rules
- Data Quality Groups Summary

#### 40.1.1.1 Data Quality Rules

Data Quality Rules 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.

Navigation to Data Quality Rules is Data Management Framework > Data Quality Framework > Data Quality Rules.



The Data Quality Rules 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 Rules 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.

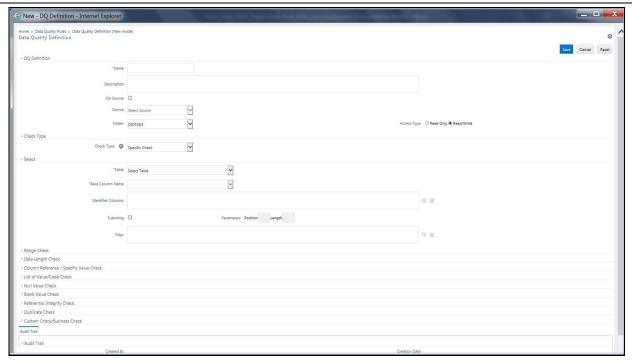
For more information, refer to Oracle Financial Services Analytical Applications Infrastructure User Manual.

#### 40.1.1.2 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 Rules 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.



- 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 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.
- (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.

- **4.** 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.

**5.** 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.

**6.** Specify the Assignment details as tabulated.

| 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 exist 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.  |  |  |

| Field   | Description   |
|---------|---|
| Message | Select the required Message for the Severity from the drop down list. |

7. 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.

8. Click Save. The defined Data Quality Rule definition is displayed in the Data Quality Rule Summary screen with the status as "Saved".

#### 40.1.1.3 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.

#### 40.1.1.4 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.
- 3. Update the details as required.

For more information, see Create Data Quality Rule section.

4. Click Save to update the changes.

#### 40.1.1.5 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.

- 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".

#### 40.1.1.6 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 the i button to view the Approver comments in a pop-up.

#### 40.1.1.7 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.

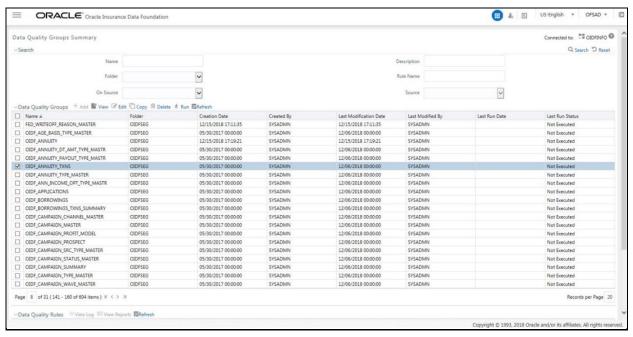
## 40.1.2 Data Quality Groups Summary

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.

Navigation to Data Quality Groups Summary is Data Management Framework > Data Quality Framework > Data Quality Groups 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.

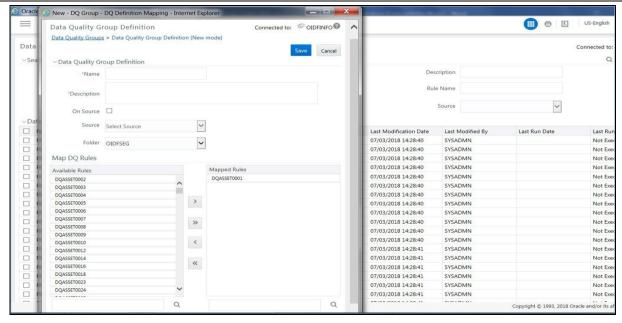
You can also make use of Search and Pagination options to search for a DQ Group definition based on Group Name, Description, or Rule Name and view the existing DQ Group definitions within the system.

#### 40.1.2.1 **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.



- 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 the 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 the Find button. S

**4.** Click Save. The defined DQ group is listed in the Data Quality Rule Summary screen and can be executed for processing.

#### 40.1.2.2 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.

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%.

- 4. 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

#### 40.1.2.3 View Logs screen.

For more information, see View Data Quality Group Summary Log section.

#### 40.1.2.4 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.

#### 40.1.2.5 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.

#### 40.1.2.5.1 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.

#### 40.1.2.5.2 **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.

#### 40.1.2.6 **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:

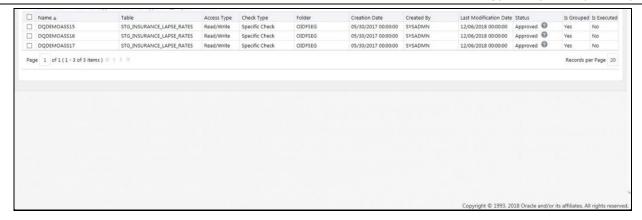
- 1. Select the check box adjacent to the required Group Name whose details are to be removed.
- 2. Click Delete button from the Data Quality Groups tool bar.
- 3. Click OK in the information dialog to confirm deletion.

#### 40.1.3 **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 in 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:



## 40.1.4 Data Quality Groups for Staging Tables

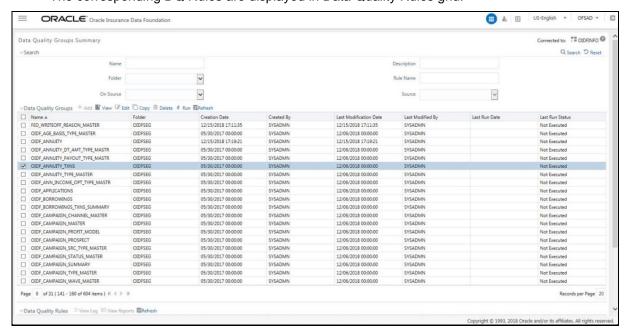
To execute any DQ rule, a Group must be created and the rules for execution has to be mapped with this group. For each staging table, a group has to be created and rules for these particular table have to be mapped under this Group.

For more information regarding Group Execution, refer to the section Execute Data Quality Group as follows. The DQ\_Group\_Mapping spreadsheet displays the total groups and corresponding Rules mapped to that Group.

#### 40.1.4.1 DQ Group Execution

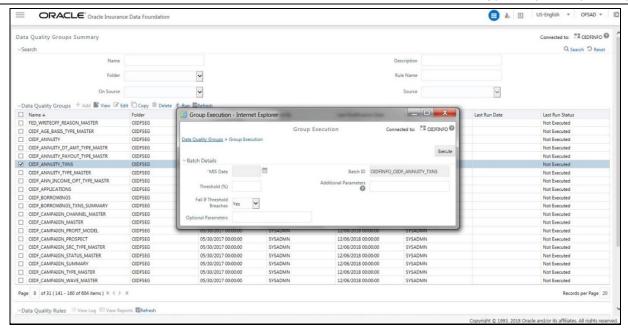
You can execute the DQ Rules either from Data Quality Group Summary window or via a Batch execution. To execute the Data Quality Groups from the Data Quality Groups Summary window:

Select the check box adjacent to the Group, you want to execute.
 The corresponding DQ Rules are displayed in Data Quality Rules grid.



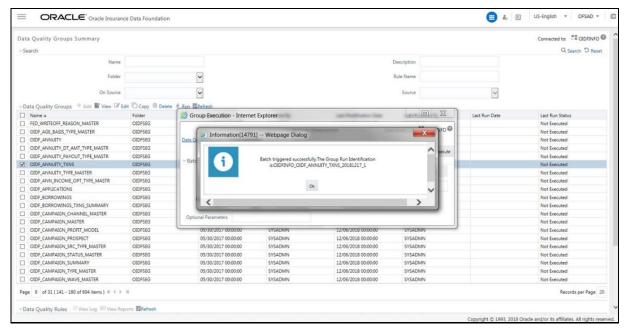
2. Click Run.

The Group Execution window is displayed.



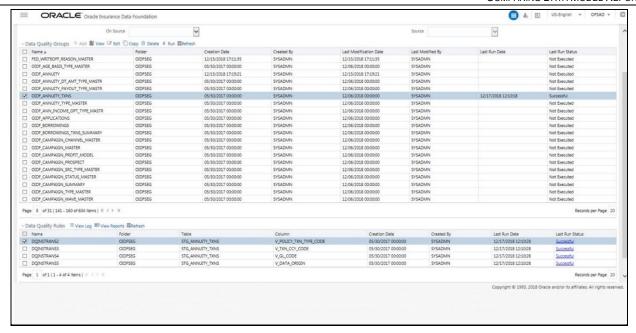
- 3. Select MIS Date.
- Click Execute button from the Group Execution window.

The execution is triggered and the following message is displayed.



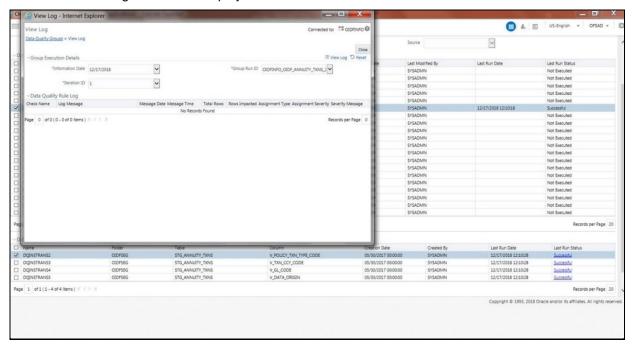
Once the execution is complete, you can view the details from the Data Quality Rules Summary window. To view the execution logs:

1. Select the check box adjacent to the rule, of which you want to see the execution log.



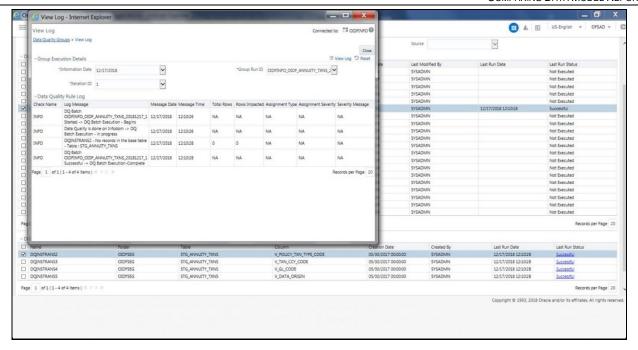
2. Click View Logs button.

The View Logs window is displayed.



- Select the Information Date from the drop down list.
- Select the Group Run ID from the drop down list.
- Select the Iteration ID from the drop down list.
- 6. Click the View Log button.

The details of the selected Group Execution are displayed.



#### 40.1.4.2 **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 OIDF.

| V_BATCH_ID                                  | V_BATCH_DESCRIPTION                                   |  |  |
|---|---|--|--|
| <infodom>_ALM</infodom>                     | Data Quality batch for ALM tables                     |  |  |
| <infodom>_CAMPAIGN</infodom>                | Data Quality batch for CAMPAIGN tables                |  |  |
| <infodom>_COLLATERAL</infodom>              | Data Quality batch for Collateral tables              |  |  |
| <infodom>_COLLECTION AND RECOVERY</infodom> | Data Quality batch for Collection and Recovery tables |  |  |
| <infodom>_CRM</infodom>                     | Data Quality batch for CRM tables                     |  |  |
| <infodom>_CUSTOMER</infodom>                | Data Quality batch for Customer tables                |  |  |
| <infodom>_EXPOSURE</infodom>                | Data Quality batch for EXPOSURE tables                |  |  |
| <infodom>_GL AND ACCOUNTING</infodom>       | Data Quality batch for GL and Accounting group        |  |  |
| <infodom>_LRM</infodom>                     | Data Quality batch for LRM tables                     |  |  |
| <infodom>_MARKET RISK</infodom>             | Data Quality batch for MARKET RISK tables             |  |  |
| <infodom>_MASTER</infodom>                  | Data Quality batch for master tables                  |  |  |
| <infodom>_MISCELLANEOUS</infodom>           | Data Quality batch for Miscellaneous tables           |  |  |
| <infodom>_OP RISK</infodom>                 | Data Quality batch for OP RISK tables                 |  |  |
| <infodom>_ORIGINATION</infodom>             | Data Quality batch for Origination tables             |  |  |

| V_BATCH_ID                              | V_BATCH_DESCRIPTION                              |
|---|--|
| <infodom>_PRODUCT PROCESSORS</infodom>  | Data Quality batch for Product Processors group  |
| <infodom>_RATES</infodom>               | Data Quality batch for Rates tables              |
| <infodom>_RATING</infodom>              | Data Quality batch for RATING tables             |
| <infodom>_SECURITIZATION</infodom>      | Data Quality batch for Securitization tables     |
| <infodom>_TRANSACTIONS</infodom>        | Data Quality batch for Transactions tables       |
| <infodom>_TRANSACTION SUMMARY</infodom> | Data Quality batchfor 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.

# 41 APPENDIX A Naming Conventions Used in OIDF Data Model

This Appendix chapter explains the various naming conventions used in OIDF Logical Data Model and Physical Data Model. In addition, the domains in PDM and LDM are also listed with their descriptions.

# 41.1 Naming Conventions Used in OIDF 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 Insurance Data Foundation (OIDF) Logical Data Model (LDM) and Physical Data Model (PDM).

- OIDF Logical Data Model Naming Conventions
- OIDF Physical Data Model Naming Conventions
- Domains (PDM and LDM)

## 41.1.1 OIDF Logical Data Model Naming Conventions

ERwin modeler tool allows two views namely Logical view and Physical view for each model file. Accordingly, the OIDF 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 OIDF LDM.

NOTE

The physical view of the OIDF LDM is not the same as the OIDF 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

# 41.1.2 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:

| Class of Entity       | Suffix              | Example                 |  |
|-----------------------|---------------------|-------------------------|--|
| Туре                  | Туре                | Asset-Liability Type    |  |
| Group                 | Group Product Group |                         |  |
| Code                  | Code                | Collection Status Code  |  |
| History               | History             | Account Balance History |  |
| Associative entities  | Мар                 | Customer Account Map    |  |
| Unique Identifier     | ID                  |                         |  |
| Reference Identifiers | Reference ID        |                         |  |

| Class of Entity            | Suffix      | Example  |
|----------------------------|-------------|--|
| Code                       | Code        |  |
| Number                     | Number      |  |
| Name                       | Name        |  |
| Description                | Description |  |
| Boolean Values             | Flag        | Y or N   |
| Indicator                  | Indicator   | More than one value ('A', 'B', 'C', and so on) |
| Percentage                 | Percent     |  |
| Rate                       | Rate        |  |
| Amount                     | Amount      |  |
| Balance                    | Balance     |  |
| Term                       | Term        |  |
| Frequency                  | Frequency   |  |
| Unit                       | Unit        |  |
| Record created by          |             | Created By                                     |
| Record modified by         |             | Modified By                                    |
| Record created on          |             | Created On                                     |
| Record modified on         |             | Modified On                                    |
| Record validity start date |             | From Date                                      |
| Record validity end date   |             | End Date                                       |

## 41.1.3 LDM Physical View Mode Table Naming Conventions

In the physical view of the OIDF 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.

| Logical View Name | Physical View Name       | Description  |
|-------------------|--------------------------|--|
| Account Addresst  | FSW_ACCT_ACCOUNT_ADDRESS | Account Address entity belonging primarily to Account (ACCT) subject area. |

## 41.1.4 OIDF Physical Data Model Naming Conventions

The OIDF 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 OIDF 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 OIDF Physical Data Model.

- PDM Logical View Mode Naming Conventions
- PDM Physical View Mode Naming Conventions

### 41.1.5 PDM Logical View Mode Naming Conventions

In the logical view model, OIDF 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:

| PDM Area                |                         | Prefix | Suffix       | Example                                |
|-------------------------|-------------------------|--------|--------------|--|
| Staging (Data Sourcing) | All Tables              | Stage  |              | Stage Reinsurance Contracts Held       |
| 20 a. og,               | Transaction Tables      |        | Transactions | Stage Reinsurance Issued Transactions  |
|                         | Master Tables           |        | Master       | Stage Reinsurance Contract Type Master |
| Results                 | All Fact Tables         | Fact   |              | Fact Policy Transactions               |
| (Datamart)              | All Dimension<br>Tables |        | Dimension    | Reinsurance Contract Type Dimension    |

### 41.1.5.1 PDM Physical View Mode Naming Conventions

In the physical view model, OIDF 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.

| PDM Area                |                         | Prefix | Suffix  | Example                        |
|-------------------------|-------------------------|--------|---------|--------------------------------|
| Staging (Data Sourcing) | All Tables              | STG_   |         | STG_REINSURANCE_CONTRACTS_HELD |
| Couronigy               | Transaction<br>Tables   |        | _TXNS   | STG_REINSURANCE_ISSUED_TXNS    |
|                         | Master Tables           |        | _MASTER | STG_RI_CONTRACT_TYPE_MASTER    |
| Results<br>(Datamart)   | All Fact Tables         | FCT_   |         | FCT_POLICY_TRANSACTIONS        |
|                         | All Dimension<br>Tables | DIM_   |         | DIM_RI_CONTRACT_TYPE           |

The table below lists the prefix and/or suffix used for columns names in the physical view of the OIDF PDM. The prefix or suffix depends on the class and data type of the column.

Column name prefix to indicate column datatype:

| Column Data Type | Prefix |
|------------------|--------|
| Varchar          | v_     |
| Number           | n_     |
| Date             | d_     |
| Flag             | f_     |

Column name suffix for common classes of columns:

| Column Class | Suffix        |
|--------------|---------------|
| Method       | _method       |
| Percentage   | _pct          |
| Rate         | _rate         |
| Balance      | _bal/_balance |
| Amount       | _amt/_amount  |
| Term         | _term         |
| Туре         | _type         |
| Frequency    | _freq         |

In addition, frequently occurring keywords in column names may be abbreviated as shown in the following table:

| Name                | Abbreviated Form | Name             | Abbreviated Form |
|---------------------|------------------|------------------|------------------|
| Accrual             | accr             | Local Currency   | Icy              |
| 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         | арр              | Number           | num              |
| Average             | avg              | Over Draft       | od               |
| Balance             | bal              | Option           | opt              |
| Business            | bus              | Origination      | org              |

| Name             | Abbreviated Form | Name          | Abbreviated Form |
|------------------|------------------|---------------|------------------|
| Currency         | ссу              | Percent       | pct              |
| Consolidation    | cons             | Payment       | pmt              |
| Customer         | cust             | Prepayment    | ppmt             |
| Description      | desc             | Product       | prod             |
| Dimension        | dim              | Source        | src              |
| Detail           | dtl              | Status        | stat             |
| Earnings at Risk | ear              | Statistics    | stats            |
| End Of Period    | еор              | 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             |               |                  |

#### 41.1.5.2 **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.

| 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)      |
| 11        | Phone_Fax_Number | NUMBER(15)         |
| 12        | Rate             | NUMBER(10,6)       |

| Serial No | Domain Name       | Domain Description |
|-----------|-------------------|--------------------|
| 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)     |

# 42 APPENDIX B: Standard Data Expectations

# 42.1 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 OIDF considers 8.9 as the value in the column instead of 0.089, because 0.089 is not valid as interest rate value.

## 43 APPENDIX C: How to Define a Batch

This Appendix provides information about How to Define a Batch in the Oracle Insurance Data Foundation application and step-by-step instructions to use this section.

This chapter includes the following topic:

Batch Definition

#### 43.1 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.

| 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 | It is mandatory to specify the Batch ID if Duplicate Batch option is selected.  |
| Batch is selected)     | Select the required Batch ID from the list.   |
| 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.

# 44 APPENDIX D Reporting Code Description

# 44.1 Reporting Code Description

| Report Code      | Report Name   |
|------------------|---|
| BS-C1            | Balance sheet   |
| BS-C1B           | Off-balance sheet items   |
| BS-C1D           | Assets and liabilities by currency  |
| Country - K1     | Activity by country   |
| Cover - A1A      | Premiums, claims & expenses - Annual  |
| Cover - A1Q      | Premiums, claims & expenses - Quarterly   |
| OF - B1A (solo)  | Own funds (annual template - for solo entities)   |
| OF - B1A (group) | Own funds (annual template - for groups)  |
| OF - B1Q (solo)  | Own funds (quarterly template - for solo entities)  |
| OF - B1Q (group) | Own funds (quarterly template - for groups)   |
| VA - C2A         | Summary analysis of changes in BOF  |
| VA - C2B         | Analysis of changes in BOF due to investments   |
| VA - C2C         | Analysis of changes in BOF due to technical provisions  |
| VA - C2D         | Analysis of changes in BOF due to own debt and other items                                    |
| SCR - B2A        | Solvency capital requirement (for undertaking on standard formula or partial internal models) |
| SCR - B2B        | Solvency capital requirement (for undertakings on partial internal models)                    |
| SCR - B2C        | Solvency capital requirement (for undertaking on full internal models)                        |
| SCR - B3A        | Solvency capital requirement - market risk  |
| SCR - B3B        | Solvency capital requirement - counterparty default risk                                      |
| SCR - B3C        | Solvency capital requirement - life underwriting risk   |
| SCR - B3D        | Solvency capital requirement - health underwriting risk                                       |
| SCR - B3E        | Solvency capital requirement - non-life underwriting risk                                     |
| SCR - B3F        | Solvency capital requirement - non-life catastrophe risk                                      |
| SCR - B3G        | Solvency capital requirement - operational risk   |
| MCR - B4A        | Minimum capital requirement (except for composite undertakings)                               |
| MCR - B4B        | Minimum capital requirement (for composite undertakings)                                      |
| Assets - D1      | Investments Data - Portfolio list (detailed list of investments) - Annual                     |
| Assets - D1Q     | Investments Data – Quarterly (Portfolio list or Quarterly summary)                            |
| Assets - D1S     | Structured products Data - Portfolio list   |
| Assets - D2O     | Derivatives data – open positions   |
| Assets - D2T     | Derivatives data - historical derivatives trades  |

| Report Code | Report Name  |
|-------------|--|
| Assets - D3 | Return on investment assets (by asset category)                        |
| Assets - D4 | Investment funds (look-through approach)                               |
| Assets - D5 | Securities lending and repos   |
| Assets - D6 | Assets held as collateral  |
| TP - F1     | Life and Health SLT Technical Provisions - Annual                      |
| TP - F1Q    | Life and Health SLT Technical Provisions - Quarterly                   |
| TP - F2     | Projection of future cash flows (Best Estimate - Life)                 |
| TP - F3     | Life obligations analysis  |
| TP - F3A    | Only for Variable Annuities - Description of guarantees by product     |
| TP - F3B    | Only for Variable Annuities - Hedging of guarantees                    |
| TP - F4     | Information on annuities stemming from Non-Life insurance obligations  |
| TP - E1     | Non-Life Technical Provisions - Annual                                 |
| TP - E1Q    | Non-Life Technical Provisions - Quarterly                              |
| TP - E2     | Projection of future cash flows (Best Estimate - Non-life)             |
| TP - E3     | Non-life Insurance Claims Information                                  |
| TP - E4     | Movements of RBNS claims   |
| TP - E6     | Loss distribution profile non-life                                     |
| TP - E7A    | Underwriting risks (peak risks)  |
| TP - E7B    | Underwriting risks (mass risks)  |
| Re - J1     | Facultative covers non-life & life                                     |
| Re - J2     | Outgoing Reinsurance Program in the next reporting year                |
| Re - J3     | Share of reinsurers  |
| Re - SPV    | Special Purpose Insurance Vehicles                                     |
| G01         | Entities in the scope of the group                                     |
| G03         | (Re)insurance Solo requirements  |
| G04         | Non-(re)insurance Solo requirements                                    |
| G14         | Contribution to group TP   |
| G20         | Contribution to Group SCR with D&A                                     |
| IGT1        | IGT - Equity type transactions, debt & asset transfer                  |
| IGT2        | IGT - Derivatives  |
| IGT3        | IGT - Internal Reinsurance   |
| IGT4        | IGT - Cost sharing, contingent liabilities, off BS items and other IGT |
| RC          | Risk Concentration   |

#### 45 **APPENDIX E Template to Generate Data Dictionary and Download Specification for ERwin 9.64.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 (9.64.x series), the existing procedure to generate DL specification using the published report templates fails in the 9.64.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 9.64.x, for all OFSAA data models qualified on OIDF 8.0.8.

#### 45.1 **Prerequisite**

Upgrade model to 9.x series before initiating generation of the DL specification.

#### 45.2 **Procedure**

Download the attached 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 OIDF version and ERwin version 9.64.x.

- 1. Ensure that the Erwin Data Modeler version is ERwin 9.64 or later.
- 2. Ensure that macros are enabled in this excel before execution.
- 3. Open the OFSAA data model in ERwin 9.64 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 the "Generate Report" button.
- 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 twoapplication 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 OIDF.

#### **OFSAAI Support Contact Details**

- Contact Infrastructure support at <a href="https://flexsupp.oracle.com">https://flexsupp.oracle.com</a> if you have installed ERM and FCCM applications.
- Raise an SR in <a href="https://support.oracle.com">https://support.oracle.com</a> if you have any queries related to EPM applications.

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If you find any errors or have any other suggestions for improvement, indicate the title and part number of the documentation along with the chapter/section/page number (if available) and contact the Oracle Support.

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