Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI)

User Guide

Release 8.1.1.0.0

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ORACLE Financial Services



OFS Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI) User Guide

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1 Preface

This section provides a brief description of the scope, the audience, the references, concepts, and the organization of the user guide and conventions incorporated into the user guide.

Topics:

- What is New in this Release for OFS REG REP OSFI
- Scope of the Guide
- Intended Audience
- <u>Access to Oracle Support</u>
- <u>Related Information Sources</u>
- How this Guide is Organized
- <u>Conventions Used</u>

1.1 What is New in this Release for OFS REG REP OSFI

This section lists new features and changes in OFS REG REP OSFI release v8.1.1.0.0.

1.1.1 New Features for 8.1.1.0.0

The new features introduced in this release are as follows:

- Conversion of existing Run Rule Framework to the new OFSAAI Process Modelling Framework feature. For more information, see the <u>Executing Run through Process Modelling Framework in OFS</u> <u>REG REP OSFI.</u>
- New OSFI Menu to access Process Execution Summary, Metadata Browser, and Reports (Report Summary). For more information, see the <u>Process Execution Summary</u>, <u>Metadata Browser</u>, and <u>Viewing Report Summary</u>.
- Enabling the Reporting Flag for a run through the new Process Execution Summary module. For more information see the <u>Reporting Flag for Run through Process Execution Summary</u>
- New Drill down User Interface. For more information see the <u>Report Verification Drill down from</u> <u>AgileREPORTER to OFSAA Results Area</u>

1.1.1.1 Deprecated Features

There are no deprecated features in this manual.

1.1.1.2 Desupported Features

The desupported feature for OFS REG REP OSFI Release v8.1.1.0.0 is the Run Execution and Run Management features through the Run Rule Framework.

1.2 Scope of the Guide

The objective of this user guide is to provide comprehensive working knowledge on Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada (OFS REG REP OSFI), Release 8.1.1.0.0. This user guide is intended to help you understand the key features and functionalities of Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada release 8.1.1.0.0 and details the process flow and methodologies used.

1.3 Intended Audience

Welcome to Release 8.1.1.0.0 of the Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada (OFS REG REP OSFI) User Guide.

This guide is intended for:

- Regulatory Reporting Analyst responsible to verify and submit the results, maintain the dimensional values across multiple reporting requirements, and preserve the results area structure of the Oracle Financial Services Data Foundation.
- Data Analyst who clean, validate, and import data into the Oracle Financial Services Download Specification format, and ensure that data is populated in the relevant tables as per the specifications and executions required for regulatory reporting.
- System Administrator (SA) instrumental in making the application secure and operational and configures the user roles providing necessary access to users.

1.4 Access to Oracle Support

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

1.5 Related Information Sources

In addition to this user guide, you can see the following documents in the <u>OHC</u> documentation library:

- Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada (OFS REG REP OSFI) Installation Manual Release 8.1.1.0.0
- Oracle Financial Services Data Foundation User Guide Release 8.1.1.0.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.1.1.0.0
- Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.1.1.0.0

1.6 How this guide is Organized

The OFS REG REP OSFI User Guide includes the following topics:

- <u>Chapter 2: Introduction</u>
- Chapter 3: Getting Started
- <u>Chapter 4: Regulatory Reporting Solution Data Flow</u>

- <u>Chapter 5: OFSAA Features</u>
- <u>Chapter 6: Executing Run through Process Modelling Framework in OFS REG REP OSFI</u>
- <u>Chapter 7: Regulatory Data Extract</u>
- Chapter 8: Report Statistics
- Chapter 9: Report Submission
- <u>Chapter 10: Maintenance</u>
- <u>Chapter 11: Troubleshooting Guidelines</u>

1.7 Conventions Used

The following table lists the conventions used in this guide.

Table 1: Conventions Used in this Guide

Conventions	Description
References to sections or chapters in the manual are indicated in <i>Italics</i> .	
Screen names are indicated in the following manner: Introduction screen	
Options and buttons are indicated in Bold .	
Code related text is indicated in Monospace.	
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
RHEL	Red Hat Enterprise Linux
Atomic Schema	Database schema where the application data model is uploaded
Config Schema	Database schema which contains setup related configurations and metadata
OFS REG REP OSFI	Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada

2 Introduction

This chapter provides an understanding of the OFS REG REP OSFI application and its scope.

Topics:

- Overview
- OFSAA Regulatory Reporting Architecture
- <u>Scope</u>

2.1 Overview

The Office of the Superintendent of Financial Institutions (OSFI) is an independent agency of the Government of Canada, established in 1987 to contribute to the safety and soundness of the Canadian financial system. OSFI supervises and regulates federally registered banks and insurers, trust and loan companies, as well as private pension plans subject to federal oversight. It provides a regulatory framework of guidance and rules that meets or exceeds international minimums for financial institutions.

In addition to issuing guidance, OSFI provides input into the development of federal legislation and regulations affecting federally regulated financial institutions (FRFIs), and comments on accounting, auditing, and actuarial standards development, and determines how to incorporate them into our regulatory framework. It regulates by developing rules, interpreting legislation and regulations, and providing regulatory approvals types of transactions. It also contributes to new accounting, auditing, and actuarial standards.

OSFI supervises by analyzing financial and economic trends to identify emerging issues that could adversely affect institutions. It assesses an institution's financial condition, material risks, and the quality of its governance, risk management, and compliance. It reports to Parliament through the Minister of Finance on various formal and informal processes that are used to ensure the effective execution of OSFI's mandate. For example, the Financial Institutions Supervisory Committee, whose members are OSFI, the Department of Finance, the Bank of Canada, the Canada Deposit Insurance Corporation, and the Financial Consumer Agency of Canada, meets at least quarterly to share information on matters relating to the supervision of federally regulated financial institutions.

OSFI also works with the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC), which is responsible for ensuring compliance with Canada's Proceeds of Crime (money laundering) and Terrorist Financing Act.

2.2 OFSAA Regulatory Reporting Architecture

This interface connects the Oracle FSDF to Lombard Risk. As one can see in the Architecture (Figure 1), Data flows from OFSAA to Lombard Risk.

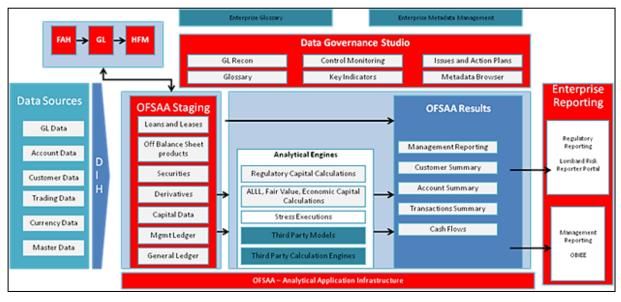


Figure 1: Regulatory Reporting Solution Architecture

OFSDF is an analytical data warehouse platform for the Financial Services industry. OFSDF combines an industry data model for Financial Services along with a set of management and infrastructure tools that allows Financial Services Institutions to develop, deploy, and operate analytical solutions spanning key functional areas in Financial Services, including:

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

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

AgileREPORTER is a form and workflow tool that enables both creation and submission of regulatory returns. AgileREPORTER addresses the financial reporting requirements of both domestic and international banks and financial institutions by automating compliance with mandated reports to central banks, regulatory agencies. AgileREPORTER works easily with multiple sources of information as it standardizes data elements and automates regulatory report production in prescribed templates with the associated workflow for automatic submission. It is a reliable and efficient infrastructure to compile, generate, and submit regulatory reports. It collects data from the universe (not just OFSAA Results). It provides automated repeated manual adjustments, variance analysis, and validation checks.

The solution provides a prebuilt interface or integration between FSDF and AgileREPORTER. With this integration, end-user can automate end to end reporting processes covering data preparation to the last mile of reporting.

2.3 Scope

Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada (OFS REG REP OSFI) covers the following regulatory reports for specified release as mentioned in the table:

Table 2: Scope of Regulatory Reports and Schedules

Report Name	Schedule Name or Description	Released Version
E2	Mortgage Loans (E2)	8.1.1
N3	Loans in Arrears (N3)	8.1.1

3 Getting Started

This chapter provides an understanding of the prerequisites, general and data preparation assumptions, and logging into the application.

Topics:

- Prerequisites
- <u>Assumptions</u>
- <u>Accessing the OFSDF Interface or OSFI Interface</u>
- Organization of the Interface for User Roles
- Metadata Browser

OFSDF interface with OFS REG REP OSFI allows you to perform the following activities:

- Manage Data Loading and Transformation from various source systems to staging, processing, and results.
- Manage relevant OFSAA metadata for regulatory reporting purposes. This includes creating, modifying, and viewing the metadata used in reporting.
- View the report metadata for mapping.
- Drill down from AgileREPORTER to OFSAA results area.

3.1 Prerequisites

For detailed prerequisites and instructions on installing this Interim Release, see the Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes, Canada (OFS REG REP OSFI) Installation Guide Release 8.1.1.0.0.

3.2 Assumptions

OFSDF interface with OFS REG REP OSFI is a reporting application and it does not perform any risk or stress calculations. The assumptions for the application are:

- Textual and other related portions of reports like personal details, contact details, Yes or No choices must be updated on Report Portal directly and FSDF does not have a placeholder for it.
- Data provided is post reconciliation to ensure that the accuracy of data being reported (nonprescribed by regulators) are performed in OFSAA using various components – General Ledger (GL) reconciliation.
- Validity checks such as edit checks, cross-validation checks, and so on prescribed by the regulator are performed within the AgileREPORTER.
- All monetary amounts are expected to be positive in number, except valuation outputs which can be positive or negative. Rules are constructed assuming the negative sign of valuation amounts wherever applicable.
- The application populates a few specific dimension tables, known as seeded or sample tables as part of the installation script. Since they are used in the metadata, changes in data values have an impact on overall functioning.

- For data provided as of date, such as the last day of the quarter of the reporting year: Quarterly and Year to Date (YTD) report for the given date display the same value for those measures which are of as of the date in nature. For example, the Annual and Quarterly Balance Sheet and BASEL report generated as of 31-MAR show the same values for all measures such as Account Balance.
- All percentage data are expected in decimal format meaning 9% must be provided as 9 and not 0.09.
- Account Balances such as End of Period Balances are expected to be provided as Net of (without) Unearned Income.

3.3 Accessing the OFSDF Interface or OSFI Interface

After the application is installed and configured, to access the OFSDF Interface with Lombard Risk for OSFI application you must log in to the OFSAAI environment using the OFSAAI login page.

To access the application, follow these steps:

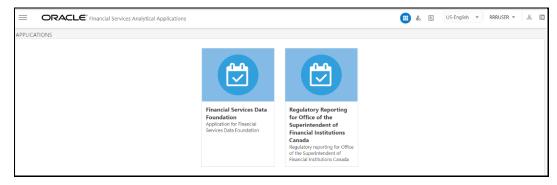
1. Enter the OFSAAI URL in your browser. The OFSAAI login page is displayed.

ORACLE [*] Financial Services Analytical Applications			⊠ <u>About</u>
-			
Li di la constante di la consta	anguage	US-English 🗸	
U	Jser ID		
Pi	Password		
		Login	
	on 8.1.0.0.0 right © 1993, :	2020, Oracle and/or its affiliates. All rights reserved.	

Figure 2: OFSAAI Log In

- 2. Select the desired language from the Language drop-down list.
- 3. Enter your User ID and Password. When you log into OFSAAI, the landing page is displayed.

Figure 3: OFSAAI Applications Page



4. Select the **Financial Services Data Foundation** option to navigate to the **FSDF** application or select the **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada** to navigate to the **OFS REG REP OSFI** application.

3.4 Organization of Interface for User Roles

This section explains the various features used by an analyst. It describes the organization of the user interface and provides step-by-step instructions for navigating through the application to carry out these activities.

To access the Process Execution Summary, the following roles must be assigned to the user:

- 1. Modify Run Parameters
- 2. Approve Reporting Flag
- **3.** Override Reporting Flag
- 4. Request Reporting Flag
- 5. Run Reporting Flag
- 6. View Run Details

Data Analysts are expected to perform the following activities:

- 1. Executing Batch to Refresh Derived Entities
- 2. Drill down from AgileREPORTER to OFSDF

Regulatory Report Analysts are expected to perform the following activities:

- 1. Drill down from AgileREPORTER to OFSDF
- 2. Using Metadata Browser to check schedule-wise metadata
- 3. Using Metadata Browser to check metadata usage across schedules

Topics:

- Process Execution Summary
- Marking Run as Final
- Reporting Flag for Run through Process Execution Summary
- Executing Batch to Resave Derived Entities
- Logging to AgileREPORTER to Retrieve the Returns
- <u>Report Verification Drill down from AgileREPORTER to OFSAA Results Area</u>

3.4.1 **Process Execution Summary**

This section provides information on the Runs that apply to OSFI. The Process Execution Summary is launched once the Runs are executed from the Processing Modelling Framework. The following figure displays the Process Execution Summary with the data that is retrieved from the Process Modeler.

3.4.2 Marking Run as Final

Various applications provide the data for regulatory reporting. You must mark specific executions for regulatory reporting as the final run.

- 1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for Office** of Superintendent of Financial Institutes Canada, select Process Modelling Framework and then select Process Execution Summary.
- 2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.
- **3.** After the Run execution, the Process Execution Summary is generated in the list format as illustrated in the following steps. The summary page displays the **Process Names** for which the **Run Parameters** are generated.
- **4.** Scroll towards the right and click **View** in the **Process Name** row.

You can view the detailed definition of a Run in a read-only mode. The **Process Execution Details** page displays the execution details for the selected Execution Key with the color band displaying the status of each Execution Key.

The execution keys and the corresponding execution details are as follows:

- **Process Description**: The Reconciliation Framework Run appears as the process description when the user executes the GL Reconciliation Run.
- **MIS Date**: The extraction date is displayed in this field.
- Start Time: It displays the Execution Date and the Execution Time when the Execution Run starts.
- **End Time**: It displays the End Execution Date and Execution Time.
- Process Execution Key: Unique identifier assigned to each Process Execution.
- Approval Status: It displays the Approval status of the Execution as Completed, Failed, or Ongoing.
- **Process Monitor**: This helps to show the run definition as defined in the process modeling framework. There are 4 icons in the Process Monitor as follows:
 - **PMF Launch**: Click **View** to view the Process flow associated with the selected run.
 - Request Report Flag: To request for a Reporting Run, select an Execution ID in the Process
 Execution Summary page and click the Request Report Flag

 A dialog box will appear
 for you to input your comments. Click Submit and the status of this Run is displayed in the
 Reporting 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.
 - Approve Report Flag: After submitting the Reporting Run in the earlier section, the

Approve Report Flag is enabled. When you click the Approve Report Flag, a dialog box is displayed with User Comments and Approver Comments. The Approver can update the comments in the Approver Comments field and then click Approve or Reject.

Override Report Flag: Any reporting execution can be overwritten with another execution.
 Select a successfully triggered batch on the Process Execution Summary page. The

Override Report Flag is enabled if the execution is already marked as a Reporting Flag. You can override the execution by updating your comments. This must be approved by the approver and the procedure is similar to the procedure detailed in the Approve Report Flag for a Run section.

3.4.3 Reporting Flag for Run through Process Execution Summary

To request, approve, and override a flag for the process execution, perform the following steps:

- After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutes Canada, select Process Modelling Framework and then select Process Execution Summary.
- 2. Scroll towards the right and click **Filter**, select the **Run Pipeline** from the available pipeline selection list. Click **OK**.
- **3.** Scroll towards the right and click **View** in the **Process Name** row.
- **4.** Select **Request Report Flag** to request a report flag for the selected run execution.
- **5.** Enter information in the **Comments** field and click **Submit**. The request report flag for a run is saved successfully.

3.4.3.1 Approve Report Flag for a Run

To approve the report flag, perform the following steps:

- 1. Navigate to the **Process Execution Summary** page and select the process name for which the report flag must be approved.
- **2.** Click **Approve** to approve the request.
- 3. Enter the information in the **Approve Request Flag** page.
- 4. Click Approve to approve the requested report flag.

3.4.3.2 Override Report Flag for a Run

To override the report flag for a successful run, perform the following steps:

- 1. Navigate to the **Process Execution Summary** page and select the process name for which the report flag must be overridden.
- 2. Click **Override Report Flag** to override the report flag.
- 3. Enter the information in the **Override Report Flag** window.
- 4. Click **Override** to override the requested report flag.
- **5.** Click **Approve Report Flag** to approve the override report flag request.
- 6. Enter the information in the **Approver Comments** field and click **Approve** and the report flag is overridden successfully.

3.4.4 Executing Batch to Resave Derived Entities

To execute the batch to refresh derived entities, perform the following steps:

 After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutes Canada, select Operations, and then select Batch Execution.

For example: Select the batch **<INFODOM>_LIQUIDITY_REPORTS_ACC_RESAVEDE** to resave all the DEs used in OSFI.

For more details on the list of Batches for resaving Derived Entities, see the OSFI RUN CHART.

=		ry Reporting for Office of the Superintendent of Financi	cial Institutions Canada 🔠 🐁 🖪 US-English	▼ RRRUSER ▼ &
Batc	n Execution			0
∼Bi	itch Mode			
	Mode	e ●Run ○ Restart ○ Rerun		
~ 54	arch			Q. Search "D Reset
- 54		FSDFINFO_	Batch Description Like	
	Module	· · · · · · · · · · · · · · · · · · ·	Last Modification Date Between 🕮 And	m
∨Bi	itch Details			
	Batch ID A		Batch Description	
	FSDFINFO_ALM		Data Quality batch for ALM tables	
	FSDFINFO_CAMPAIGN		Data Quality batch for CAMPAIGN tables	
	FSDFINFO_COLLATERAL		Data Quality batch for Collateral tables	
	FSDFINFO_COLLECTION_AND_RECOVE	RY	Data Quality batch for Collection and Recovery tables	
	FSDFINFO_CRM		Data Quality batch for CRM tables	
	FSDFINFO_CUSTOMER		Data Quality batch for Customer tables	
	FSDFINFO_DATA_FOUNDATION_SCD		Data Foudation SCD for Loading Dimension Tables	
	FSDFINFO_DATA_FOUNDATION_SCD_M	/ILS	Data Foundation SCD for Multi Language Support Dimensions	
	FSDFINFO_DIM_ACCOUNT_SCD		SCD for DIM_ACCOUNT	
	FSDFINFO_EXPOSURE		Data Quality batch for EXPOSURE tables	
	FSDFINFO_FTS_TO_FCT_PAYMENTS_SU	MM	Deprecated. Use RUN - Data Foundation Execution Run	
	FSDFINFO_GL_AND_ACCOUNTING		Data Quality batch for GL_AND_ACCOUNTING group	
	FSDFINFO_LIQUIDITY_REPORTS_ACC_R	IEFRESH	This Batch refreshes the derived entities for Liquidity Reports Based on Account Information	
	FSDFINFO_LIQUIDITY_REPORTS_ACC_R	IESAVEDE	This Batch Resaves Derived Entity for Creating Liquidity Reports Based on Account Informat	ion
	FSDFINFO_LRM		Data Quality batch for LRM tables	
Pag	e 1 of 5 (1-15 of 70 items) K < >	к		Records Per Page 15

Figure 4: Batch Execution Page

2. Monitor the status of the batch using the **Batch Monitor (**Navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada,** select **Operations,** and then select **Batch Monitor**).

Figure 5: Batch Monitor Page

ORACLE [*] Regulatory Reporting for Office of the Superintendent of Financial Institutions	Canada	💼 💩 🗎	US-English 🔻	RRRUSER ¥	£ 0		
Batch Monitor					Ø		
				Q. Search 'D Re:	set		
Batch ID Like FSDFINFO	Batch Description Like						
Module	Status		~				
Start Date	End Date	—					
~ Batch Details							
Batch ID 🔺		Batch Description					
FSDFINFO_DATA_FOUNDATION_SCD	Data Foudation SCD for Loading Dimension Table	es					
FSDFINFO_DIM_ACCOUNT_SCD	SCD for DIM_ACCOUNT						
□ FSDFINFO_LIQUIDITY_REPORTS_ACC_REFRESH	This Batch refreshes the derived entities for Liquidity Reports Based on Account Information						
FSDFINFO_LIQUIDITY_REPORTS_ACC_RESAVEDE	This Batch Resaves Derived Entity for Creating Liq	quidity Reports Based on Accou	int Information				
FSDFINFO_OSFI_SCD	OSFI SCD for Loading Dimension Tables						
FSDFINFO_POP_DATES_DIM	Populate DIM_DATES						
□ FSDFINFO_POP_EXCHANGE_RATES	Populate fsi_exchange_rates with the exchange ra		cy pair		- 12		
FSDFINFO_REFRESH_BASE_DE_OF_REG_T2T	Batch for Refreshing the Base Derived Entities of I	Reg T2T					
□ FSDFINFO_REG_RUNEXE_RESAVE	Task for Resaving the REG REP Run Execution View	w					
□ FSDFINFO_REG_RUN_T2T_SEQUENCE_RESET	Reset Regulatory T2T Sequences						
FSDFINFO_RESAVE_BASE_DE_OF_REG_T2T	Batch for Resaving the Base Derived Entities of Re	eg T2T					
Page 1 of 1 (1-11 of 11 items) K < > ≫				Records Per Page	15		
vBatch Run Details 🛛 🚱 Start Monitoring 🖉 Stop Monitoring 🖱 Reset							
Information Date 🗸	Monitor Refresh Rate (seconds)	5					
Batch Run ID 🗸							

- **3.** Navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada, select Operations, and then select Batch Execution**.
- 4. Select the batch <<INFODOM>>_LIQUIDITY_REPORTS_ACC_RESAVEDE to resave all the Views used in OSFI.

Figure 6: Batch Resave Page

=	ORACLE' Regulatory Reporting for Office of the Superintendent of Financia	al Institutions Canada 🌐 👗 🗓 US-English 🔻 RRRUSER 🔻 👶 🖸
Batc	h Execution	0
∨ Ba	atch Mode	
	Mode 📀 Run 🔿 Restart 🔿 Rerun	
	earch	Q. Search D Reset
~ 26		
	Batch ID Like FSDFINFO_	Batch Description Like
	Module	Last Modification Date Between
∨Ba	atch Details 🖉 Schedule Batch	
	Batch ID 🔺	Batch Description
	FSDFINFO_ALM	Data Quality batch for ALM tables
	FSDFINFO_CAMPAIGN	Data Quality batch for CAMPAIGN tables
	FSDFINFO_COLLATERAL	Data Quality batch for Collateral tables
	FSDFINFO_COLLECTION_AND_RECOVERY	Data Quality batch for Collection and Recovery tables
	FSDFINFO_CRM	Data Quality batch for CRM tables
	FSDFINFO_CUSTOMER	Data Quality batch for Customer tables
	FSDFINFO_DATA_FOUNDATION_SCD	Data Foudation SCD for Loading Dimension Tables
	FSDFINFO_DATA_FOUNDATION_SCD_MLS	Data Foundation SCD for Multi Language Support Dimensions
	FSDFINFO_DIM_ACCOUNT_SCD	SCD for DIM_ACCOUNT
	FSDFINFO_EXPOSURE	Data Quality batch for EXPOSURE tables
	FSDFINFO_FTS_TO_FCT_PAYMENTS_SUMM	Deprecated. Use RUN - Data Foundation Execution Run
	FSDFINFO_GL_AND_ACCOUNTING	Data Quality batch for GL_AND_ACCOUNTING group
	FSDFINFO_LIQUIDITY_REPORTS_ACC_REFRESH	This Batch refreshes the derived entities for Liquidity Reports Based on Account Information
	FSDFINFO_LIQUIDITY_REPORTS_ACC_RESAVEDE	This Batch Resaves Derived Entity for Creating Liquidity Reports Based on Account Information
	FSDFINFO_LRM	Data Quality batch for LRM tables
Pag	pe 1 of 5 (1-15 of 70 items) K < > ≫	Records Per Page 15

5. Monitor the status of the batch using the **Batch Monitor** (Navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada,** select **Operations,** and then select **Batch Monitor**).

3.4.5 Logging to AgileREPORTER to Retrieve the Returns

The Retrieve Return functionality in AgileREPORTER fetches data from OFSAA derived entities and embeds them on AgileREPORTER templates. This runs the decision table process in Lombard Risk. You can view the relevant OFSAA data on various schedules of the AgileREPORTER using this functionality.

Figure 7: Retrieve Returns Page

AgileREPORTEF	Dashboard						Job Manager	565	XBRL Checker	→ hi rpadmin	\$	0
		Show Deleted	d Returns D	elete Return Log	Create New		Import adjustments	✓ Submit	Export	Retrieve	Return	
Regulator :	RETURNS \$	VERSION \$	REFERENCE DATE	JOB STATUS	WORKFLOW CLVXA	8	APPROVAL	EDITIONS	SUBMISSION FILE	ANALY	/SIS	,
Office of Superintendent of Financi: V	E2 🗗	1	12/31/2015	0			Not Approved (0/1)	Manage Editions		Variance	Trends	(
Entity	E2 🕞	1	01/31/2016	0	😳 🖪 🗌 🗌 🗌		Not Approved (0/1)	Manage Editions		Variance	Trends	0
WFBNA V	E2 🖵	1	02/29/2016	Retrieve Retur	n ×		Not Approved (0/1)	L Manage Editions		Variance	Trends	0
form	E2 🖵	1	03/31/2016	Entity			Not Approved (0/1)	L Manage Editions		Variance	Trends	0
All 🗸	<u>N3</u>	1	12/31/2015	A25 Consolidation : Co	onsolidated		Not Approved (0/1)	L Manage Editions		Variance	Trends	0
vailable date	<u>N3</u>	1	01/31/2016	Reference Date			Not Approved (0/1)	L Manage Editions		Variance	Trends	0
All 🗸	<u>N3</u>	1	02/29/2016	07/23/2015			Not Approved (0/1)	L Manage Editions		Variance	Trends	0
	<u>N3</u>	1	03/31/2016	Form N3 v1]		Not Approved (0/1)	L Manage Editions		Variance	Trends	0
	4			Log level			100 🗸					Þ
				Normal	~							
				Initialise to z	eros							
				ок	Cancel							

3.4.6 Report Verification – Drill down from AgileREPORTER to OFSAA Results Area

The Drill down functionality enables you to view the accounts included in the aggregation. Following these steps to Drill down from AgileREPORTER to OFSAA:

1. Log in to the AgileREPORTER.

Figure 8: AgileREPORTER Login Page

Agil	EREPORTER by vermeg
Highly scalabl	
other business	s units and geographies as business requirements evolve
	Sign in
	Username
	Password
	Sign in

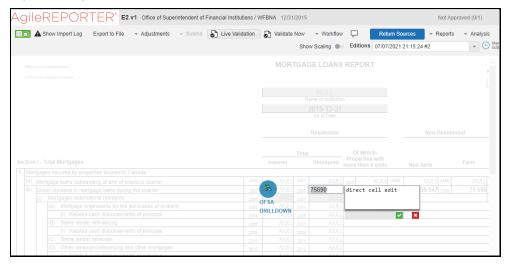
2. You can view the list of reports on the main page. Click any report name in the Returns column, for example, **E2**.

Figure 9: AgileREPORTER Main Page

AgileREPORTEF	Dashboard					Job Manag	jer <u>565</u>	XBRL Checker	👻 hi rpadmin	*	0
		Show Deleted	Returns Del	lete Return Log	Create New	Import adjustments	+ Submit	Export Export	Retrieve	Return	
Regulator : Office of Superintendent of Financi V	RETURNS \$	VERSION \$	REFERENCE DATE \$	JOB STATUS	WORKFLOW CLVXA:	APPROVAL S	EDITIONS	SUBMISSION FILE	ANAL	YSIS	М
Chice of Superintendent of Finance +	E2 🕞	1	12/31/2015	R ()	😲 R 🗌 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Variance	Trends	01
Entity	E2 🖵	1	01/31/2016	B ()	😋 R 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions		Variance	Trends	0;
WFBNA 🗸	E2 🖵	1	02/29/2016	R ()	😲 R 🗌 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Variance	Trends	01
Form	E2 🕞	1	03/31/2016	® ()	😳 R 🗌 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions		Variance	Trends	07
E2 v1 🗸	4				14 <4 1 PS	⊨ 100 ❤					+
Available date											

- 3. Navigate to the corresponding cell on the relevant page.
- 4. Click any cell to Drill down. Figure 10 displays Drill down for the cell. The **OFSAA icon** is displayed.

Figure 10: AgileREPORTER Drill down (OFSAA Icon)



 Click the OFSAA icon, to view how this cell was populated (provides information about the amounts reported in a cell) from OFSAA results. You are redirected to the OFSAA Drill down page.

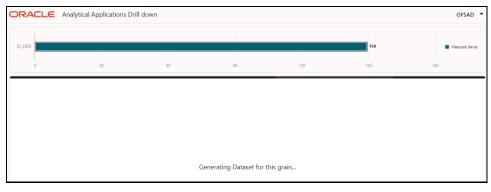


Figure 11: AgileREPORTER Drill down Page

6. Click the **Column Selector** button on the header of the second table.

Figure 12: Drill down Attribute Selector

ORACLE	Analytical App	Column Selector				EBAUSER 🔻
CRSAR015C030		Available Attributes		Selected Attributes		ion Amount In BP ed Amount
0 6.33M Provis	ion Amount lı	 Dataset Basel Approach Code Basel Asset Class Code 		Fact Regulatory Capital Account Summary Regulatory Asset Class Dimension Provision Amount In BP	7M Column Selecto	r Export 🔻
Fact Reg	ulatory Capital	Basel Product Type Code Level 1 Basel Risk Type Level 0 Calendar Date		Calendar Date Calendar Date Calendar Date Org Structure Entity Code	g Structure Ent	Run Descript
Account Or Contr	Calendar	Created By	_	Run Description	egal Entity Code	Run Execution
GUA1000	30 Septembe	Created Date	>	🕨 🛅 Basel Asset Class Code	5	1591021387390
GUA1001	30 Septembe	📔 Day Name	<	🕨 🛅 EBA Standard Party Type	.5	1591021387390
GUA1002	30 Septembe	🖺 Day Of Month		RCAS Qualified CCP Flag	5	1591021387390
GUA1003	30 Septembe	🖺 Day Of Week		Basel Product Type Code Level 1	5	1591021387390
IN1000	30 Septembe	Day Of Year		Basel Risk Type Level 0	5	1591021387390
IN1001	30 Septembe	End Date		FRCAS Risk Weight Method Code	.5	1591021387390
IN1002	30 Septembe	Extraction Date		Trading Book Indicator	5	1591021387390
IN1003	30 Septembe	Fiscal Month End Date		 Basel Approach Code RCAS BASEL Rating 	5	1591021387390
IN1004	30 Septembe	Fiscal Month Start Date		RCAS BASEL Rating Reg Asset Class Code	5	1591021387390
IN1005	30 Septembe	Search		 HIR-Total Asset Class 	.5	1591021387390
IN1006	30 Septembe				5	1591021387390
111007	70 0			Apply	lose	1501001707700

NOTE Select the required Data Source, from the Available Attributes list and click **Move**. You can press the **Ctrl** key and click **Move** for multiple selections to map all the listed Data Sources to the application.

Select the required Data Source, from the Selected Attributes list and click **Remove** I to remove the mapped Data Source from the application.

7. Expand Dataset and select the Attribute to be shown in the Drill down. Click Apply.

Figure 13: Drill down Columns

CRSAR015C030							6M	Provisio	n Amount In BP
0	1M	21	ч	3M	4M	5M	6M	■ Adjuste 7M	u Amount
5.33M Provisi	on Amount In BP							Column Selector	Export 🔺
Fact Regi	ilatory Capital Account	t Summary	Regulatory Asset		Provision Amount In B	р	Calendar Date	Org Structure Ent	Excel
Account Or Contr	Calendar Date	Run Execution Id	Regulatory Asset	Provision Amoun	Other Valuation	Valuation Adjust	Calendar Date	Legal Entity Code	RI CSV
GUA1000	30 September 2016	1591021387390	3	7922.907	2736.25	21890	30 September 2016	A25	1591021387390
GUA1001	30 September 2016	1591021387390	3	4274.589	4022.38	32179	30 September 2016	A25	159102138739
GOAIDOT	so september 2010	1011021001010		127 1307		Dia III I	bo bepternoer zoro	1 46.0	101102100101

3.5 Metadata Browser

This section helps you to navigate through the Metadata Browser and guides you in tracing the source of the metadata. The Metadata Browser function allows you to view and analyze all aspects of the metadata used in the OFSAAI. It provides extensive browsing capabilities of metadata, helps in tracking the impact of changes to metadata, and trace through to the source of the Originating Data.

Metadata Browser (Object and Application View) provides a common repository of metadata objects created in OFSAAI and applications 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, thus enabling traceability. It also

allows you to view the Data Flow and the workflow of the application and understand the usage of objects within the application.

The new visualization of Metadata Browser (MDB) supports the Application View and Object view. In the Application view, you can browse through the metadata created using the applications hosted in OFSAAI. In the Object view, you can view the metadata created in OFSAAI.

To access the Metadata Browser (Object and Application View), your role must be mapped to the SCR_MDB Function.

Analysts review the metadata used for a particular report schedule to verify the data. Data verification may require looking for metadata used in a given schedule or it can be scheduled in which particular metadata is used. Data Analysts and Reporting Analysts perform the report verification. Metadata refers to Business Measures, Hierarchies, Datasets, Derived Entities used for a given schedule.

3.5.1 Reporting Metadata

To use MDB for schedule-wise metadata, and to use MDB for metadata wise schedule, identify the metadata used, perform the following steps:

 You can verify the data for related data elements in results using this information. Navigate to Catalog of Objects, select OFSAA Metamodel, select Reporting Metadata, and then select Reports. The MDB Reporting Metadata Screen is displayed.

ORACLE Metadata Browser OFSAD Home - Catalog of objects Ē OFSAA Metamodel Catalog of objects Q II\ Data Foundation & Dashboard Q Search ese are objects with ed for defining and 晘 E2S3 9 day(s) ago by SYSADMN Business Metadata E2S3 | Used in 1 object(s) | Dependent on 0 object(s) & Views se are unique set of iness terms for Outstanding Mortgage Loans - Summary by Type, Arrears, and Allow ce for Expected Credit Losses naging the e... E2S2 9 day(s) ago by SYSADMN E2S2 | Used in 1 object(s) | Dependent on 0 object(s) Mortgage Loans Report - Summary by Amount rocess Metadata ese are collections rules, ocesses which facilitate t.. E2S1M 9 day(s) ago by SYSADMN ed in 1 object(s) Dependent on 0 object(s E2S1M | Us Memo Item E2S1 9 day(s) ago by SYSADMN E2S1 | Used in 1 object(s) | Dependent on 0 object(s) Total Mortgaces E2MSI 9 day(s) ago by SYSADMN E2MSI | Used in 1 object(s) | Dependent on 0 object(s) tial Mortgage Origination by Property Type (Canada

Figure 14: MDB - Reporting Metadata Page

2. Click the object view E2S3 to view the list of schedules. The **Reporting Metadata Schedule View** Page is displayed.

ORACLE Metadata Browser				OFSAD 🔻
1 Home - Catalog of objects				
	<u>Use</u> d In		Applications	
	1	1	No items to display.	
	Objects C	bject Types		
E253				
Outstanding Mortgage Loans - Summary by Type, Arrears, and Allowance for Expected Credit Losses	Depends On			
	0	0		
	Objects C	bject Types		
SYSADMN on 12 Jul 21 12:07 AM Created				
SYSADMN on 12 Jul 21 12:07 AM Last Updated	Details			
De la				

Figure 15: MDB - Reporting Metadata - Schedule View

You can view the following information in the **Schedule Details** Page:

- **Depends On**: This section displays the metadata used in a given schedule.
- **Used In**: This section displays the Reports in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.
- **3.** Click **Details** to view the dependency and usage information such as the **Object Name** and the **Object Type**.

Figure 16: MDB - Reporting Metadata - Schedule View 1

E2S3 - Dependency and Usage	×
Used in 1 Dashboard	
Object Name	Dbject Type
E2 D	Dashboard

4. From the Schedule View Page, click the Dependency tab to view the Report Tree Structure.



Figure 17: MDB - Reporting Metadata Tree Structure Page

Starting from common metadata used across the application, you may want to know the list of reports or derived entities this metadata has used. Let us take an example of a measure. To identify how value is computed, perform the following steps to trace it back to the metadata.

3.5.2 Business Metadata

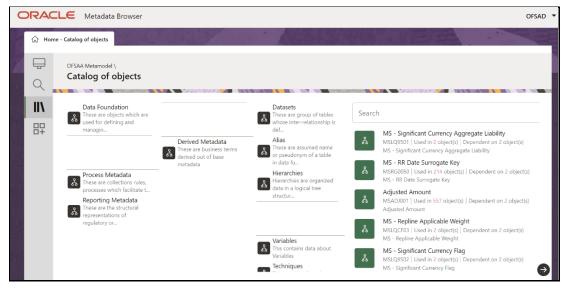
This section provides information on the Business Metadata objects which include Base Metadata and Derived Metadata.

3.5.2.1 Base Metadata

The following are the steps to perform to view the Base Metadata details. For example, Measures.

 To view the measures, navigate to Catalog of Objects, select OFSAA Metamodel, select Business Metadata, select Base Metadata, and then select Measures. The MDB Business Metadata Page is displayed.

Figure 18: MDB - Business Metadata - Measure View Page



2. Click the **Measure** that you wish to view. The **MDB Business Metadata Measure Details** Page is displayed.

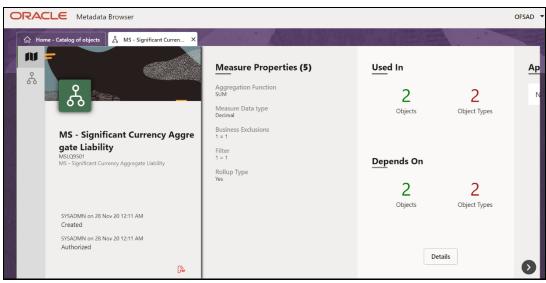


Figure 19: MDB - Business Metadata Measure Details Page

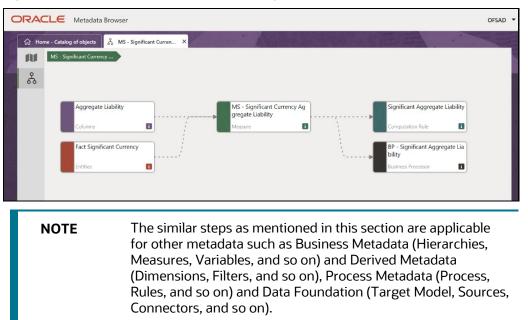
You can view the following information on this page:

- Measure Properties: It provides information on the properties of Business measures. For example, aggregation function, Measure Data Type, Business Exclusions, Filter, and Rollup Type.
- **It Depends On**: This section displays all the object names and their types, such as Entities, Columns, and so on.
- Used In: This section displays the Objects in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.
- 3. Click **Details** to view the measure dependency and usage information.

Figure 20: Measure Dependency and Usage Details Page

MS - Significant Currency Aggregate Liability - Dependency and Usage				
Used in 1 Business Processor, 1 Computat	tion Rule	Depends on 1 Entities, 1 Columns		
Object Name	Object Type	Object Name	Object Type ↑↓	
BP - Significant Aggregate Liability	Business Processor	Fact Significant Currency	Entities	
Significant Aggregate Liability	Computation Rule	Aggregate Liability	Columns	

4. From the **Measure Details** page, click the **Dependency** tab to view the Measure Tree Structure.





3.5.2.2 Derived Metadata

The following are the steps to perform to view the Derived Metadata details. For example, Derived Entities.

 To view the schedule-wise derived entities, navigate to Catalog of Objects, select OFSAA Metamodel, select Business Metadata, select Derived Metadata, and then select Derived Entities.

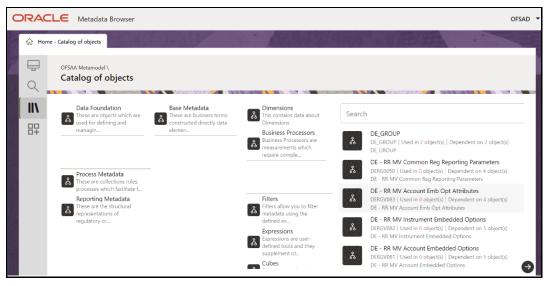


Figure 22: MDB - Business Metadata – Derived Entity Page

2. Click the **Derived Entity** that you wish to view. The **Derived Entity Details** page is displayed.

ORACLE Metadata Browser				OFSAD -
Home - Catalog of objects				
₩ & &	Derived Entity Properties (4) Aggregate Flag No Materialized View No	Used In 2 Objects	2 Object Types	<mark>Ар</mark> N
DE_GROUP DE_GROUP DE_GROUP	Application Name AAI_CONFIG_APP Source Name AAI_CONFIG_SRC	Depends On		
sysadmn on 05 Jul 21 07:07 PM Created		O Objects	O Object Types	
sysadmi on 05 Jul 21 07:07 PM Authorized		Deta	ils	0

Figure 23: MDB - Business Metadata Derived Entity Details Page

You can view the following information on this page:

- **Derived Entity Properties**: It provides information on properties of derived entities, such as Source Type, Aggregate Flag, and Materialized View.
- **It Depends On**: This section displays all the object names and their types, such as Dataset, Hierarchy, and so on.
- Used In: This section displays the Objects in which this schedule is used.
- **Applications**: This section displays the applications in which this schedule is used.
- 3. Click **Details** to view the derived entity dependency and usage information.

Figure 24: Derived Entity Dependency and Usage Page

DE_GROUP - Dependency and Usage	×
Used in 1 Hierarchy, 1 Dataset	
Object Name 1↓	Object Type
User Group Hierarchy	Hierarchy
DE_GROUP DS	Dataset

4. From the **Derived Entity Details** Page, click the **Dependency** tab to view the Derived Entity Tree Structure.

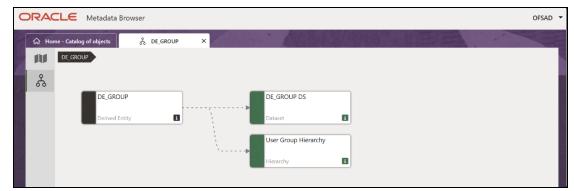


Figure 25: Business Metadata - Derived Entity Tree Structure Page

For more information about the Metadata and its usage, see the OFSAA Metadata Browser User Guide.

4 Regulatory Reporting Solution Data Flow

This chapter provides an understanding of the data flow. It explains what happens within data flow and how various processing aspects are integrated with the overall data flow.

Topics:

- Data Preparation
- Overview of OFS AGILE RP User Interface
- <u>Adjustment Feature for Template-based Reports</u>
- Mapping of Results to Line Items in Reporting
- AgileREPORTER: Submission

4.1 Data Preparation

This section explains the input data preparation from OFSAA.

Topics:

- <u>Assumptions for Data Preparation</u>
- OSFI RUN CHART
- Run or Execution Expectations
- Data Flow from Source Systems to Staging Area
- Data Flow from Staging to Results Area
- Guidelines for Data Loading to Result Area Tables in Data Foundation for Regulatory Reporting
 Implementations
- FSDF Entity Information
- Fact Tables or Entities

4.1.1 Assumptions for Data Preparation

The following are the assumptions for data preparation:

- 1. RRS is a reporting solution, which uses data from underlying fact tables directly for reporting. The end-user is expected to prepare the load for the required data in the reporting area accordingly. Although this has a thin processing layer to reclassify to regulatory dimensions and bands, all the processing measures are expected to be from respective applications and provide as required.
- **2.** It is integrated with the results area of the respective processing application, and any change in the underlying processing can disturb the RRS data sourcing.
- **3.** Baseline and stress data must be populated with appropriate codes. Inaccurate mappings may lead to inaccurate results.
- **4.** For usage of consolidation dimension (which has values like Actual, Budget, Forecast, and so on), all historical data is expected to be tagged as actual to report vintage data, as per report

requirements. For projection data, for a given run and Projection Period (quarter or year), only one set of data is expected to be stored.

4.1.2 OSFI RUN CHART

Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI) provides the OSFI RUN Chart listing the tasks required for the population of data for OSFI Reports. This covers the following tasks:

- Run chart
- Data Load
- Dimension Data Population
- FSDF Source Run PMF
- OSFI REG RUN PMF

Download the OFS REG REP OSFI 8.1.1.0.0 Run Chart from the MOS.

4.1.3 Run or Execution Expectations

Run refers to execution. It is assumed that at different periods, a different combination of parameters, and different data require different executions. From a reporting perspective, as required by regulators, data is required for the following executions:

- **1.** Current Data or Execution
- a. Reporting month-end data
- b. Projection Data
- 2. Historical (trend or vintage) Data
- a. Yearly
- **b.** Quarterly
- 3. Stressed Data

NOTE	• For Movement measures data is not carried from one reporting period to another. For example, Profit or Loss. Where General ledger balances such as loan outstanding are carried forward from one year to another, profit and loss are period specific.
	• Therefore, unlike End of Period (EoP) balance, movement values for quarter actuals must be derived for reporting. For historical data, net sales for quarter 3 is the difference between the sales figure as of the end of quarters 2 and 3. You are not required to provide this difference as a download. Movement data for actual is identified through different runs and the respective values are summed up.
	 Only those records, whose corresponding runs fall between the fiscal month start date and end date of the reporting quarter are selected for summation. Each Run has an associated date and runs can be performed daily. Assuming that runs are performed daily in a given quarter (90 days), RRS sums up data points across all 90 days to arrive at a quarter-end movement figure.
	• However, when the projection of net sales for quarter 2 next year is to be performed, no derivation is required. Projections data for the said quarter can be directly downloaded in the respective Fact table (or tables) for reporting.

4.1.4 Data Flow from Source Systems to Staging Area

The staging area is populated with data from various data sources, such as GL data, Account data, Customer data, Trading data, Currency data, and Master data. See the <u>Data Integration Hub (DIH) User</u> <u>Guide</u> in OHC Documentation Library for details. DIH enables to load the data from the source systems to the OFSAA staging tables, through logical interfaces, known as Application Data Interfaces (ADI). DIH provides a set of User Interfaces (UI), which is used to define and maintain External Data Descriptor (EDD), Application Data Interfaces, and map the EDDs and ADIs through connectors.

4.1.5 Data Flow from Staging to Results Area

This section details the pass-through data, transformed data, and classification.

Topics:

- Pass-Through Data
- <u>Reclassified to Regulatory Classifications</u>

4.1.5.1 Pass-Through Data

Pass through data refers to the static data that is pre-processed and flows to the results area directly. The Common Staging Area (CSA) model represents the data entry point into the FSDF. 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 staging area is a physical data model, which is deployed using the Analytical Application Infrastructure, which manages it. 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 or transactional data across a bank.

The staging area acts as the single source of data and contains unified data requirements for various banking areas such as Loans and Losses, Off-balance Sheet products, Securities, Derivatives, Capital Data, Management Ledger and General Ledger. A common example of this category includes various monetary amounts, dates, and so on.

4.1.5.2 Reclassified to Regulatory Classifications

After transformation, the regulatory data is reclassified as follows.

	Table 3: Data Reclassification Example 1	
--	--	--

Source	Attribute	Interim Target	Target
DIM PRODUCT	Withdrawable Reserve	DIM STANDARD PRODUCT	DIM REG PRODUCT
Checking Accounts	= N	CASA	Current Accounts

Table 4: Data Reclassification Example 2

FCT REG ACCOUNT SUMMARY							
Account Number	REG PROD Classification	Remaining Maturity Band	Delinquency Band				
1	OTHER TERM LOAN	1	3				

The additional transformations that are performed are:

- Remaining Time to Maturity Band
- Regulatory Delinquency Band

Within reclassification rules, few rules where the source is customer-specific values. In such cases, these rules must be validated and updated as required by you because the ready-to-use rule can differ from what you have. Such rules are very few and restricted to the following:

- **1.** Standard Product Type Reclassification
- 2. Standard Party Type Reclassification
- **3.** Standard Mitigant Type Reclassification
- 4. Regulatory Industry Reclassification
- 5. Regulatory Credit Status Reclassification
- 6. Regulatory Loan Purpose Reclassification

See <u>Business Metadata</u> for details on these reclassifications.

4.1.6 Guidelines for Data Loading to Result Area Tables in Data Foundation for Regulatory Reporting Implementations

Regulatory reports make use of data available across several fact tables in the OFSAA data foundation model and these result tables are either loaded from the raw data sourced from source systems via out of the box T2Ts.

• Consistent Usage of Run Identifier

Most of the fact tables used in regulatory reporting are run enabled and have a composite primary key inclusive of run identifier that enables the same snapshot of data to be loaded multiple times into the target fact table for any given execution date. All the out of the box processes that impact data used in regulatory reports are executed as part of an integrated run to ensure that run identifier is consistent across fact tables. Since the reporting is done on an integrated schema, the customs data flow design must keep this integrity intact. This essentially means that the custom ETL processes designed to load the data directly into the fact tables must be able to leverage the run identifier generated by the run engine during execution. Run Identifier information is available in the DIM_RUN table.

• Correct Dimensional Lookup Configuration

Dimensional identifiers are typically part of referential integrity constraints with the fact table so the custom ETL processes must ensure that lookups retrieve a valid surrogate key for a given value of the business key. The intermediate staging structure must ensure all the business keys are persisted correctly and the lookup condition is designed on the correct dimension table.

From the OFSAA technical infrastructure standpoint, the mentioned options are available to the customer to design and implement the custom ETL process explained above. OFSAA strongly recommends the following options to maintain consistency in terms of data lineage in Metadata browser as the configured metadata can be made available in the meta-model through MDB publish:

- 1. Data Integration Hub (DIH) Connectors
- 2. Data Mapping (T2T) option in Application Infrastructure
- 3. Data File Mapping (F2T) option in Application Infrastructure

Topics:

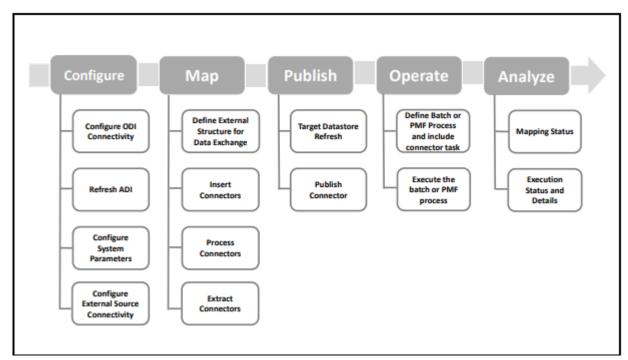
- DIH Connectors
- Data Mapping (T2T)
- Data File Mapping (Flat File to RDBMS Target F2T)

4.1.6.1 DIH Connectors

If you have a licensed DIH to source the data from the external systems into OFSAA, a DIH connector is the recommended approach to load the data into results. The Source data could either reside in a relational structure or a file structure. The mappings maintained in DIH are logical and they abstract the physical references including the Dimensional lookups seamlessly without the need for any additional join or configuration.

See the <u>Data Integration Hub (DIH) User Guide</u>, for more information about loading the data into a result area table.

Figure 26: DIH Connectors



4.1.6.2 Data Mapping (T2T)

Data Mapping refers to the process of retrieving unstructured data from data sources for further data processing, storage, or migration. This feature is commonly known as RDBMS source to RDBMS target (T2T) framework in the OFSAA world and can be leveraged when source data is available in the Oracle database. Dimensional lookups must be handled via the T2T's join condition and expressions. See the <u>OFSAAI User Guide</u> for more details on configuring a T2T.

4.1.6.3 Data File Mapping (Flat File to RDBMS Target - F2T)

If the source data is available in file structures, the OFSAA F2T component can be used to bring the data in the OFSAA ecosystem. As lookups cannot be configured in an F2T, this component must be used in conjunction with the T2T component, that is, data is first loaded from the file to an interim staging structure using the F2T component followed by data load to the target result area table using the T2T component. This is the least recommended approach as there is a need for interim table structure in the data model and involves multiple data hops that add to the overhead.

See the OFSAAI User Guide, for more details on configuring an F2T.

4.1.7 FSDF Entity Information

The FSDF entity information is given in the Dimension Tables and Data Elements documents available on the *MOS* page.

OFS Regulatory Reporting for Office of Superintendent of Financial Institutes Canada - Dimension Tables <release version>

OFS Regulatory Reporting for Office of Superintendent of Financial Institutes Canada - Data Elements <release version>

4.1.8 Fact Tables or Entities

For all tables with data flow type tagged as a Processing, it is recommended that you map data directly to the result area if the processing application is not part of the OFSAA product suite. For example, Basel computations, RWA Numbers, and Capital Ratio are taken from the processing area which is populated by OFSAA or other Basel applications.

For processed tables, you can look for the following options:

- OFSAA Data Integration Hub (DIH) product
- Flat File
- Table-to-Table Transformation with the source being processing application

The list of processing output tables is available in the OFS Regulatory Reporting for Office of Superintendent of Financial Institutes Canada - Data Elements <release version> document in the MOS page.

4.2 Overview of OFS REG REP OSFI User Interface

This section provides details to log in to the OFSAA application, view report summary, view schedule summary, view cells, and map data schedules. It includes:

- Logging in to OFS REG REP OSFI UI
- <u>Viewing Report Summary</u>
- Viewing Schedule Summary
- <u>Viewing Cell Summary</u>

4.2.1 Logging in to OFS REG REP OSFI UI

After the applications are installed and configured, to access the OFS REG REP OSFI UI you must log in to the OFSAAI environment using the OFSAAI login page.

NOTE The built-in security system ensures that you are permitted to access the window and actions based on the authorization only.

To access the OFS REG REP OSFI UI, follow these steps:

1. Enter the OFSAAI URL in your browser. The OFSAAI login page is displayed.

Figure 27: OFSAAI Log In

ORACLE [*] Financial Services Analytical Applications		<u>About</u>
$\overline{\mathbf{\Theta}}$		
	Language US-English 🗸	
	User ID	
	Password	
	Login	
Versi Copy	ion 8.1.0.0.0 yright © 1993, 2020, Oracle and/or its affiliates. All rights reserved.	

- 2. Select the desired language from the Language drop-down list.
- **3.** Enter your **User ID** and **Password**. When you log into OFSAAI, the **OFSAA Applications** page is displayed.

Figure 28: OFSAA Applications Screen

ORACLE [*] Financial Services Analytical Applications			💷 歳 🗎	US-English 🔻 RRRUSER 🔻 🛞 🔯
APPLICATIONS	0-0	0-0		
	Financial Services Data Foundation Application for Financial	Regulatory Reporting for Office of the Superintendent of		
	Services Data Foundation	Superintendent of Financial Institutions Canada Regulatory reporting for Office of the Superintendent of Financial Institutions Canada		

4. Select the Financial Services Data Foundation. The FSDF landing page is displayed.

Figure 29: Financial Services Data Foundation Landing Page

🖀 Home	ORACLE' Financial Services Data Foundation	
Navigation List		
Financial Services Data Foundation		

Or select the **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada.** The Regulatory Reporting for Office of Superintendent of Financial Institutes Canada landing page is displayed.

# Home		ORACLE' Regulatory Reporting for Office of the Superintendent of Financial Institutions Canada	💼 歳 🗈
Navigation List			
🖸 Data Elements			
Administration	>		
😇 Data Management	>		
🔄 Metadata Management	>		
Process Modelling Framework	>		
Operations	>		
🗟 Regulatory Data Extract			
🔁 Metadata Browser			

Figure 30: Regulatory Reporting for Office of Superintendent of Financial Institutes Canada Page

- 5. Select the Navigation Menu
- $^{
 m J}$ in the OFS REG REP OSFI UI to access the following windows:

- a. Home
- b. Data Elements
- c. Administration
 - i. Map Maintenance
 - ii. Save Metadata
- d. Metadata Management
 - i. Dataset
 - ii. Build Hierarchy
 - iii. Measure
 - iv. Business Processor
 - v. Derived Entity
 - vi. Reports
- e. Process Modelling Framework
 - i. Process Modeller
 - ii. Process Monitor
 - iii. Process Execution Summary
- f. Operations
 - i. Batch Maintenance
 - ii. Batch Execution
 - iii. Batch Monitor
- **g.** Regulatory Data Extract
- h. Metadata Browser

i. Report Statistics

4.2.2 Viewing Report Summary

The Report Summary data comes pre-seeded based on the applications that are installed. The Report Summary enables you to view all the configured reports for the jurisdiction.

After logging into the OFS REG REP OSFI UI, navigate to **Metadata Management** and select **Reports** to view **the Reports Summary** window.

ORACLE [*] Regulatory Reporti Canada	ng for Office of the Superinte	enden	t of Financial Institutions	5	ii 📩 👘	US-English 🔻	OFSAD 🔻 🔗
Report Summary							^
Search Configured Reports							
	E2	00	N3	90			<u>~</u>
	13 Schedules 404 2 Cells Derived Entities Mortgage Loans Report		4 Schedules 151 2 Cells Derived NON-MORTGAGE AND MORT IN ARREARS	Entities			

NOTE	You can view the summary of all the configured reports in the
	Tile view 🔲 or List view 📕 .

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information on the search box. You can search for a Report using either the name or description.

Figure 32: Report Summary Search Bar

	ORACLE [*] Regulatory Reporting for Office of the Superintendent of Financial Institution Canada	ns 🛄	ŝ	41	US-English 🔻	ofsad 💌	с. С
Repo	rt Summary						
Search	Configured Reports						≣

The Paging option at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

Figure 33: Report Summary Paging Option

E2	00
13	
Schedules	
404 2	
Cells Derived Entitie	s
Mortgage Loans Report	

4.2.2.1 Report Information

Each tile or list on the Report Summary window corresponds to one report. For each report, you can view the report code, report description, number of schedules within the report, the number of configured non-derived cells, and count of utilized derived entities.

For example, the E2 report in the tile or list view is displayed as follows:



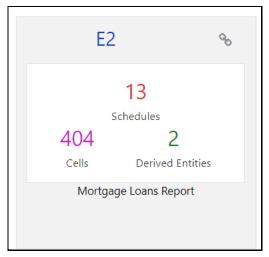


Figure 35: Report in List View

ORACLE [*] Regulatory Reporting for Of Canada	fice of the Superintendent	of Financial Institutions	💼 📩 🛓	US-English	▼ OFSAD	• & Ø
Report Summary						
Search Configured Reports						:
E2 Mortgage Loans Report	404 Cells	2 Entities	13 Schedules	90	Data Elements	1
N3 NON-MORTGAGE AND MORTGAGE LOANS IN ARREARS	151 Cells	2 Entities	4 Schedules	00	Data Elements	

Select the **Report Code** to navigate to the **Schedule Summary** window.

Figure	36:	Report	Information
--------	-----	--------	-------------

E2 %	
13	
Schedules	
404 2	
Cells Derived Entities	
Mortgage Loans Report	

4.2.3 Viewing Schedule Summary

The Schedule Summary window provides the component schedules for the corresponding report. Select the Report Code in the Report Summary window to navigate to the Schedule Summary window (as shown in Figure 37).

For example, the Schedule Summary window for the E2 report is displayed as follows.

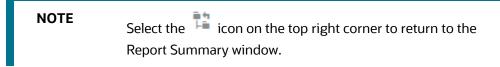
Figure 37: Schedule Summary Screen

≡ o		gulatory Report nada	ing for Office of	the Superintenden	t of Financial Ins	titutions	💼 📩 🖻	US-English 🔻	ofsad 🔻 🕺
Schedule	Summary f	or E2							19 19
Search Config	ured Schedules]							
	E2MSA	Q0	E2MS	B %	E2MS	SC %	E2MS	D %	Î
	12 Cells Deri	2 ived Enities	49 Cells	2 Derived Enities	4 Cells	2 Derived Enities	101 _{Cells}	2 Derived Enities	
	Section A - Information located in Ca			tgage Loans Report - g the quarter (Canada)		tgage Loss Reporting Tanada)		ge Loans Report - Entire lio (Canada)	
	E2MSE	90	E2MS	F %	E2MS	G %	E2MS	H %	
	18 Cells Deri	2 ived Enities	16 _{Cells}	2 Derived Enities	10 _{Cells}	2 Derived Enities	32 Cells	2 Derived Enities	
	Section D - Mortgage Loa			ial Mortgage Origination		ntial Mortgage Approval		ually Insured Residential	

NOTE You can view the summary of all the configured reports in the Tile view or List view.

The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information on the search box. You can search for a Schedule using either the name or description.

The Paging option (Figure 38) at the bottom right corner allows you to see more reports than the ones currently displayed on the window.

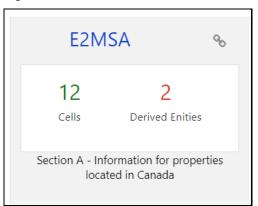


4.2.3.1 Schedule Information

Each tile or list on the Schedule Summary window corresponds to one schedule under the report. For each schedule, you can view the schedule code and the description, the number of configured non-derived cells for the schedule and the count of utilized derived entities.

For example, the Schedule Page3 tile is displayed as follows. Select the Schedule Code to navigate to the Cell Information window.

Figure 38: Schedule Information



4.2.4 Viewing Cell Summary

The Cell Summary window provides the non-derived cells or MDRMs configured as a part of the solution for the corresponding schedule under a report. Select the Schedule Code in the Schedule Summary window to navigate to the Cell Summary window (as shown in Figure 39).

For example, the **Cells for Schedule E2MSA** summary window under the E2 report is displayed as follows.

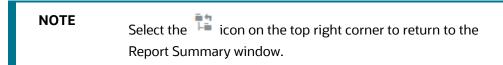


Figure 39: Cell Summary Window



The Search Bar helps you to find the required information from the database. You can enter the nearest matching keywords to search and filter the results by entering information on the search box. You can search for a Cell using either the name or description.

The Paging option (Figure 39) at the bottom right corner allows you to see more reports than the ones currently displayed on the window.



Topics:

- <u>Cell Information</u>
- Derived Entity
- <u>Measure</u>
- Filters

4.2.4.1 Cell Information

Each tile or list on the Cell Summary window corresponds to one cell or MDRM under the schedule. For each cell, you can view the MDRM name, count of utilized derived entities, count of utilized OFSAA hierarchies, and measures for that cell.

For example, the cell E2_2349 tile is displayed as follows. Select the cell or MDRM Code to navigate to the Cell Information window.

Figure 40: Cell Information



The Cell Information window is displayed as follows.

Figure 41: Cell Information Window

Cell Information for CRSAR040C180	12
Derived Entity: DE - Regulatory Adjustments Measure: Adjusted Amount	ו ר
Filters	
Regulatory Report Cell Identifier Regulatory Report Code	
Entity: Regulatory Reporting Cell Dimension Hierarchy Level Expression: DIM_REG_REPORT_CELLv_cell_id	
CR5AR040C180	
CRSAR040C180	

Each section in the Cell Information window displays the relevant OFSAA Metadata and filters used for the cell.

4.2.4.2 Derived Entity

This displays the name of the OFSAA Materialized View or View that contributes to the Cell.

4.2.4.3 Measure

This displays the name of the OFSAA Measure that is reported for the particular Cell.

4.2.4.4 Filters

The Filter conditions are as follows:

- **1.** All filters that are applied to the cell are displayed under the filter section. It displays all the applied filters as their OFSAA description.
- **2.** On selection, the filter is marked by a *sign* on the top left corner of the selected filter.
- **3.** The section that follows displays the entity or table on top of which the filter is based and the OFSAA Level Description for the selected filter.
- **4.** All filter values that apply to the particular MDRM are available as a ribbon. Each filter value is in a separate box.

For example, in the previous case for MDRM E2_2349, the applied filters are Consolidation Code and Reporting Line Code. Currently, the Consolidation Code filter is selected and the required filter values for the same are 100.

In the case of multiple values, the filters are displayed as follows with an arrow mark.

Figure 42: Multiple Filter Values

Measure: EA	AD Pre Mitigation Drawn Exp With	hout CCF
ters		
Basel Approach Code	Exp Treated as High Risk Flag	>
imension AN_FLAGS11.V_FLAG_CODE		
Y.		
Y		
AI Y	N_FLAGS11.V_FLAG_CODE	N_FLAGS11.V_FLAG_CODE

The filters in case of not in condition are highlighted in red are displayed as follows.

Approach Coo	ede	p Treated as High Risk Flag	>
/_FLAG_CODE			
, <u>, _, _, _</u>			

Figure 43: Not in Condition Filters

4.3 Adjustment Feature for Template-based Reports

The adjustments feature is a new enhancement to adjust the differing values of the report systems. The Adjustments Derived Entity derives its values from the Adjustments Fact table (FCT_REG_REPORT_ADJUSTMENTS) that specifies the adjustment value and the seeded table (DIM_REG_REPORT_CELL) that specifies the Cell ID or MDRM Code and the Report Code to which the MDRM belongs to. This ensures that there can be direct adjustments made to MDRM(s) such that the values from both the derived entities are traceable and efficiently reported.

4.3.1 Implementing the Adjustment Feature

To implement the Adjustment feature, identify the Cell ID for the report and the line item where adjustment must be implemented.

For example: **E2** Report

NOTE

The Adjustment feature works only for fixed table cells (Open Y cells are not supported).

The report currently displays a Total value = 3,33,161 for the identified cell as shown in the following figure.

Figure 44: Adjustment Feature

AgileREP	ORT	ER* E2	v1 Office o	f Superintender	nt of Financial Ins	stitutions /	WFBNA 12/3	1/2015			Not App	roved (0/1)		×
Show Impo	rt Log E	Export to File		nents 👻 Sub	omit 🔊 Live '	/alidation	Validat		 ✓ Workflow Scaling ● 	Return Sources Editions 07/21/2021 20:52:20	✓ Reports 3 #4	✓ Analysis ✓ L Mana Edition	^{ge} Instances 1	- 0 0
	2710	NULL NULL										^	Pages	ŕ
	Insured	- High-Ratio	Insured - Co		Uninsured		Total	with m u	n: Properties fore than 4 units				Summary Validation Rule Failu	PARI
	2800	NULL	2801	NULL 280	2 2,14	9 2803	2,149	2323	149				▶ 0 Critical	
	2804 2808	NULL	2805 2809	NULL 280 NULL 281	o NUL	L 2811	NULL	2324	NULL				▶ 0 Warning	
	2812 2816 2820	NULL NULL NULL	2817	NULL 281 NULL 281 NULL 282	8 NUL	L 2815 L 2819 L 2823	NULL NULL NULL						Page1	
	2820	NULL	2825	NULL 282	6 NUL	L 2823	NULL					~	Page2 Page3	
												,	, agoo	
ADJUSTMENTS	<u>E2_280</u>	<u>)2</u> Aggre	gation:SUM						R	eports				₽ ▲ ▼
VALIDATION														Columns -
PROBLEMS	ADJUSTE	ED_AMOUNT		BPADJU	STMENT_DESCRI	PTION	REGULATO	RY_REPOR	T_CELL_IDENTI	FIEF REGULATORY_REPORT_C	ODE	CALENDAR_DATE		RUN_DESCRIPTION
ALLOCATIONS	2000				R RECONCILE		E2S1MAR	7C3		E2		12/31/2015		8
				<										>

Now, the requirement is to adjust this amount to 15,00,000+3,33,161=18,33,161

NOTE The Adjustment feature works only for fixed table cells (Open Y cells are not supported).

Topics:

- <u>Populating Base Tables</u>
- <u>Refreshing Adjustment Derived Entity</u>
- Lombard Verification

4.3.1.1 Populating Base Tables

FCT_REG_REPORT_ADJUSTMENTS: This table must be populated with the requisite *Adjustment Amount* and other related columns.

For example:

N_ADJUSTED_AMT = 500000000

The corresponding **N_CELL_SKEY** value must be picked from DIM_REG_REPORT_CELL for the respective **CELL_ID**. The DIM_REG_REPORT_CELL table is pre-seeded with cell IDs for reports supported for this feature.

The following columns must also be updated accordingly:

- 1. N_ENTITY_SKEY
- 2. N_RUN_SKEY
- 3. N_MIS_DATE_SKEY

NOTE V_PAGE_INSTANCE_VALUE shall be populated with appropriate instance value for reports with page instance filters. The page instance filter value shall match the values as populated in the DE hierarchy for page instance. The adjustment value shall be provided for all the page instance values that require adjustment including the "Total" instance. This attribute can be ignored for the reports without page instance.

4.3.1.2 Refreshing Adjustment Derived Entity

Execute the resave batch for Adjustments (<<INFODOM>> LIQUIDITY_REPORTS_ACC_RESAVEDE), to save the Adjustment derived entity - DEADJ001.

This ensures that the adjustment amount is reflected in the adjustment derived entity DEADJ001.

4.3.1.3 Lombard Verification

Post adjustments, the retrieved report should reflect the amount that is coming from the sourced systems and the adjusted amount.

The retrieved report should reflect the amount after adjustments as shown in the following figure.

(2,06,24,54,006 +500000000) = 5002062.454006

gil	eREPORTER [®] CRSA v8 European Common Repo	rting / A25 09/30/2016		Nota	Approved (0/1)			
n,	A Show Import Log Export to File * Adjustments * Submit	Live Validation	Validate Now 👻 Workflov	Editions 07/02/2020 12		Analysis • C Manage Instances C	Claims on in	ist & corp with CR assessment 💌 🚺
					.,	.,	^{si} ▲	Pages
		010	030	040	050	060		
	TOTAL EXPOSURES	48,719	5,172,024	5,220,743	502	3,460		Summary Validation Rule Failures
015	of which: Defaulted exposures in exposure classes "items associated with a particular high risk" and "equity exposures"	NULL	NULL	NULL	NULL	NULL	_	▶ 0 Critical
020	of which: SME	NULL	NULL	NULL	NULL	NULL		• 0 Warning
030	of which: exposures subject to SME-supporting factor	NULL	NULL	NULL	NULL	NULL		Page 1
	of which: Secured by mortgages on immovable property - Residential property	NULL	NULL	NULL	NULL	NULL		Page 2
050	of which: Exposures under the permanent partial use of the standardised approach	NULL	NULL	NULL	NULL	NULL		Page 3
060	of which: Exposures under the standardised approach with prior supervisory permission to carry out a sequential IRB implementation	NULL	NULL	NULL	NULL	NULL		Page 4
	BREAKDOWN OF TOTAL EXPOSURES BY EXPOSURE TYPES:							Page 5
070	On balance sheet exposures subject to credit risk	-489,624	5,002,062	4,512,438	52	361		Page 6
080	Off balance sheet exposures subject to credit risk	1,453	2,143	3,595	238	1,644		
	Exposures / Transactions subject to counterparty credit risk							
090	Securities Financing Transactions	536,802	162,071	698,873	123	848		
100	Of which: Centrally cleared through a QCCP	126,806	38,273					
110	Derivatives & Long Settlement Transactions	89	5,747	5,836	88	607	-	

Figure 45: Lombard Adjustment Verification

NOTE

The Adjustment amount can be negative to achieve a subtracted amount.

4.4 Mapping of Results to Reporting Requirements of Lombard Risk

Figure 46 explains the flow of data between OFSAA and AgileREPORTER.

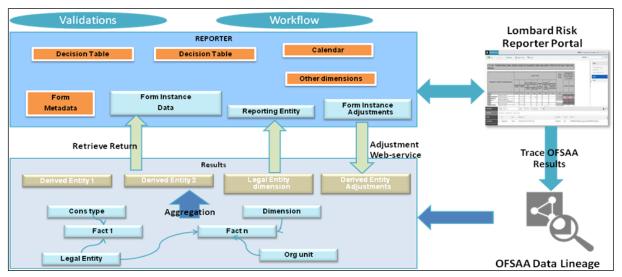


Figure 46: Data Flow between OFSAA and AgileREPORTER

OFSAA provides the data to AgileREPORTER in the form of derived entities. The derived entity is an existing OFSAA higher-order metadata object and can be physicalized as a materialized view in the database. Derived entities store aggregated data from base fact entities specified in the dataset and have the necessary dimensions and measures.

Dimensional and measure combination stored within the derived entity is mapped to cells within the report. This mapping is maintained within the *Dimensional Mapping* template.

Decision Process within AgileREPORTER reads the derived entities and dimension mapping information to derive the data for reporting. Derived entities are created based on measures, hierarchies, and datasets.

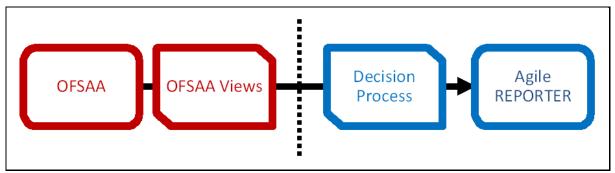


Figure 47: Decision Process in AgileREPORTER

Some cells in the schedule can be derived as per the logic provided by the regulator. Derivation can be an expression built using values from other cells. Examples of derivation are ratio, node-level rollup, a direct reference to cells in other schedules within the report. These derivations are performed within the AgileREPORTER. OFSAA provides data only for the cells that are not derived.

NOTE	Metadata for data transformation is available as part of the data warehouse configuration pack provided ready-to-use or preconfigured from OFSAA. You need not perform any mapping for the reports. However, this information can be useful for maintenance or extensions when a ready-to-use pack is not available.
	•

4.5 AgileREPORTER: Submission

The AgileREPORTER is a web-based regulatory reporting tool provided by Lombard Risk. It provides necessary features to address e-filing workflow, validation, and submission process and supports reports (called as forms or returns) for various jurisdictions. AgileREPORTER provides a reliable and efficient infrastructure to compile, generate, and submit regulatory reports.

5 OFSAA Features

This chapter provides an understanding of the AAI components used in the solution and dimensional mapping.

Topics:

- OFSAA Infrastructure
- Business Metadata
- Derived Entity
- Dimension Mapping

Regulatory Reporting Solution (RRS) configures the data hand-off structure to Lombard using metadata. The following sections provide details on datasets, measures, hierarchies, and Derived Entities. Multiple derived entities are linked to a specific regulatory schedule. You can modify the configuration using the OFSAA infrastructure. Additionally, the metadata route provides traceability from reporting elements to the data elements used.

5.1 OFSAA Infrastructure

OFSAA Infrastructure includes the facilities for creating and maintaining dimensional reference data, interest rate, and currency exchange rate data, and process tuning data. Additionally, OFSAA Infrastructure includes functionality for building and maintaining rules that can be used by any Oracle Financial Services Analytical Application. These common rule objects include:

- Expressions
- Hierarchies
- Filters

The analytical applications that you see on the Left-Hand Side (LHS) of the Financial Services Applications home page depending on your logon privileges and on the OFSAA modules that are installed for your environment.



# Home		ORACLE [®] Financial Services Data Foundation	 ħ	Â.
< Financial Services Dat				
Data Model Management	>			
Data Management Framework	>			
Unified Analytical Metadata	>			
Rule Run Framework	>			
Run Management	>			
Operations	>			
Settings	>			
Metadata Browser				
CommonComponents	>			

5.2 Business Metadata

In addition to Derived Entity, RRS uses the following OFSAA features to create the business metadata. For details on the features, see the <u>OFS Analytical Applications Infrastructure User Guide</u>.

- **Hierarchies**: Some OFSAA dimensions support hierarchies. Hierarchies can be used to provide sophisticated stratification for either processing or reporting purposes. For example, an organizational hierarchy can start with a Division level containing Western Region, Eastern Region, and Southern Region; the next level down within the hierarchy can be state or county. A product hierarchy can begin with branches for Asset versus Liability versus Service products; under the Asset branch, you can define additional branches for Mortgage Lending, Commercial Lending, Consumer Lending, and so on.
- **Measures**: Business Measure refers to a uniquely named data element of relevance that can be used to define views within the data warehouse. It typically implies aggregated information as opposed to information at a detailed granular level that is available before adequate transformations.
- **Business Processor**: It refers to a uniquely named data element of relevance that can be used to define views within the data warehouse. It typically implies aggregated information as opposed to information at a detailed granular level that is available before adequate transformations.
- **Datasets**: It refers to a group of tables whose inter-relationship is defined by specifying a join condition between the various tables. It is a basic building block to create a query and execute a data warehouse for a large number of functions and to generate reports.

5.3 Derived Entity

It is the primary component of OFSAA used for OFS REG REP OSFI. Regulatory Reporting Solution uses Derived Entity to create a physical materialized view which is then queried by Lombard using preset data handoff templates. An Entity refers to a table in which data is stored. Derived Entity within the infrastructure system facilitates you to define entities that are populated through a series of data transformation processes resulting from an existing Dataset or a Source Application. An Entity can be used to define other Business Metadata such as measures, hierarchies, dimensions, Datasets, and cubes.

Derived Entities comprise the following:

- Measures
- Hierarchies
- Datasets

Ensure to define the above components within OFSAA before configuring the derived entity and select **Materialized View** property in Derived Entity. This property creates the derived entity as materialized views.

1. Navigate to **Regulatory Reporting for Office of Superintendent of Financial Institutes Canada,** select **Metadata Management,** and then select **Derived Entity**. The existing derived entities summary screen is displayed. You can Add a new derived entity and Edit, View, Delete, or Copy an existing derived entity.

Summary Screen Home > Summary Screen					
✓ Search and Filter					Q Search "D Reset
Code			Source Type		*
Short Description			Authorized		
Oerived Entity					
· Derived Entry					
🕂 Add 🕼 Edit 📑 View 🗊 Delete 🗋	Copy 🚺 Partitions				6 3
Code	Short Description	Long Description	Creation Date	Source Type	Materialize View
DEADJ001	DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
DEADJ001	DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
DEADJ001	DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
DEADJ001	DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
	DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
DEADJ001	DE - Regulatory Adjustments				
DEADJ001 DEADJ001	DE - Regulatory Adjustments DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
DEADJ001		DE - Regulatory Adjustments DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020 Wed Apr 15 19:03:34 IST 2020	Dataset Dataset	Yes Yes
DEADJ001	DE - Regulatory Adjustments	· · · ·			
DEADJ001 DEADJ001	DE - Regulatory Adjustments DE - Regulatory Adjustments	DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020	Dataset	Yes
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DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001 DEADJ001	DE - Regulatory Adjustments DE - Regulatory Adjustments	DE - Regulatory Adjustments DE - Regulatory Adjustments	Wed Apr 15 19:03:34 IST 2020 Wed Apr 15 19:03:34 IST 2020	Dataset Dataset Dataset Dataset Dataset Dataset	Yes Yes Yes Yes Yes Yes

Figure 49: Derived Entity Summary Page

2. Click Add to create a new Derived Entity.

Figure 50: Derived Entity User Interface

Derived Entity Details Home > Summary Screen > Deriv	ed Entity Details			
✓ Derived Entity Details				'O Reset
* Code		Refresh Interval	None	Ψ.
* Short Description		Refresh Method	None	T
Long Description		Enable Query Rewrite		
* Source Type	Dataset v	Parallelism		
Aggregate		Hint		
Materialize View	\bigcirc	Prebuilt Table		
Dataset Name		Partition		Ψ.
Source Name				
∨ Metadata Tree				🔚 Save 🛛 🛇 Close
Available Values		Selected Values		
				~
				^

5.3.1 Creation of Derived Entity

Derived Entities must have **Code, Short Description,** and **Source Type** mandatory dimensions as shown in Figure 91. The rest of the structure of the derived entity can vary depending on the dimensions present. A metadata configuration table is present in AgileREPORTER to link the name of the column in the derived entity and dimension that is referred to in the dimension mapping process.

Derived entities have data for the *Final Reporting Run* only, which is reported to the Regulatory, and are refreshed for the latest hand-off date.

A metadata configuration table is maintained within AgileREPORTER to capture the derived entities that supply data for each schedule.

See the <u>OFS Analytical Applications Infrastructure User Guide</u> for more information on creating a derived entity.

5.4 Dimension Mapping

Each cell reference is mapped to a set of dimensions and measures. This mapping is documented in excel and then converted to a Decision table through an offline utility provided by AgileREPORTER. A decision table is a metadata object within AgileREPORTER that stores the criteria for deriving value for each cell reference. The metadata is packaged for a regulatory report as part of the OFS Risk Regulatory Solution. The decision table process within AgileREPORTER reads the metadata and derived entity published by OFSAA to populate data required for returns for the specified date and legal entity.

The following table is an example of dimension mapping. Each cell reference is mapped to a set of dimension members and measures. If a dimension is left empty for a cell reference, it indicates that it is not participating in the mapping process. If there are multiple mappings for a cell reference, then the value of this cell can come from any of these criteria.

The decision mapping table is processed against the contents of the derived entity to reporting data. Each record of the derived entity is matched against the criteria specified in the decision table to identify the cell reference and derive return data (such as cell reference and cell value).

NOTE All the dimension member codes that are used in the decision table are pre-seeded by OFSAA and cannot be modified. Therefore, if you have other member codes in the dimension, then you must reclassify them by using the reclassification rule post load, or value-code mapping during load.

Decision tables must be prepared closer to the report submission period. In some cases, reclassification of multiple dimensions that result in a single unified reporting dimension must be performed to address the complexity of the decision table. Reclassification rule is defined in OFSAA and packaged as part of the OFSAA Risk Regulatory Reporting Solution.

In some cases, certain sections of the schedule or the entire schedule can be a list of data rows without any mapping to a fixed set of dimension members. For example, Top 20 counterparties, List of Available for Sale (AFS) – securities. In such cases, since there are no cell references, decision table mapping specifies the names of dimensions and measures of derived entities in the *sheet* column or *row* column of the template.

NOTE As a part of the solution, metadata exists as ready-to-use or preconfigured with the installer.

6 Executing Run through Process Modelling Framework in OFS REG REP OSFI

Process Modeling Framework (PMF) is a design and execution framework that enables the Process Pipeline developers to implement various Pipelines modeled by the Business Analysts. The Process Pipeline developers use the framework to orchestrate the Business Pipelines and the Run Pipelines within OFSAA and to design the artifacts that participate in the Pipelines to complete their implementation.

This chapter provides information about the usage of the Process Modeling Framework (PMF) feature in the Oracle Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI) application.

NOTE For detailed information about the Process Modeling Framework (PMF) feature in OFSAA, see the <u>Process Modelling Framework Orchestration</u> <u>Guide</u>.

This chapter includes the following topics:

- Overview
- Designing a Pipeline in OFS REG REP OSFI
- Verifying the Execution Logs

6.1 Overview

In OFS REG REP OSFI, Process Modelling Framework (PMF) is used to create a Run definition in a Run process. The visual representation of the Run is enabled through PMF by the construction of a Run Pipeline. PMF is a feature in parallel to the Run Management feature. Through the PMF, you can execute the following two Ready-to-use Runs for data loading:

- Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI) Sourced Run
- Financial Services Regulatory Reporting for Office of Superintendent of Financial Institutes Canada (OFS REG REP OSFI) Execution Run

6.2 Designing a Pipeline in OFS REG REP OSFI

You can design the process flow diagrams for both the processes (Business Process Pipeline and Run Pipeline). This is an example of a process flow diagram for a Run Pipeline (for OFS REG REP OSFI Sourced Run).

After you create, design, and define the process in the process flow diagram, you must assign values to the Run parameters, and execute the Run. You can execute a Run Pipeline from the UI or using a command-line utility called wfExecExternal.sh.

This section includes the following topics that describe the Run Pipeline execution from the UI:

- Selecting the Run Parameters and Executing the Run
- <u>Verifying the Run Execution</u>
- <u>Verifying the Execution Logs</u>

NOTE For information about executing the Run Pipeline using a command-line utility, see the section *Using Command Line Utility* in the <u>Process</u> <u>Modelling Framework Orchestration Guide</u>.

6.2.1 Selecting the Run Parameters and Executing the Run

After designing and saving the process flow diagram, the Process is listed in the Process Modeler page.

To select the Run parameters and execute the Run, follow this procedure:

- After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutes Canada, select Process Modelling Framework, and then select Process Modeller.
- 2. In the **Process Modeller** page, click **More** corresponding to the Run Pipeline that must be executed.

Figure 51: Process Modeler Screen

=		Office of the	Superintendent of Finance	ial Institutior	ns Canada	🌐 💩 🗄	US-English 💌	RRRUSER 🔻 👌	% 🖸
Home > Process M	Process Modeller Iodeller						+	- @ ?	
۹					C	Sort By Application	•		
P	PR_Run_Details Process Id PR_RUN_DETAILS_PRC Description Move data to Run Details table	ß	0 Version	10 Instances	Application Financial Service n Type SUBRUNPROCESS	es Data Foundatio Last Modified By RRRUSER Last Modified Date 2021-05-25 13:59:08		; •	
P	PMF_REGCM_FUND_LE ND_DE_REFRESH_SUB PRC Precess tid 15/18/22.009935 Description PMF Regulatory common DE Refr en Fund Land Sub Process	ß	0 Version	21 Instances	Application Regulatory Rep- omponents Type SUBRUNPROCESS	orting Common C Last Medified By SYSADMN Last Medified Date 2021-05-25 11:43:00	ŵ	: •	
P	PMF_REGCM_REG_PAR AMS_RESAVE_PROCES S Process Id 101500130230 Description PMF Regulatory Common Parame ter Rease Process	ß	0 Version	15 Instances	Application Regulatory Repr omponents Type SUBRUNPROCESS	orting Common C Last Medified By SYSADMN Last Medified Date 2021-05-25 11:43:00	Ŵ	: •	
P	PMF_REGCM_REG_FU ND_LEND_PROCESS Process Id 1618682683570	Ľ	0 Version	4 Instances	Application Regulatory Repr omponents Type SUBRUNPROCESS	orting Common C Last Modified By SYSADMN Last Modified Date 2021-05-25 11:43:00	1	: •	

3. When you click **Execute Run**, the **Select Run Params** window is displayed.

Execution	
Execution Type	
With Parameters	•
FIC MIS Date	Ē
05/28/2021	
Consolidation Hierarchy	Ø
Default Org Structure Hierarchy	
Consolidation Type	
Solo	•
Intra Company Elimination	
No	•
GAAP Code	
ADGAAP - Andorra GAAP	¢
Reporting Currency	\sim
ADP - Andorran Peseta	
Legal Entity	0

Figure 52: Select Run Parameter Screen

- 4. Select the **Execution Type** as **With Parameters** from the drop-down list.
- 5. Select or enter the required values for each field as follows.

Table 5: Run Parameter Fields and Descriptions

Field Name	Description or Instruction
Reporting Currency	Enter the Reporting Currency Code used to calculate the amount during the data population in the target table.
Legal Entity	Select the Legal Entity Code to identify the legal entity used for the Run.
Consolidation Type	Select the Consolidation Type of legal entities on a solo or consolidation basis. In a Solo Run, only the selected legal entity is used. In a Consolidated Run, along with the selected legal entity, all its child legal entities are also used.

Field Name	Description or Instruction
Intra Company Elimination	Select the Intra Company Elimination type to eliminate (YES) or skip the elimination (NO) of Intra Company Accounts during a Consolidated Run.
Consolidation Hierarchy	Enter the Legal Entity Hierarchy used for the consolidated run. This parameter is not required for the Solo Run.
GAAP Code	Enter the required accounting standard.
FIC MIS Date	Select the extraction date.
BackDated Execution	Select the option Yes from the drop-down list if the run is executed for a prior date else NO . For example, Regulatory refiling.
Run Execution Description	Enter a longer description of the Run.

6. When you click , the Run execution begins. The **Select Run Params** window closes.

NOTEThe execution of the Run Pipeline is triggered using the selected FIC MIS
DATE. The Run SKey is generated and inserted into the DIM_RUN table.
For the Run SKey generated, the corresponding user-selected Run
parameters are inserted into the RUN_EXE_PARAMETERS table.

6.2.2 Verifying the Run Execution

After selecting the Run parameters and beginning the Run execution, verify the progress of the Run.

To verify the Run execution progress, follow this procedure:

1. In the **Process Modeler** page, click **More** corresponding to the Run Pipeline that must be verified. Click **Process Flow Monitor**.

\equiv	ORACLE' Regulatory Reporting for	Office of t	he Superintendent of Financ	ial Institutio	ns Canada		📋 💩 🗉	US-English	Ŧ	RRRUSER 🔻	&	C
	 Process Modeller Modeller 								+	0	3	
۹					G	Sort By Application			•			
Р	PR_Run_Details Process Id PR_RUN_DETAILS_PRC Description Move data to Run Details table	Ľ	0 Version	11 Instances	Application Financial Servic n Type SUBRUNPROCESS	Last	Modified By RRRUSER Modified Date 2021-05-25 13:5	i9:08	Ì	:	•	
P	PMF_REGCM_FUND_LE ND_DE_REFRESH_SUB PRC Precess ld 16182020935 Description PMF Regulatory Common DE Refr eth Fund Lend Sub Process	Ľ	0 Version	21 Instances	Application Regulatory Rep omponents Type SUBRUNPROCESS	Last	Modified By SYSADMN Modified Date 2021-05-25 11#	13:00	Ĩ	:	·	
P	PMF_REGCM_REG_PAR AMS_RESAVE_PROCES S Process Id 1018001330200 Description PMF Regulatory Common Parame ter Resave Process		0 Version	15 Instances	Application Regulatory Rep omponents Type SUBRUNPROCESS	Last	Modified By SYSADMN Modified Date 2021-05-25 11x	13:00 Ū	IJ	:	Ŧ	
Р	PMF_REGCM_REG_FU ND_LEND_PROCESS Process Id 1616682683570	ß	0 Version	4 Instances	Application Regulatory Rep omponents Type SUBRUNPROCESS	Last /	Modified By SYSADMN Modified Date 2021-05-25 11;	13:00	Ū	:	•	

2. The **Process Monitor** window is displayed. You can see the generated process flow ID, the Run execution timestamp, and the status of the Run execution. To verify the Run execution status at the Pipeline level, click the corresponding process flow ID.

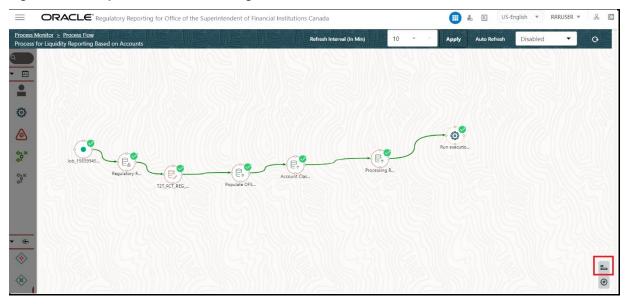
Figure 54: Process Monitor Screen

=	ORACLE* Regulatory Reporting for Office of the Super	rintendent of Fi	nancial Institutions Canada	🗄 膨 US-English 🔻	RRRUSER 🔻 🔏 🖸
Home → Process M	Process Monitor Aonitor				<u>e</u> ?
۹			C		
D	1622203447347 Entity Name Default Object Name Process Name PR,Ran, Details	ß	Process Description Move data to Run Details Execution Start Time 28-MAY-21 054623 table Last Execution Time 28-MAY-21 054638	Last Updated By RRRUSER Status COMPLETED	: •
D	SubProcess_JOB_16207255144122 Entity Name Default Object Name Process Name Process for Liquidity Reporting Based on Accounts	ß	Process Description Process for Liquidity Rep Execution Start Time 26-MAY-21 04:17:38 orting Based on Accounts Last Execution Time 26-MAY-21 04:22:28	Last Updated By RRRUSER Status COMPLETED	÷ •
D	1622025738817 Entity Name DryRunTest 4,15 Process Name Regulatory Reporting OSFI Run Based on Accounts	Ľ	Process Description Regulatory Reporting OS Execution Start Time 26-MAY-21 04:15:56 FI Run Based on Accounts Last Execution Time 26-MAY-21 04:22:28	Last Updated By RRRUSER Status COMPLETED	: •
D	SubProcess_JOB_16207140510162 Entity Name Default Object Name Process Name PR,Run,Details	ß	Process Description Move data to Run Details Execution Start Time 26-MAY-21 04:16:08 table Last Execution Time 26-MAY-21 04:17:38	Last Updated By RRRUSER Status COMPLETED	: •
D	SubProcess_JOB_16207117462422 Entity Name Default Object Name Process Name FSDE Legal Entity Hierarchy Load Process		Process Description FSDF Legal Entity Hierarc Execution Start Time 26-MAV-21 04:15:57 hy Load Process Last Execution Time 26-MAV-21 04:16:08	Last Updated By RRRUSER Status COMPLETED	: •

3. The process flow diagram window is displayed. The *icon* at each Sub Pipeline indicates that the Run execution is successful.

NOTE The icon at each Sub Pipeline indicates that the Run execution is unsuccessful.

Figure 55: Run Pipeline Process Flow Diagram



NOTE

The icon shows the entire label of the nodes in the Process Flow Diagram and the icon shows the nodes navigation in the diagram.

6.2.3 Verifying the Execution Logs

You can access the execution logs to verify the details of the Run.

To verify the execution log, follow these steps:

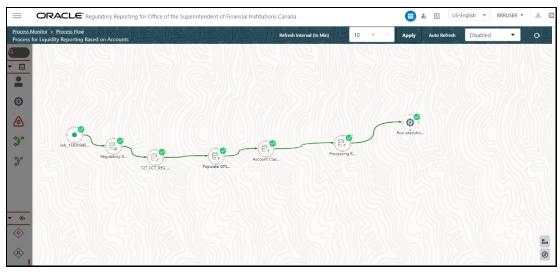
 In the Process Monitor window, click the required process flow ID. The process flow diagram is displayed in a new window. Double click on the required Sub Pipeline. The Execution Logs window is displayed.

Figure 56: Sub Pipeline



2. Click the required metadata to verify the execution log.

Figure 57: Execution Logs



3. Click the required node and the Activity window is displayed.

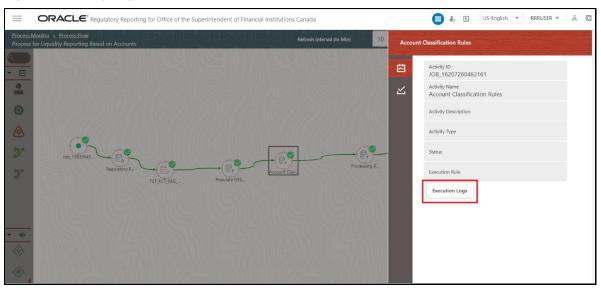


Figure 58: Activity Logs

4. Click **Execution Logs**. The Log File details page is displayed.

Figure 59: Log File

						🕑 Reset 🔍 View Log
* MIS Date	12/31/15		* Infodom FSDFINFO	Y	Wildcard Search C	ode
* Component	TRANSFORM DATA	V	Log File TRANSFORM DATA_16220	1262 🔻		
g File Conter	its					
						Downloa

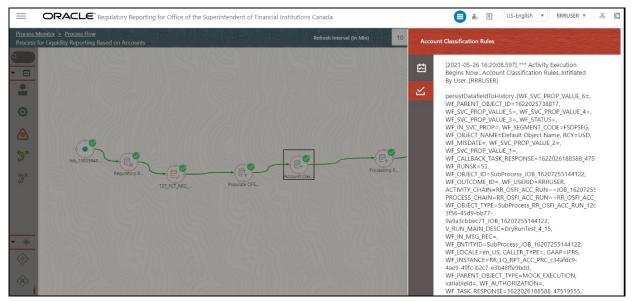
5. Select the Log File that you wish to view from the drop-down list and click View Log. The Run execution log details are displayed.

							🕒 Reset	Q View Log
* MIS Date	12/31/15		* Infodom	FSDFINFO		Wildcard S	earch Code	
* Component	TRANSFORM DATA	~	Log File	TRANSFORM DATA_16220262	•			
g File Conter	nts							
								Downlo

Figure 60: Run Execution Log

Alternatively, to verify the execution logs, click the icon in the Process flow diagram window. The log details of the Run execution are displayed in a new window.

Figure 61: Run Execution Logs



For detailed information about the complete functioning of the PMF, see the <u>Process Modelling</u> <u>Framework Orchestration Guide</u>.

7 Regulatory Data Extracts

This chapter provides information on creating and executing data extract definitions to export the regulatory reporting data into .csv files. It allows you to export data for a specific report, or cells and schedules. You can also export the data from a Derived Entity.

7.1 Create an Export Definition

To create an export definition, perform the following steps:

1. After logging into the OFSAAI applications page, navigate to **Regulatory Reporting for Office** of Superintendent of Financial Institutes Canada, and then select Regulatory Data Extracts.

Figure 62: Regulatory Data Export page

=	ORACLE: Regulatory Reporting for Office of the Superintendent of Financial Institutions Canada	•	ŝ	41	US-English	Ψ.	OFSAD 🔻	<u></u>
	Regulatory Data Export Summary of All Export Definitions					4	Create	
	Q Search					[Delete	
	No items to display.							
								-4
17///								

2. Click Create. The New Model Definition page is displayed.

Figure 63: New Model Definition page

	atory Reporting for Office of the Superi a	ntendent of Financial Institutions	🔢 🛍 US-English 🔻	▼ OFSAD ▼ &
Regulatory Data Export\ New Model Defin	ition		Cancel	Save
* Name	OSFI	Description	OSFI Data Model Creation	
Export Type	Reports -			
List of Reports			Q Search	
E2 Mortgage Loans Repo	rt			
N3 NON-MORTGAGE ANI	D MORTGAGE LOANS IN ARREARS			

3. Select or enter the required values for each field as follows.

Field Name	Description or Instruction
Name	Enter the name of the new model definition.
Description	Enter the new model definition description.
Export Type	Select the Export Type of the model from the dropdown list.
Report	This field is displayed only when the Export Type is either Schedule or Reporting Lines. Select the appropriate report from the drop-down list.
Search	Search for a specific object from the available list.

 Table 6: Model Export Definition Fields and Descriptions

- **4.** Select the required objects from the list by marking the checkbox.
- Click Save to complete the Export definition creation.
 On successful creation of the Export Definition, the Regulatory Data Export Definitions Summary page is displayed.

7.2 Edit and View an Export Definition

To edit and view an export definition, perform the following steps:

1. Click on the Export Definition that you wish to edit or view from the Export Definitions Summary page.

The Edit or View Export Definition page appears.

2. You can update the existing information if required and click **Save** to save the changes in the Export Definition or click **Cancel** to cancel if there is no modification in the Export Definition.

7.3 Delete an Export Definition

To delete an export definition, perform the following steps:

- 1. Select a Model Export Definition from the Export Definitions Summary page.
- 2. Click **Delete** to delete the Export Definition.

7.4 Executing the Regulatory Data Export Definition through Process Modelling Framework

After the Export Definition has been created, a process must be created in the Run Pipeline and must be executed through the Process Modelling Framework.

Report Statistics 8

This chapter provides information on the Execution Summary specific to various reports based on the selected jurisdiction and it also provides the drilldown details specific to a cell in a report.

You can generate and view the Report Statistics based on the Jurisdiction, the Entity and the Date of Execution of a report in the OFS REG REP OSFI Application.

Execution Summary of Reports and Drilldown 8.1

This section provides the procedure to generate and view the execution summary of a specific report based on the selected jurisdiction in OFS REG REP OSFI application.

To generate the execution summary of a report, follow this procedure:

 After logging into the OFSAAI applications page, navigate to Regulatory Reporting for Office of Superintendent of Financial Institutes Canada, select Report Statistics.

=	Canada	for Office of the Superintend	ent of Financial Institutio	ns 🛄 🗞 🖹 U	JS-English ▼ OFSAD ▼ み
	Report Dashboard Execution Summary of repor	s and drilldown			
	Q Search	вос	АВСРС	• 07/17/202	1
	✓ CONSOLIDATED MONTHLY BAL	ANCE SHEET - M4			
	Section I Current Execution:		Section I—Memo	o Items	
	No	data to display		No data to display	
				_	
		Cells with 0 value Cells with -ve value	_	value 📕 Cells with 0 value 📒 Cells with -ve va	lue
	Total cells populated:0/7	4	Total cells popula	ated:0/189	

Figure 64: Execution Summary Reports and Drilldown page

2. In the Execution Summary and Drilldown page, select the Jurisdiction, the Entity and the **Execution Date** of the report from the drop-down list.

The Execution Summary Report Statistics Result page is displayed.

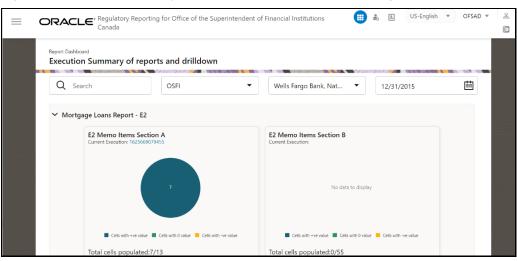


Figure 65: Execution Summary of Reports and Drilldown Results page

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9 Report Submission

This chapter provides an understanding of the report submission process.

Topics:

- <u>Report Submission: AgileREPORTER to Regulator</u>
- Edit Checks or Validity Check or Quality Checks
- <u>Report Templates to be used in AgileREPORTER</u>
- Supported Report Template Version and Activation Date

9.1 Report Submission: AgileREPORTER to Regulator

After OFSAA has prepared and hands off the data as required to Lombard Risk, the subsequent activities are performed within the AgileREPORTER.

Lombard takes care of the report format as per the regulatory requirement which may be eXtensible Business Reporting Language (XBRL), XML, Excel, Data, and so on.

9.2 Edit Checks or Validity Check or Quality Checks

The OFSAA UI carries out the report level or submission check comprising Edit Checks or Validity Checks, or Quality Checks as provided by the regulator.

9.2.1 Edit Check Validation Results

The Edit Check Validation results will be available in the following tables under the Atomic Schema after the batches are successfully executed:

1. DQ_RESULT_SUMM_MASTER: Detailed results

Figure 66: Detailed Results Screen

-	- + -	✓ ▼ ₹	M (/ 🏠 🤝		-# I	🖀 🛍 •					
	V_DQ_CHECK_I	D		V_DQ_SRC_	TBL		V_DQ_SRC_COL		N_R	N_I (V_ERR_VALUE	N_REC_FAIL_COUNT
▶ 1	DQ_ANA_ACCN	T_FINCL_MTC00	1_48	VW_ACCNT_	FINCL_	INSTMNT	- CBM_RECOURSE		76	1		0
2	DQ_ANA_ACCN	T_FINCL_MTC00	1_49 …	VW_ACCNT_	FINCL_	INSTMNT -	·· CBM_REFERENCE_RATE		76	63		63
3	DQ_ANA_ACCN	T_FINCL_MTC00	1_50 …	VW_ACCNT_	FINCL_	INSTMNT	SETTLEMENT_DATE		76	1		0
4	DQ_ANA_ACCN	T_FINCL_MTC00	1_51 …	VW_ACCNT_	FINCL_	INSTMNT	·· CBM_SUBORDINATED_DEBT		76	1		0
5	DQ_ANA_ACCN	T_FINCL_MTC00	1_52 …	VW_ACCNT_	FINCL_	INSTMNT	- SYNDICATED_CONTRACT_IDENTII	FIER	76	1		0
6	DQ_ANA_ACCN	T_FINCL_MTC00	1_53 …	VW_ACCNT	FINCL_	INSTMNT	·· CBM_REPAYMENT_RIGHTS		76	1		0
7	DQ_ANA_ACCN	T_FINCL_MTC00	1_54 …	VW_ACCNT_	FINCL_	INSTMNT	FAIR_VALUE_CHANGES_DUE		76	1		0
8	DQ_ANA_ACCN	T_FINCL_MTC00	1_55 …	VW_ACCNT	FINCL_	INSTMNT	·· REPORTING_IDENTIFIER		76	1		0
9	DQ ANA ACCN	T FINCL MTCOO	1 56 …	VW ACCNT	FINCL	INSTMNT	OBSERVED IDENTIFIER		76	1		0
10	DQ ANA ACCN	T FINCL MTCOO	1 57 …	VW ACCNT	FINCL	INSTMNT	·· CONTRACT_IDENTIFIER		76	1		0
							INSTRUMENT_IDENTIFIER		76	1		0
12	DQ ANA ACCN	T FINCL MTCOO	1 59 …	VW ACCNT	FINCL	INSTMNT	·· INTEREST_BATE		76	1		0
							NEXT_INTEREST_RATE_RESET		76	1		0
14	DQ ANA ACCN	T FINCL MTCOO	1 61 …	VW ACCNT	FINCL	INSTMNT	·· CBM_DEFAULT_STATUS_INSTMN	т	76	1		0
							DATE_OF_THE_DEFAULT		76	1		0
16	DQ_ANA_ACCN	T_FINCL_MTC00	1_63 …	VW_ACCNT	FINCL	INSTMNT	TRANSFERRED_AMOUNT		76	58		58
17	DQ ANA ACCN	T FINCL MTCOO	1 64 …	VW ACCNT	FINCL	INSTMNT	- ARREARS_FOR_INSTRUMENT		76	1		0
							·· DATE_OF_PAST_DUE		76	1		1
							CBM_TYPE_OF_SECURITISATION		76	1		0
							·· OUTSTANDING_NOMINAL		76	1		0
	DQ_ANA_ACCN								76	1		0
	1						·· ····-					-

2. DQ_AUDIT_TRAIL: Record level details

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	V_TABLE_NAME	V_COLUMN_NAME	DQ_CHECK_ID	TI	FAIL_	ERR_MSG	V_CHECK_NAME
▶ 1			DQ_ANA_ACCNT_FINCL_MTC001_29			ORA-0000: normal, successful completion	INFO
2			DQ_ANA_ACCNT_FINCL_MTC001_29 ~			ORA-0000: normal, successful completion	INFO …
3			DQ_ANA_ACCNT_FINCL_MTC001_30 -			ORA-0000: normal, successful completion	STATUS
4	VW_ACCNT_FINCL_INSTMNT	CONTRACT_IDENTIFIER ···	DQ_ANA_ACCNT_FINCL_MTC001_30 ~	· 7f ···		ORA-0000: normal, successful completion	
5			DQ_ANA_ACCNT_FINCL_MTC001_30 -			ORA-0000: normal, successful completion	INFO
6						ORA-0000: normal, successful completion	
7			DQ_ANA_ACCNT_FINCL_MTC001_30 -			ORA-0000: normal, successful completion	
8			DQ_ANA_ACCNT_FINCL_MTC001_30 ~			ORA-0000: normal, successful completion	
9			DQ_ANA_ACCNT_FINCL_MTC001_31			ORA-0000: normal, successful completion	
10	VW_ACCNT_FINCL_INSTMNT	INSTRUMENT_IDENTIFIER	e d'introduction de l'un eser l'eu	1.5		ORA-0000: normal, successful completion	
11			DQ_ANA_ACCNT_FINCL_MTC001_31			ORA-0000: normal, successful completion	
12						ORA-0000: normal, successful completion ~	
13			DQ_ANA_ACCNT_FINCL_MTC001_31			ORA-0000: normal, successful completion	
14			DQ_ANA_ACCNT_FINCL_MTC001_31 ~			ORA-0000: normal, successful completion ···	
15	VAVA ACCNT FINCE INCOMING	COM TYPE OF INCTRUMENT	DQ_ANA_ACCNT_FINCL_MTC001_32			ORA-0000: normal, successful completion ORA-0000: normal, successful completion	
17	VW_ACCNT_FINCE_INSTMINT	CBM_TYPE_OF_INSTRUMENT	DQ_ANA_ACCNT_FINCL_MTC001_32 DQ_ANA_ACCNT_FINCL_MTC001_32			ORA-0000: normal, successful completion ···	
18			DQ_ANA_ACCNT_FINCL_MITCOUT_32 **			ORA-0000: normal, successful completion ···	INFO ····
19			DQ ANA ACCNT FINCL MTC001 32			ORA-0000: normal, successful completion ···	INFO ···
20			DQ ANA ACCNT FINCL MTC001 32 -			ORA-0000: normal, successful completion ~	
20			DQ ANA ACCNT FINCL MTC001_32			ORA-0000: normal, successful completion	
1 21			10 Q. 14 (1664 (.) (1662 (17660 [.35			or an occo, normal, subcostar completion	011100

Figure 67: Record Level Details Screen

9.3 Report Templates to be used in AgileREPORTER

The report templates to be used in AgileREPORTER are listed in the following table.

Table 7: Report Templates for AgileREPORTER

Report or Schedule Name	Report Template
N3	N3_v1
E2	E2_v1

9.4 Supported Report Template Version and Activation Date

The AgileREPORTER contains the details of the Report template version and the activation date of the same. This can be accessed by selecting the Entity setup option in the Settings menu which enables you to Add, Modify, and Delete Entities.

Figure 68: AgileREPORTER Entity Setup

	Dashboard					Job Manag	er 565	XB	RL Checker 👻 hi rpadmin	¢	0
0		Show Deleter	d Returns Del	ete Return Log	Create New	Import adjustments	+ Submit	Ð	Entity Setup Form Variables	1	
Regulator :	RETURNS \$	VERSION \$	REFERENCE DATE \$	JOB STATUS	WORKFLOW CLVXAS	APPROVAL	EDITIONS	SUBMI			
Office of Superintendent of Financi V	E2 💭	1	12/31/2015	R ()	😜 🖪 🗌 🗌 🗆 🗆	Not Approved (0/1)	L Manage Editions		Validation patch	s	
Entity	E2 🗇	1	01/31/2016	R ()	🖓 🖪 🗌 🗌 🗖	Not Approved (0/1)	L Manage Editions			5	
WFBNA ~	E2 🕞	1	02/29/2016	R ()	😋 R	Not Approved (0/1)	L Manage Editions			s	
Form	E2 🕞	1	03/31/2016	B ()	😜 🖪 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions			s	
All 🗸	N3 🖵	1	12/31/2015	B ()	😜 🖪 🗌 🗌 🗌	Not Approved (0/1)	Le Manage Editions			5	1
Available date	<u>N3</u>	1	01/31/2016	R ()	😳 R 🗌 🗌 🗌	Not Approved (0/1)	Le Manage Editions			s	
All 🗸	<u>N3</u>	1	02/29/2016	B ()	😜 R 🗌 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions			s	
	<u>N3</u>	1	03/31/2016	B ()	😜 🖪 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions			s	
	4									- 1	

Click on a created Entity to access report templates according to version and the activation date, and assign the necessary privileges as required.

AgileREPORTER [®] Dashboard		Job Manager	565 XBRL Checker - hi rpadmin :
Entity and Return Administration			
	Entity Setup: OSFI2 (Office of Superintendent of Financial Inst	itutions)	
	Entity: A25 Delete		Expor
	Can be used for reporting?		Deleted Entities
	Edit Entity Assign Returns Variable		Hide 🛑 Sho
	Eur Entry Assign Returns Variable		Add new entity (
ECB ECR OSFI2	Return Valid from Valid to		
A25	A2 v1	Configure	
= ™ A25	A4 v1	Configure	
	B2 v1	Configure	
E 5 WEBNA	BH v1	Configure	
	C1 v1	Configure	
	C3 v1	Configure	
	E2 v1	Configure	
	E3 v1	Configure	
	GQ v1	Configure	
		Assign Cancel	

Figure 69: AgileREPORTER Entity Setup: OSFI

10 Maintenance

This chapter provides an understanding of the maintenance process for the regulatory templates.

Changes to the regulatory template are one of the most common and continuous activity. The following steps help to assess the impact (You can replace the measure, dimension for existing data warehousing configuration pack using the following process):

- 1. Choosing different execution as a final. After report verification, if the requirement is to change the execution, then you must visit <u>Process Execution Summary</u>.
- **2.** After making these changes you must refresh Derived Entities (Executing Batch to Resave Derived Entities). Then AgileREPORTER also must retrieve returns so that revised data is reflected on AgileREPORTER.
- **3.** If Executing Batch to Resave Derived Entities is not working, you can look for Batch Operation Log files. For file path, see the <u>OFS Analytical Applications Infrastructure Installation and Configuration Guide</u>.
- **4.** To apply the revised patch, download the LRM file from your local system, navigate to the AgileREPORTER server location, place the latest LRM file in the server location, and then execute this command./config.sh -a filepath/LRM_FILE_NAME.
- 5. To update the revised data warehouse configuration pack, perform the following instructions.
 - i. Navigate to Settings, select Administration, and then select Data Warehouse Integration.

AgileREPORTE	R [®] Dashboard					Job Manage	er 565	XB	RL Checker 👻 hi rpadmin	0 0
		Show Deleted	Returns Dele	te Return Log	Create New	Import adjustments		Ð	Users	۱î - T
Regulator :	RETURNS 0	VERSION 0	REFERENCE DATE \$	JOB STATUS	WORKFLOW CLVXA	APPROVAL S	EDITIONS	SUB	Security Settings Approval Workflow Templates	
Composition internet		11	06/30/2016	R ()	🛟 🖪 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Privilege Groups	inds
Entity		11	10/30/2020	00		Not Approved (0/1)	Manage Editions		User Groups Calendar	inds
A25 ~		11	10/31/2020	00		Not Approved (0/1)	Manage Editions		Form Schedule Binding	inds
Form	CRGB	10	06/30/2016	8 🔾	😋 🖪 🗌 🗌 🗌	Not Approved (0/1)	L Manage Editions		Calculation Engines	inds
All	· CAGS	9	06/30/2016	R ()	😋 🖪 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Config Package Binding	inds
Available date	CRSA	9	06/30/2016	80	🛟 🖪 🗌 🗌 🗌	Not Approved (0/1)	Le Manage Editions		Data Warehouse Integration	inds
All		8	06/30/2016	80	😋 🖪 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Submission Modules Proxy Settings	inds
	LB 🖵	5	10/31/2020	00		Not Approved (0/1)	Manage Editions		Email Notifications Settings	inds
	LR 🖵	5	06/30/2016	R ()	🛟 🖪 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		A Back	• inds
		5	01/31/2021	00		Not Approved (0/1)	Manage Editions		1 Duck	inds
	CRSD	5	06/01/2021	00		Not Approved (0/1)	Manage Editions		Variance	Trends
		5	06/30/2016	R ()	🛟 🖪 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Variance	Trends
	CVA T	4	06/30/2016	00		Not Approved (0(1)	Manage		Variance	Trends

Figure 70: Data Warehouse Integration

- ii. Click Add to add a contextual button.
- iii. Enter details of the contextual button.

Name: It is the text that must be displayed in the contextual button.

URL Pattern: Replace <<OFSAA_HOST>>, <<OFSAA_PORT>> and <<OFSAA_CONTEXT>> with host, port and web context of the environment where OFSAA is installed. Replace <<OFSAA_HOST>> with the name of information domain.

```
http://{ServerName}:{PORT}//OFSAA/drilldown/OSFI/${formCode}/${cellId}/${f
ormVersion}/${referenceDate}/${run}/${entityCode}?pgi=${Z_ordinate}
```

Example:

http://127.0.0.1:8080/OFSAA/drilldown/OSFI/\${formCode}/\${cellId}/\${formVer sion}/\${referenceDate}/\${run}/\${entityCode}?pgi={Z ordinate}

Use http or https depending on the protocol configured for OFSAA.

- **i.** Select an icon.
- ii. Click **Add** to save the details.

Figure 71: Adding Contextual Button

XBRL Checker - hi r	er 565	Job Manage			R [®] Dashboard	AgileREPORTE
		×	ton	Add Contextual Butt		Data Warehouse Integration
				Name:	Contextual Buttons	OFSAA_EBA
ICON ¢	DESCRIPTION				EDIT	OFSAA_ECB80710
				Linked to:	No records found.	OFSAA_EC880611
		· •	×	AGILE REPORTER *	bbA	OF SAA_OSFI_LIQUIDITY
				URL Pattern:		
				Built in Variables:		
		lame} = \${formCode}	≡ S{entityCode} ≡ S{entityN	≡ \${cellid}		
		ferenceDate} \equiv S(regulatoryPrefix}	\equiv S{referenceDate} \equiv S{prv_ref	≡ S{formVersion}		
		nate) = \$(run)	\equiv S{Y_ordinate} \equiv S{Z_ordin	≡ \${tableCode}		
				Description		
				Pick an icon		
				2		
		Cancel	bbA			

6. After the data ware configuration pack is updated, the Lombard Configuration pack must reflect this.

• See <u>AgileREPORTER user documentation</u> for details.

11 Troubleshooting Guidelines

This section covers troubleshooting guidelines for the users of Oracle Financial Services Regulatory Reporting Integration with AgileREPORTER, hereafter called Integration.

Integration users provide the data inputs through the OFSDF where data is loaded, processed and results are made available for reporting purposes. The integration package then makes this data available in required formats to AgileREPORTER. In AgileREPORTER, this data is then aggregated according to the reporting requirements, and end-users view this from AgileREPORTER User Interfaces designed for the Viewing or Editing of this aggregated data.

This section provides detailed guidelines on how to troubleshoot the data issues tracing back the data flow from AgileREPORTER.

Topics:

- Prerequisites
- <u>Troubleshooting Use Cases</u>

11.1 Prerequisites

It is assumed that you can log in and see the following menus and respective reports in AgileREPORTER.

Figure 72: AgileREPORTER

AgileREPORTER	Dashboard					Job Manage	er 565	XBRL Checker	👻 hi rpadmin	۵	0
		Show Deleted	Returns De	elete Return Log	Create New	E Import adjustments		Export	Retrieve	Return	
Regulator : Office of Superintendent of Financi: V	RETURNS \$	VERSION \$	REFERENCE DATE \$	JOB STATUS	WORKFLOW CLVXA	APPROVAL S	EDITIONS	SUBMISSION FILE	ANALY	ISIS	м
Onice of Superintendent of Pinance +	E2 🖵	1	12/31/2015	R ()	😳 R	Not Approved (0/1)	Manage Editions		Variance	Trends	07
Entity	E2 🖵	1	01/31/2016	R ()	😋 R 🗌 🗌 🗌	Not Approved (0/1)	Manage Editions		Variance	Trends	0
WFBNA V	E2 🖵	1	02/29/2016	R ()	😳 R	Not Approved (0/1)	Manage Editions		Variance	Trends	01
Form	E2 🖵	1	03/31/2016	R ()	😋 R	Not Approved (0/1)	Manage Editions		Variance	Trends	0
E2 v1 🗸	4				14 <4 1 >>	⊨: 100 ∨					•
Available date											

This means configurations activities for the AgileREPORTER and OFSAA are completed. Set up activities for Entity is done and reports templates, as shown above, are available for viewing. Report Names shown in the figure are for illustration purpose and the actual name depends on the integration pack licensed.

11.2 Troubleshooting Use Cases

This section provides information about the various troubleshooting use cases in AgileREPORTER.

Topics:

- Unable to Generate Report
- Data Unavailable in AgileREPORTER
- Data Available in AgileREPORTER but Not as Expected

11.2.1 Unable to Generate Report

If you are unable to generate reports, meaning none of the derived entities referred to in the report has rows for the LE or date combination, then you must see the Installation Manuals of AgileREPORTER or OFSAA Integration pack for further instructions and steps to be followed.

If the process mentioned in Installation Manual is correctly followed and still report list is not available, then you are requested to log in the bug or service request with Lombard Risk.

11.2.2 Data Unavailable in AgileREPORTER

This is a use case where you are logged in to AgileREPORTER and selected particular regulatory reports for an appropriate entity and As of Date, but unable to generate the report.

11.2.2.1 Fetching Null or Zero Values

AgileREPORTER is showing either Zero or Null values. It indicates that Derived Entities has data (however, all required filer conditions are not matching and resulting in zero value output) or Derived Entity does not have data at all.

ſ	A Show Import Log Export to File - Adjustments - Submit	Live Valid	ation 🏼 🏷 Valida	te Now	 Workflow 	\Box	Return Source	s 🔻 Reports	
				Sh	now Scaling 🌑	Edition	s 07/11/2021 22:0	1:29 #1	
			Re	sidenti	ial Mortgages, To	tal			
	on D - Mortgage Loans Report - Entire Portfolio (Canada) (cont'd) mortization		Individually Insured		Portfolio Insured		Uninsured	Non- residential Mortgages	
									\neg
()	(i) 0 to ≤ 5 years	3100	NULL	3101	NULL	3102	NULL		-
	(ii) > 5 to ≤ 10 years	3103	NULL	3104	NULL	3105	NULL		
	(iii) > 10 to ≤ 15 years	3106	NULL	3107	NULL	3108	NULL		
	(iv) > 15 to ≤ 20 years	3109	NULL	3110	NULL	3111	NULL		
	(v) > 20 to ≤ 25 years	3112	NULL	3113	NULL	3114	NULL		
	(vi) > 25 to ≤ 30 years	3115	NULL	3116	NULL	3117	NULL		
	(vii) > 30 to ≤ 35 years	3118	NULL	3119	NULL	3120	NULL		
	(viii) > 35 to ≤ 40 years	3121	NULL	3122	NULL	3123	NULL		
	(ix) Over 40 years	3124	NULL	3125	NULL	3126	NULL		
	Total	3418	NULL	3419	NULL	3420	NULL		_
(b)									_
	(i) 15 years or fewer						F	3130 NU	_
	(ii) > 15 to ≤ 20 years						-	3131 NU	_
	(iii) > 20 to ≤ 25 years						F	3132 NU	_
	(iv) Over 25 years							3133 NU	_
(-)	Total							3421 NU	_
(C)) Other	3140	NULL	3141	NULL	3142	NULL	3143 NU	LL

Figure 73: Fetching Null Values

Figure 74: Fetching Zero Values

of 1	A Show Import Log Export to File - Adjustments - Submit	🛃 Liv	e Validation	۱ 🐻	/alidate Now	✓ Worl	kflow 🖵	Return Sources	✓ Reports	⇒ Ar
					Show	w Scaling	Edition	s 07/07/2021 21:15:24	1 #2	-
	(ii) > 50% to ≤ 65%	1				7081	NULI	1		
	(iii) > 65% to ≤ 75%					7082	NULL			
	(iv) > 75% to ≤ 85%					7083	NULL	1		
	(v) Over 85%					7084	NULL			
	Total					2354	NULL			
(C)	Other	7264	NUL	L 7265	NUL		NULL	1		
Amo	ortization							1		
(a)	Residential Mortgages							1		
	 0 to ≤ 5 years 	2970	NUL		NUL			1		
	(ii) > 5 to ≤ 10 years	2972		0 2973	NUL					
	(iii) > 10 to ≤ 15 years	2974		L 2975	NUL	_				
	(iv) > 15 to ≤ 20 years	2976		L 2977	NUL					
	(v) > 20 to ≤ 25 years	2978		0 2979	NUL	_				
	(vi) > 25 to ≤ 30 years	7087	NUL		NUL	_				
	(vii) > 30 to ≤ 35 years	7089	NUL		NUL	_				
	(viii) > 35 to ≤ 40 years	7091	NUL	L 7092	NUL	_				
	(ix) Over 40 years	7093		L 7094	NUL	_				
	Total	2355		0 2358	NUL	.L.		-		
(b)	Non-residential Mortgages						NULI	-		
	(i) 15 years or fewer	_				7095	NULL			
	(ii) > 15 to ≤ 20 years	_				7096	NULL			
	(iii) > 20 to ≤ 25 years	_				7097	NULL			
	(iv) Over 25 years	_				7098	NULL			
	Total	_			NUL	2357	NULL			
	Other IOUSANDS OF DOLLARS)	7267		0 7268	NOL	L 7269	NOLL	1		

You must validate as:

- 1. Derived Entity has data:
- a. Execute the Derived Entity or Materialized views to check if Derived Entity has data or not.
- **b.** If Derived Entity or materialized view has data but not showing in AgileREPORTER, you must log a Bug or Service Request with Lombard Risk.
- 2. Derived Entity does not have data:
- **a.** Execute the Derived Entity or Materialized views to check if Derived Entity has data or not.
- **b.** If Derived Entity does not have data, then check the Business Metadata excel for a given schedule.
- **c.** Check Worksheet titled *Derived Entity* in Business Metadata excel. Get all the derived entities for a given schedule.
- **d.** Get dataset for each derived entity.
- **e.** Execute datasets in OFSAA FSDF Atomic Schema to check if data is available for a given dataset joins.
- **f.** If data is available in dataset queries, you must log a Bug or Service Request with AgileREPORTER.
- g. If data is not available in the dataset, then check if the selection of Entity, Available Date (as of date) is appropriate and required executions are available. If Entity, As of Date and Run executions are correct and still data is not available, then you must log a Bug or Service Request with <u>My Oracle Support</u>.

11.2.3 Data Available in AgileREPORTER but Not as Expected

This use case where you can reference data for a required cell of a schedule in AgileREPORTER; however, the value shown differs from the expected value.

Let us take the following example to illustrate the steps to be followed. This refers to Schedule Page 1 from the E2 report of OSFI.

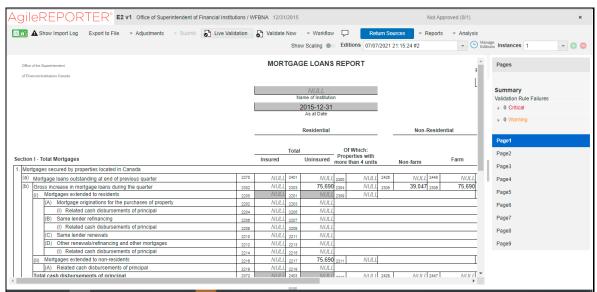


Figure 75: Schedule Page 1 from E2 Report

You can Drill down for each cell to check the details of data as to what is included in the aggregation. To Drill down, click the value of a particular cell, and it is shown highlighted. It shows the OFSAA data lineage icon on clicking as shown in Figure 76.

Figure 76: Drill Down OFSAA Icon

Agile	REPORTER [®] E2 v1 Office of Superintend	dent of Financial Institutions / V	VFBNA 12/31	/2015				Not Ap	proved (0/1)
III A	Show Import Log Export to File 👻 Adjustments 👻 Si	ubmit Live Validation	Validate	Now	- Workflow	, p	Return So	urces - Reports	 Analysis
				Sho	w Scaling 🌘	Editions	07/07/2021	21:15:24 #2	- L K
			MOR	TGA	GE LOANS		т		
								Non-Reside	
				Total		Of Wh			
Section I -	Total Mortgages							Non-farm	
			NULL						
		2302	💦 NULL		75690	direct	cell edit	39,047 2306	
		2200	NULL						
			DRILLDOWN						
		2204	DRILLDOWN					×	

Make sure that you are logged into to OFSAA infrastructure before clicking the OFSAA DRILLDOWN icon.

- If you are not already logged in, clicking here opens the OFSAA infrastructure login window. Log in
 using appropriate credentials and come back to Report Portal and click the same Data Lineage icon
 again.
- If you are already logged in to OFSAA Infrastructure, the Drilldown first page opens.

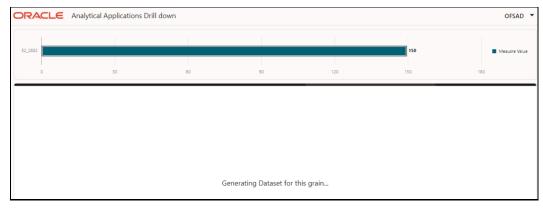


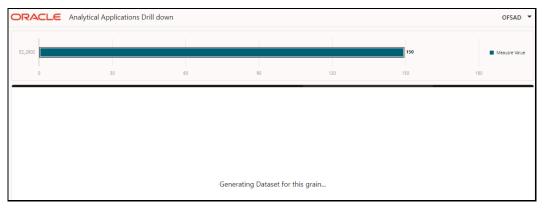
Figure 77: AgileREPORTER Drill down

The top pane of this screen shows the following information which helps to connect the AgileREPORTER aggregated data to OFSAA references.

- 1. Run Execution ID: This refers to the OFSAA Execution ID chosen for a given report.
- 2. Calendar Date: This refers to AS OF DATE selected for a given report.
- 3. Legal Entity: This refers to the OFSAA Legal Entity for which the report is generated.
- 4. **Reference Identifier:** This is the cell reference for which data Drill down or lineage is being checked.

To refer the measure values, scroll rightwards using the horizontal scroll bar at the bottom. On the extreme right, measures are displayed as shown in Figure 78:

Figure 78: Measure Values



Only measure values are hyperlinked indicating that they can be drilled down further. On clicking the amount, second-level Drill down shows the lowest granularity data available for a given cell reference.

Topics:

- Using Drill down with Data Lineage View
- Drill down View is Unavailable

11.2.3.1 Using Drill down with Data Lineage View

Data Analysts or you can then compare these accounts and their respective monetary amounts with expected values. You can check the following:

- 1. All required accounts are shown in aggregation.
- 2. Unwanted accounts are not included in the aggregation.
- 3. Measures or Monetary amounts at account granularity are as expected.

Any deviation from expectations can be then checked back for:

- 1. If the measure is stage pass through, then validate using T2T to verify if stage data is as expected or must be corrected.
- **2.** If the measure is processed, then validate using T2T to verify processing measure is correctly moved to the result area.
- **3.** If reclassified hierarchies are showing unexpected values, check Rules and source hierarchies of rules. This use case needs close verification to ensure that all source hierarchies have required values or Rule sequence which can lead to overwriting the values.
- **4.** If all the source data is as expected and the result area is now showing unexpected output, then log a Bug or Service Request with <u>My Oracle Support</u>.

11.2.3.2 Drill down View is Unavailable

If the second block does not show any data, then data analysts or you are advised to see the Dataset worksheet of Business Metadata.

Figure 79: Drill down Data Unavailable

ORACLE	OPRSR060C020 0 Image: Column Selector Image: Column Selector							
		10 2	10 3	D 4	0	50 6	Ops Risk Indicator Value	
							Column Selector	
No items to disp	lay.							

There can be a few reasons why the drill down screen does not show the data:

- 1. Internet connection is timed out or broken down in this case clicking Data Lineage on AgileREPORTER results in a drill down page. To rectify this, re-login to OFSAA infrastructure and AgileREPORTER.
- **2.** Drill down data view works after Metadata is published using OFSAA Infrastructure to validate if Metadata is properly published or not.
- **3.** If Metadata is published and the drill down screen still does not show the data, then start with Derived Entity code shown at the beginning of the drill down screen. This Derived Entity code is available even if data is unavailable.

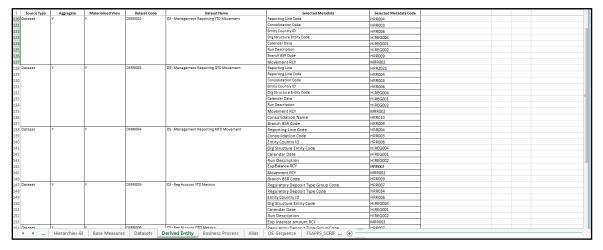
4. Using this Derived Entity code, data analysts are advised to see the OFSAA Business Metadata document with the worksheet name as *Derived Entity*. Sample Business Metadata excel is shown in the following Figure 80:

Figure 80: Business Metadata-1

1 Derived Entity Code	Short Description	Long Description	Source Type	Aggregate	Materialised View	Dataset Code	Dataset Name	Selected Metadata
120 DERROO2	DE - Management Reporting YTD Movement	DE - Management Reporting YTD Movement	Dataset	Y	Y	DSRR002	DS - Management Reporting YTD Movement	Reporting Line Code
121								Consolidation Code
122								Entity Country ID
123								Org Structure Entity Code
124								Calendar Date
123 124 125 126								Run Description
126								Branch BSR Code
127								Movement RCY
128 DERROO3	DE - Management Reporting QTD Movement	DE - Management Reporting QTD Movement	Dataset	Y	Y	DSRR003		Reporting Line
129								Reporting Line Code
130								Consolidation Code
131								Entity Country ID
129 130 131 132 133								Org Structure Entity Code
133								Calendar Date
134 135								Run Description
135								Movement RCY
136								Consolidation Name
137								Branch BSR Code
138 DERR004	DE - Management Reporting MTD Movement	DE - Management Reporting MTD Movement	Dataset	Y	Y	DSRR004	DS - Management Reporting MTD Movement	Reporting Line Code
139								Consolidation Code
140								Entity Country ID
141								Org Structure Entity Code
142								Calendar Date
143								Run Description
144								Eop Balance RCY
145								Movement RCY
146								Branch BSR Code
147 DERROOS	DE - Reg Account YTD Metrics	DE - Reg Account YTD Metrics	Dataset	Y	Y	DSRR005	DS - Reg Account YTD Metrics	Regulatory Deposit Type Group Code
148								Regulatory Deposit Type Code
149								Entity Country ID
150								Org Structure Entity Code
151								Calendar Date
152								Run Description
153								Eop Interest amount RCY
	DE- Res Account OTD Metrics	DE - Reg Account OTD Metrics	Dataset	Y			DS - Res Account OTD Metrics	Regulaton: Deporit Type Group Code
• • • … H	lierarchies-BI Base Measures Datasets	Derived Entity Business Process Alias	5 DE-Seque	nce FSAPPS	SCRIF (+) :	4		F

5. By referring to the Business Metadata document, you can get complete information on Derived Entity such as dataset, Fact tables, measures, hierarchies defined under particular Derived Entity.

Figure 81: Business Metadata-2



The Dataset ANSI Joins provides valuable information on how various entities are joined or linked together. By executing these Joins, you can confirm if data is available for given filters and conditions. If data is fetched using Dataset Joins and Data Lineage does not show data, you must log a Bug or Service Request with <u>My Oracle Support</u>.

OFSAA Support

Raise a Service Request (SR) in <u>My Oracle Support (MOS)</u> for queries related to the OFSAA applications.

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