Oracle® Financial Services

Metadata Browser User Guide

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1 Preface

The Metadata Browser component in Oracle Financial Services Analytical Applications (OFSAA) allows you to view and analyze all aspects of the metadata used in the OFSAA platform and applications. It provides extensive browsing capabilities of the metadata and helps in tracking the impact of changes to the metadata and trace through to the source of originating data.

Topics:

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit:

- My Oracle Support
- Oracle Accessibility Learning and Support if you are hearing impaired.

Audience

This guide is intended for: Business Analysts who have to view metadata lineage.

Additional Resources

This section identifies additional resources for the OFSAA Metadata Browser. You can access the online documentation for the OFS AAI 8.1.x from the Oracle Help Center (OHC).

- OFSAAI Administration Guide OFS Advanced Analytical Applications Infrastructure (OFS AAAI) Application Pack Installation and Configuration Guide
- OFS Analytical Applications Infrastructure User Guide
- OFS Analytical Applications Infrastructure Process Modeling Framework Orchestration Guide

To find additional information about how Oracle Financial Services solves real business problems, see our website at www.oracle.com/financialservices.

Conventions Used

The following table lists the conventions used in this guide.

Convention	Meaning
Italics	• Names of books, chapters, and sections as references • Emphasis
Bold	• The object of an action (menu names, field names, options, button names) in a step-by-step procedure • Commands typed at a prompt • User input
Monospace	• Directories and subdirectories • File names and extensions • Process names • Code sample, including keywords and variables within the text and as separate paragraphs, and user-defined program elements within the text
<Variable>	Substitute input value

Acronyms Used

The following table lists the acronyms used in this guide.

Conventions	Description
ALM	Asset Liability Management
AMHM	Attributes Members Hierarchies Module
ANSI	American National Standards Institute
API	Application Programming Interface
ARIMA	Auto Regressive Integrated Moving Average
ASCII	American Standard Code for Information Interchange
AW	Analytical Workspace
BA	Business Analysts
BI	Business Intelligence
BMM	Business Metadata Management
BP	Business Processor
CF	Cash Flow
CSV	Comma Separated Values
DBA	Database Administrator
DEFQ	Data Entry Forms and Queries
DMP	Window or Memory Dump
DQ	Data Quality
DSN	Data Source Name
ELT	Extract Load Transform
EPM	Enterprise Performance Management
ES	External Scheduler
ESIC	External Scheduler Interface Component
ETL	Extract Transform Load
EWMA	Exponentially Weighted Moving Average

Conventions	Description
FTP	File Transfer Protocol
GARCH	Generalized Auto Regressive Conditional Heteroskedasticity
GMV	General Market Variable
HTML	HyperText Markup Language
HTTP	Hypertext Transfer Protocol
Infodom	Information Domain
IP	Internet Protocol
JDBC	Java Database Connectivity
JSON	JavaScript Object Notation
JVM	Java Virtual Machine
LDAP	Lightweight Directory Access Protocol
LHS menu	Left-hand side menu
MDB	Microsoft Access Database
MOLAP	Multidimensional Online Analytical Processing
NE	Non-Editable
OBIEE	Oracle Business Intelligence Enterprise Edition
ODBC	Open Database Connectivity
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OHC	Oracle Help Centre
OLAP	Online Analytical Processing
PDF	Portable Data Format
PFT	Profitability Management
PR2	Process Run Rule framework
RAC	Real Application Cluster
RDBMS	Relational Database Management System
RHS	Right Hand Side
RRF	Run Rule Framework
SA	System Administrator
SFTP	Secret File Transfer Protocol
SID	System ID
SMS	Security Management System
SQL	Structured Query Language
T2T	Table to Table
TBD	To be Deleted
TFM	Technical File Maintenance
TNS Name	Transparent Network Substrate Name
TP	Transfer Pricing
URL	Uniform Resource Locator
VaR	Value at Risk
XML	Extensible Markup Language

2
Getting Started

This section gives an introduction to OFS Model Management and Governance and the requirements to use the application.

Topics:

About this Guide

This guide has information to use the Metadata Browser. The further sections in this guide provide information for the Metadata Browser Dashboard, Catalog of Objects, and Utilities.

For other products such as OFS AAI, see the Additional Resources section.

Recommended Environment

For information about browsers where MDB can be best viewed, see the OFS Analytical Applications 8.1.x Technology Matrix.

Prerequisites

The following are the prerequisites to use the Metadata Browser UI functions:

- To access the Metadata Browser, your user role must be mapped to the **SCR_MDB** function.
- • To use the Object to Application Mapping feature, you must be mapped to the role METADMN (Publish Metadata), which is mapped to the function **Map Metadata** (METMAP).

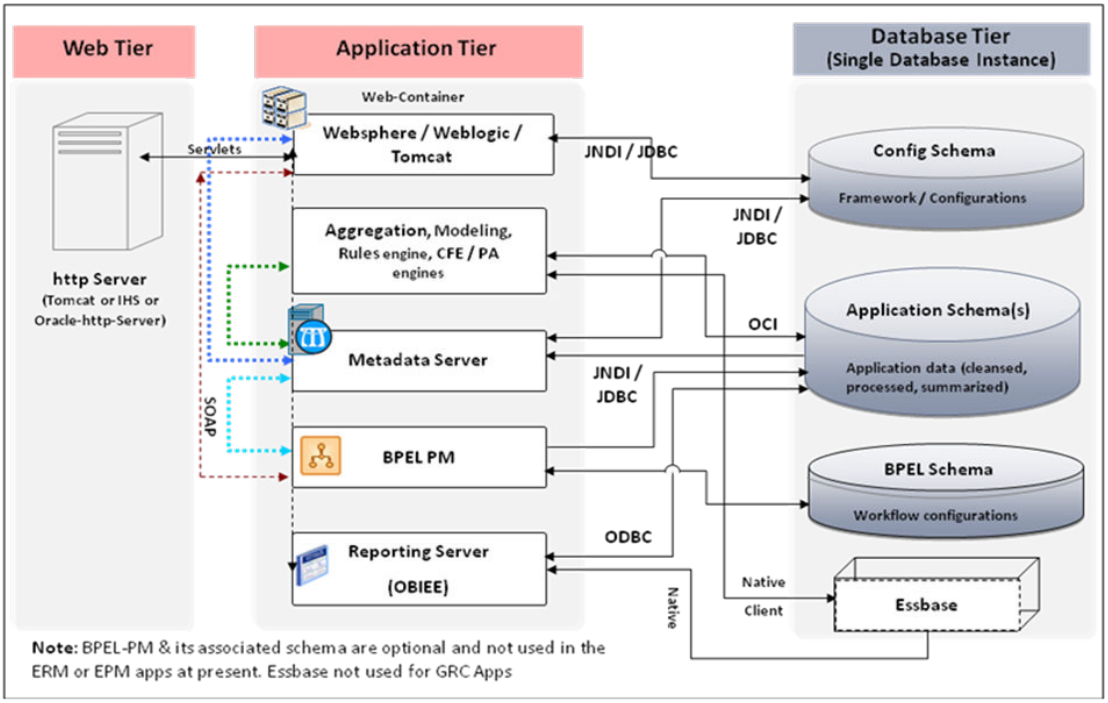
For more information on mapping functions to a role, see the Function - Role Map section in the Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide.

3

Metadata Browser Overview

This chapter 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 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.

Figure 3-1 The Metadata Server Component with Other OFSAA Components



Topics:

Access the Metadata Browser

You can access the Metadata Browser component in a web browser when your System Administrator (SA) installs the Oracle Financial Services Analytical Application and configures the required user groups and roles. The SA provides the link through which you can open the OFSAA login window in a web browser in the following URL format:

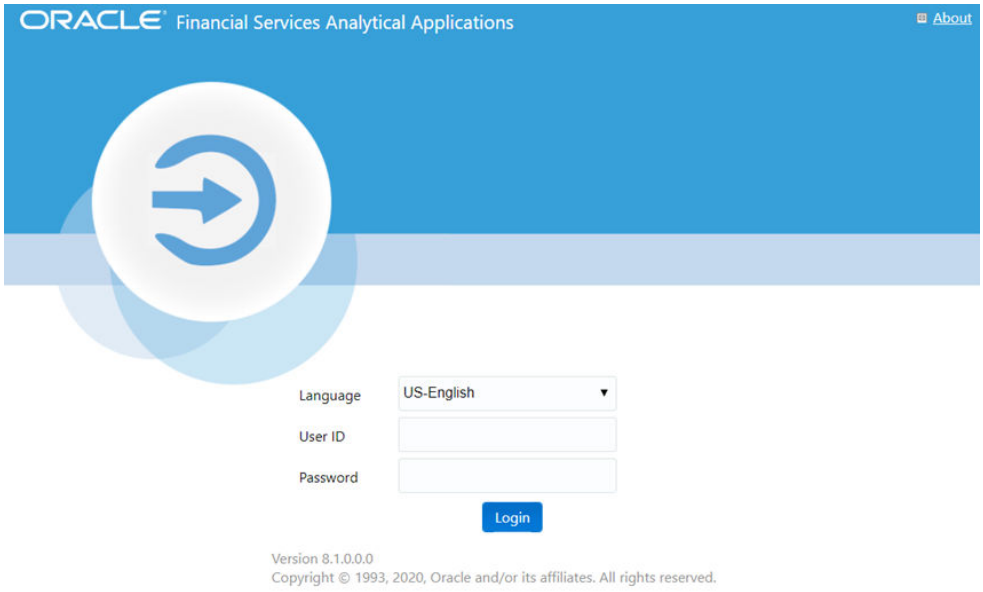
```
http(s): <IP Address of the Web Server > :<servlet port>/<context name>/
login.jsp.
```

You can also log in to the application with the hostname instead of the IP address.

To log in to OFSAA and access the metadata browser, follow these steps:

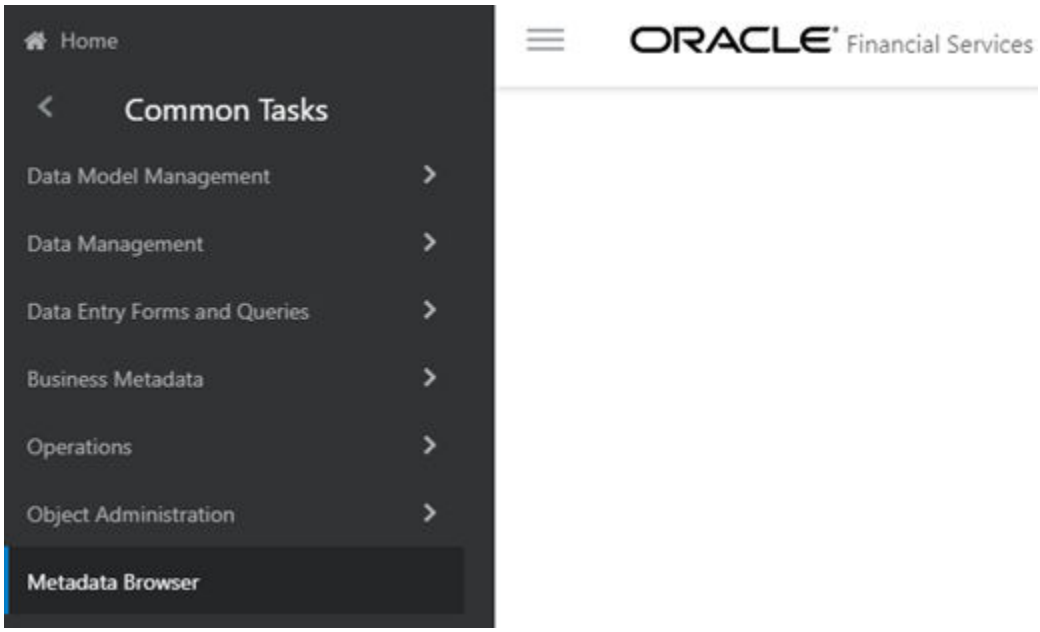
1. 1. Enter the OFSAA URL in a web browser. The *OFSAA Login* window is displayed.

Figure 3-2 The OFSAA Login Window



2. Select the required language from the **Language** drop-down list. The applicable language login window is displayed.
3. Enter the **User ID** and **Password** and click **Login**. For first-time login, enter the password provided by the System Administrator and a prompt is displayed to change the password. For details on how to change a password, see the Changing Password section in the OFSAAI User Guide.
4. Click the **Application** icon from the header to display the applications in the Tiles menu.
5. Click **Application**. For example, Financial Services Enterprise Modeling. The Navigation Tree displays a menu.

Figure 3-3 The Metadata Browser in Common Tasks Menu

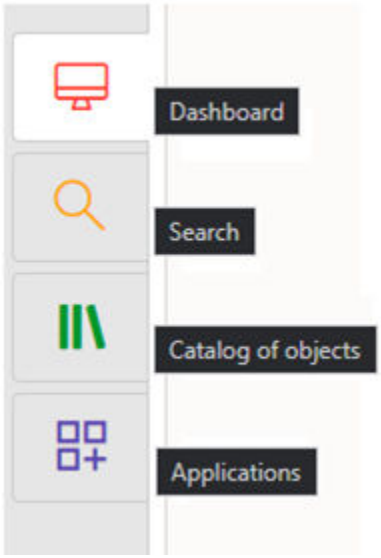


6. Click **Common Tasks**, and then click **Metadata Browser** to display the Metadata Browser in a separate window.

   To display the Metadata Browser UI, your user role must be mapped to the relevant function. See the Prerequisites section for information about roles.

7. Click the tabs shown in the following illustration to open the required windows.

Figure 3-4 The Metadata Browser Tabs

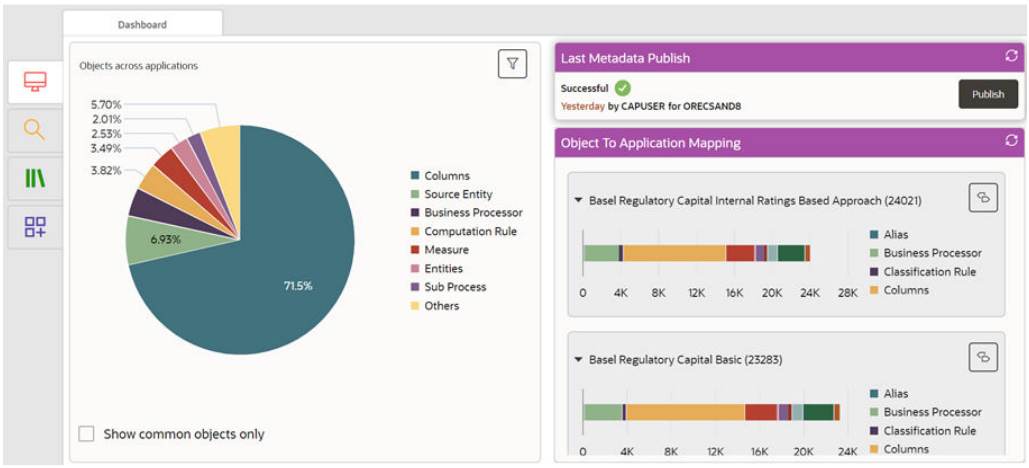


Dashboard

The Dashboard presents an overview in the form of graphical representations of the distribution of all the objects in the instance and across applications installed on it. It helps identify the sharing of metadata across applications and generate a report. You can do the following from the Dashboard:

- View Metadata Sharing Information Across Applications
- Metadata Publish
- Object to Application Mapping

Figure 3-5 The Metadata Browser Dashboard

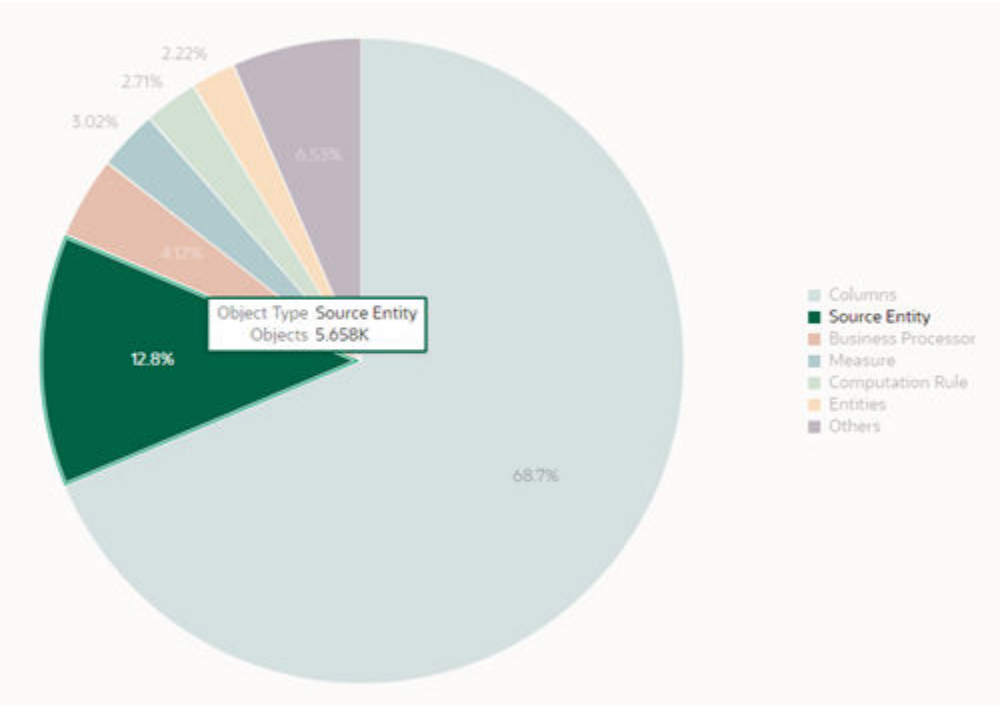


The Dashboard displays a pie chart of the distribution of metadata objects across all applications in percentage.

To use the pie chart, follow these steps:

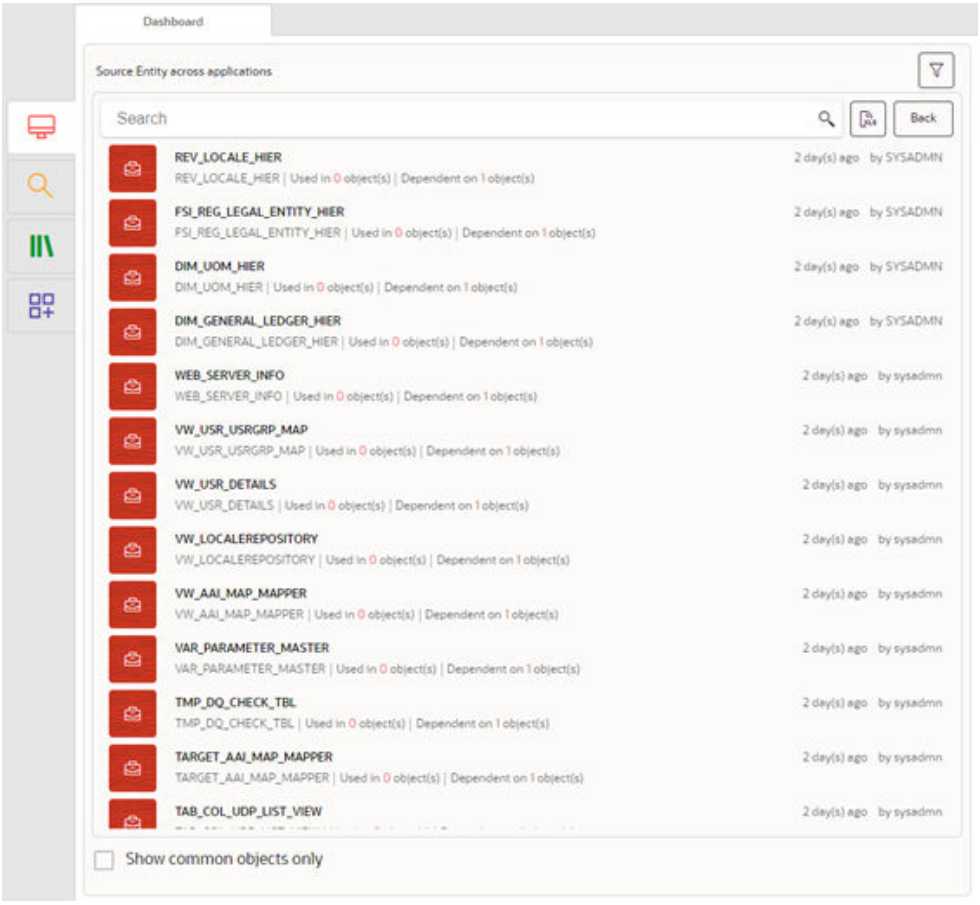
1. Click the **Dashboard** icon in the *Metadata Browser* window to display the *Dashboard* view. The *Dashboard* view is the default view of the Metadata Browser.
2. Mouse-over a slice in the pie chart to view the Object Type it represents and the number of objects in it.

Figure 3-6 Mouse-over to View the Object Type and Number of Objects



3. Click a slice to view the list of objects represented by it as shown in the following illustration:

Figure 3-7 View the List of Objects from the Pie Chart



4. In the list of objects pane, you can view all the objects of the selected object type with details such as object name, object code, the object used in the number of objects, the object dependent on the number of objects, and audit details such as the time since the object was last modified and the user who last modified the object.

   In this pane, you can do the following:

   a. Click the object name link to view its details. For more information, see Viewing Object Details.

   b. Click the **MS Excel** icon to export the metadata details of the selected object type to an MS Excel file.

   c. Click **Back** to go back to the previous view.

   d. Select **Show common objects only** to display the objects that are commonly used in all the applications.

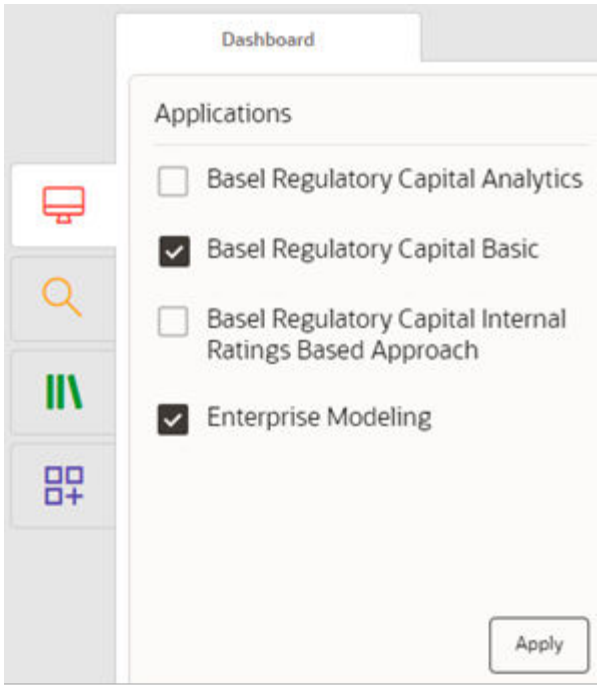
   e. Click the **View Applications Drawer** icon to View the Metadata Sharing Information Across Applications.

View the Metadata Sharing Information Across Applications

To select the required applications for which you want to view the Metadata sharing information and view it, follow these steps:

1. Click the **View Applications Drawer** icon to open the Applications drawer.

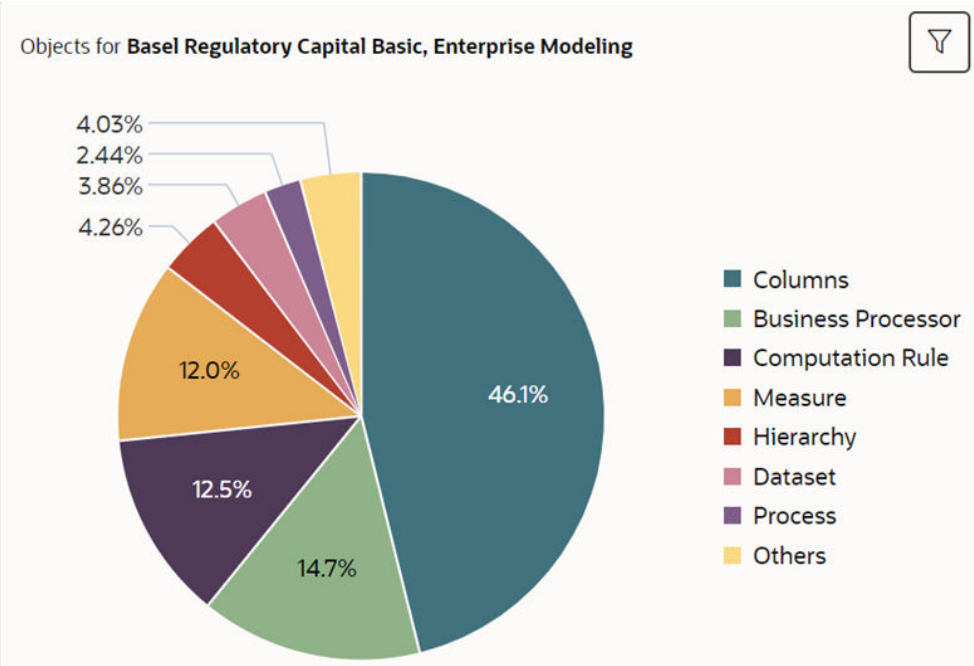
Figure 3-8 View the Applications Drawer



2. Select the required applications for which to display the objects, and click **Apply**. The objects specific to the selected application is displayed in the list of objects pane.

   For example, if you select Basel Regulatory Capital Basic and Enterprise Modeling, objects specific to the two applications is displayed:

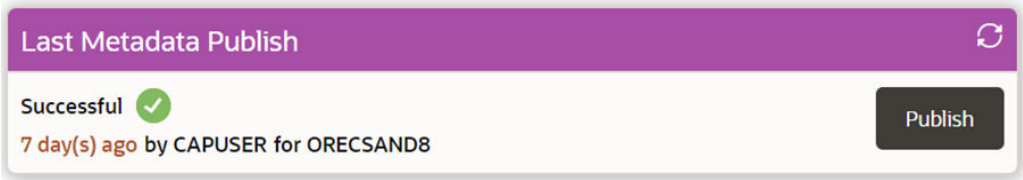
Figure 3-9 Example of Metadata for Selected Applications



Metadata Publish

The *Last Metadata Publish* pane displays details such as the time elapsed since the metadata was last published, the user who published the Metadata, and the Information Domains to which the metadata was published.

Figure 3-10 Last Metadata Publish Information



To view and refresh the metadata in the Metadata Browser, publish it. To publish the metadata, follow these steps:

1. On the *Last Metadata Publish* pane, click **Publish**. The available Information Domains are displayed in a drawer window.
2. Select the required Information Domains and click **OK**.

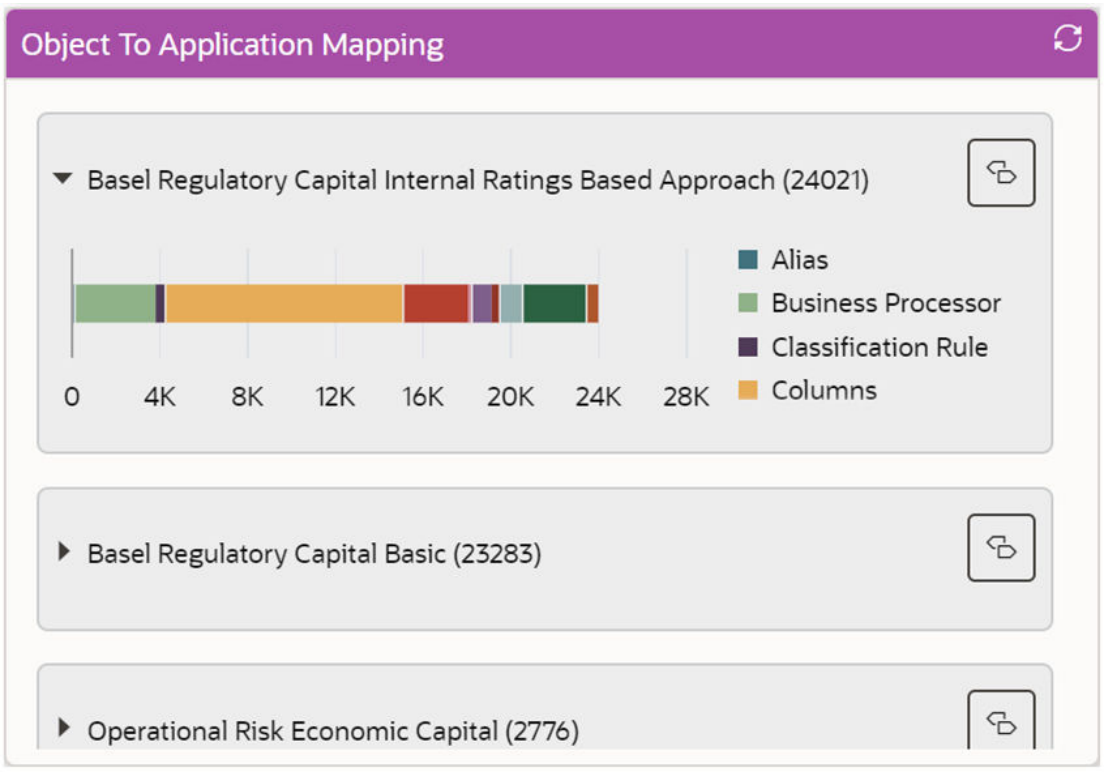
   You can also use the command line utility `MDBPublishExecution.sh` to publish the metadata. For more information, see the Command Line Utility to Publish Metadata in the Metadata Browser section.

Object to Application Mapping

The *Object To Application Mapping* pane allows you to map the metadata objects to applications so that you can view the information for metadata across applications where it is used. Mapping of metadata objects implicitly maps its dependent objects to the selected application recursively. You can also remove the mapping of objects from applications. However, it does not remove the mapping of its dependent objects.

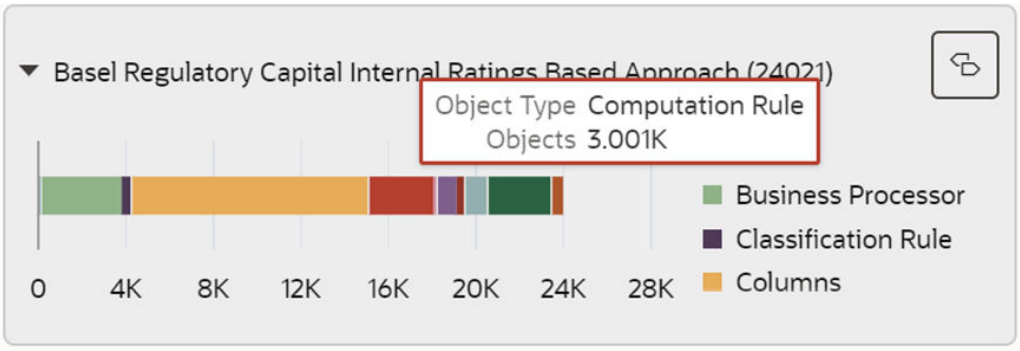
You can use a command line utility to map objects to applications. For more information, see the Command Line Utility for Object Application Mapping in the Metadata Browser section.

Figure 3-11 The Object to Application Mapping Pane



The *Object To Application Mapping* pane displays all the available applications with the number of objects mapped to it displayed within brackets. It shows a graphical representation of the distribution of various object types in each application. Each object type is represented by a color code on the graph. Mouse-over a color to display the **Object Type** and the number of **Objects** mapped to the application.

Figure 3-12 Object Types Represented by a Color Code

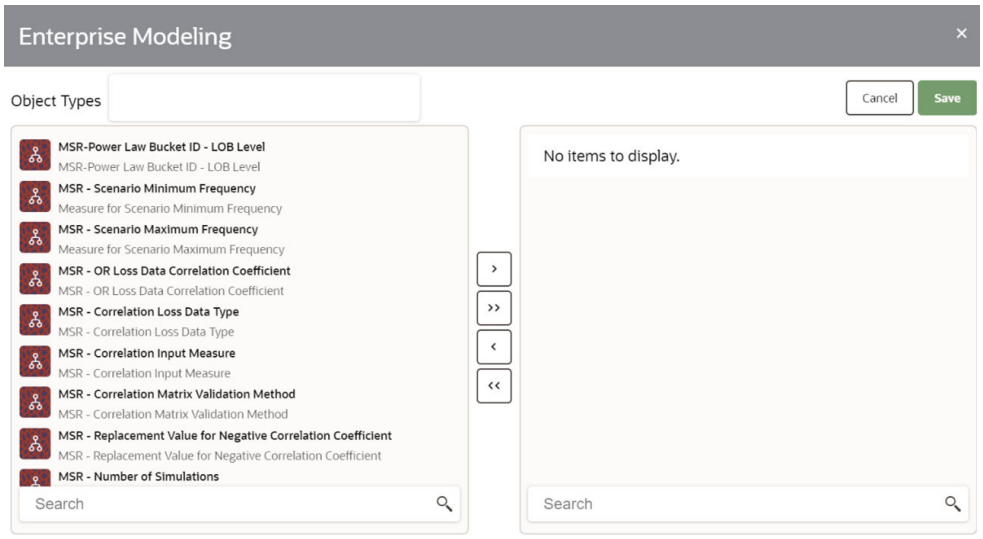


To map the Objects to Application:

1. In the *Object To Application Mapping* pane, click corresponding to the application to which you want to map objects. The Object to Application Mapping is displayed.

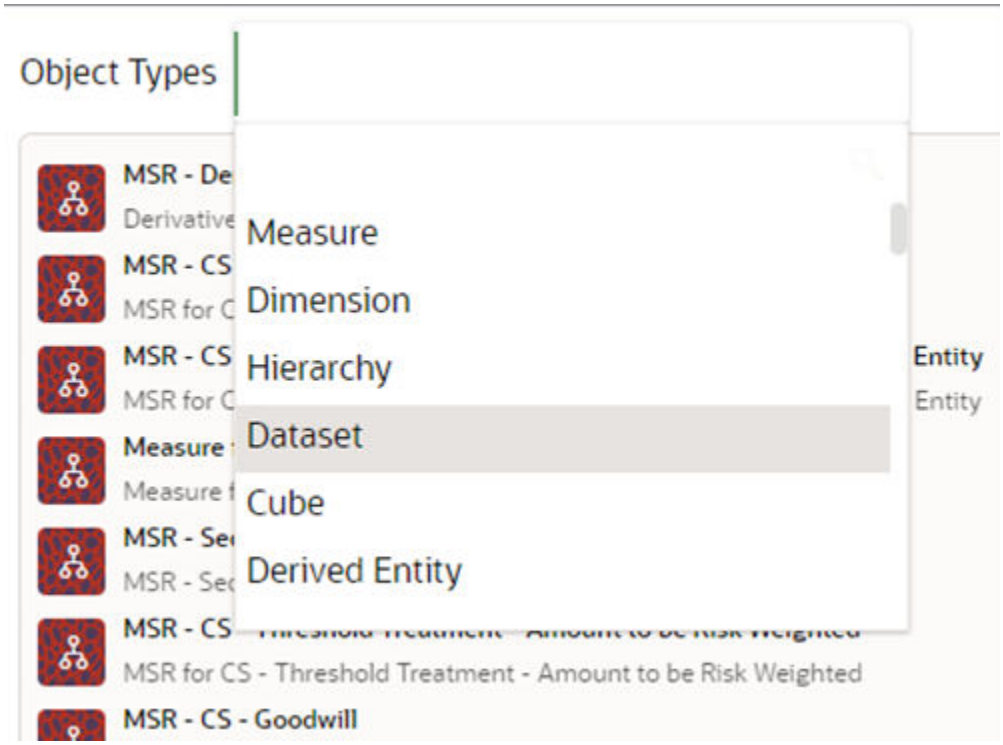
   By default, the objects of the Measure object type are displayed.

Figure 3-13 Map Required Object Types to Application



2. Click the **Object Types** field and select the required object types from the list. The list displays all the available Objects for the selected Object Types.

Figure 3-14 Object Types List



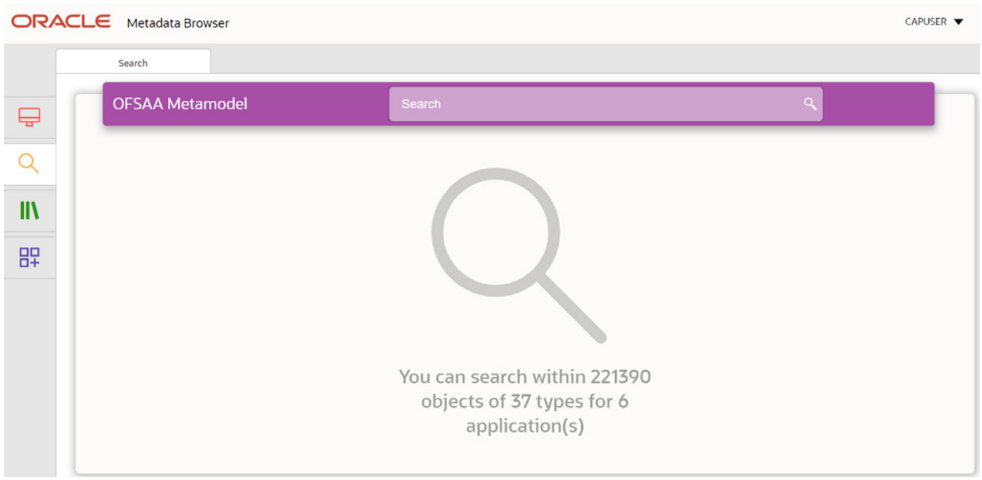
3. Map or Unmap objects as required.
   a. To map objects, select the required object in the available section and click the **Move** icon to move it to the selected section to the right. Click the **Move All** icon to map all the objects of the selected Object Types.
   b. To unmap objects, select the required object in the selected section and click the **Remove** icon . Click the **Remove All** icon to unmap all the objects that are selected for mapping.
4. Click **Save**. All the dependent metadata objects are mapped to the selected application recursively.

Search

The Search window enables you to search for objects within object types that exist in applications. To use the Search window, follow these steps:

1. Click the **Search** icon in the Metadata Browser window to display the Search window.

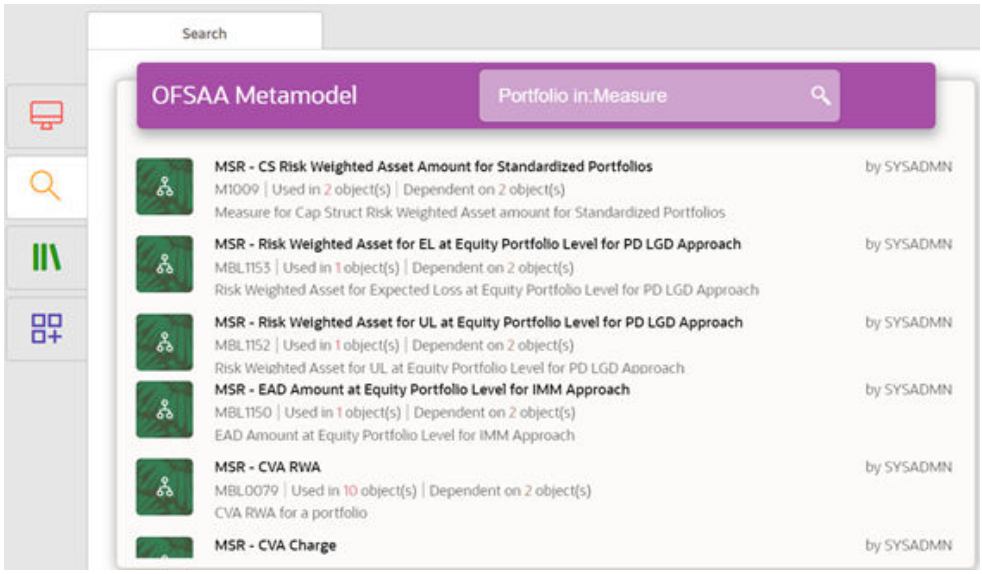
Figure 3-15 The Metadata Search Window



2. Enter the keyword for the search in the Search field. Autocomplete displays suggestions, which you can select by using the down arrow from the keyboard or by using the mouse. You can search for an object in the Measure, Dimension, and Hierarchy object types by adding "in:<Object Type>" to the keyword.

   For example, if you enter "Portfolio" in the **Search** field, it displays all objects that have the word "Portfolio" in their Name, Short Description, and Long Description. However, if you want to search for only Measure objects, enter **Portfolio in:Measure**. This narrows down the search to objects of the Measure type, as shown in the following illustration:

Figure 3-16 Example of a Metadata Search



3. Click the Object Name link to view its details. For more information, see View Object Details.

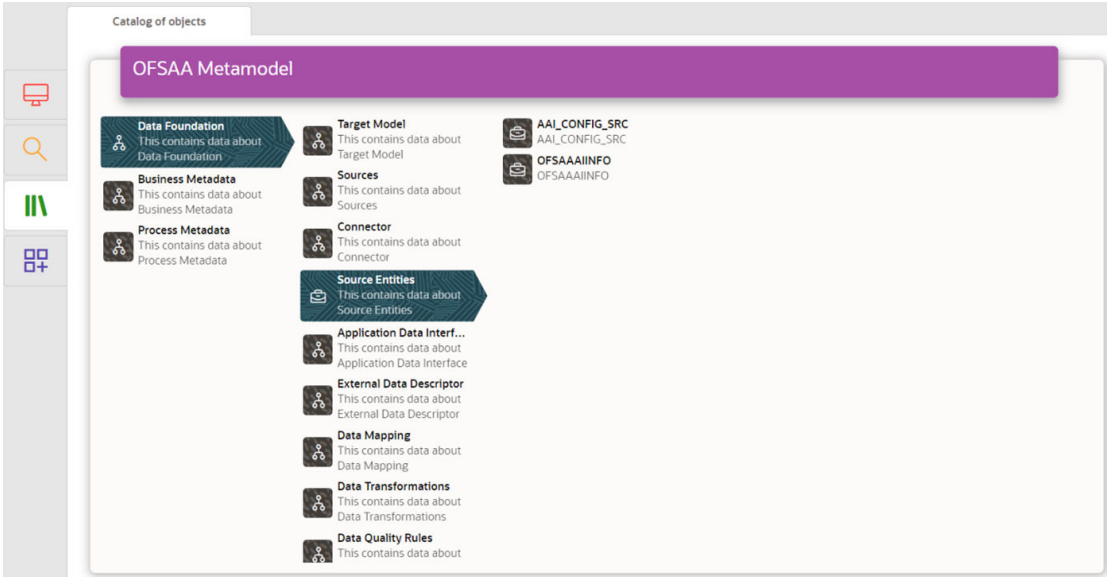
Catalog of Objects

Metadata in OFSAAI is largely classified into Data Foundation, Business Metadata, Process Metadata, and Reporting Metadata. The Catalog of Objects is a drill-down system, which expands and displays the details of the objects in the Metadata.

You can view details of the following from the Catalog of Objects:

- Data Foundation Metadata
- Business Metadata
- Process Metadata
- Reporting Metadata

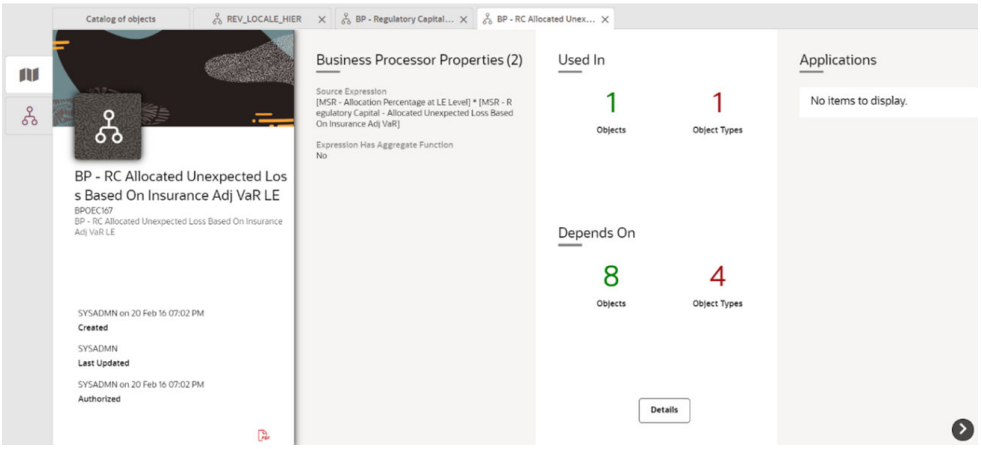
Figure 3-17 The Catalog of Objects



To use the Catalog of Objects window, follow these steps:

1. Click the **Catalog of Object** icon in the Metadata Browser window to display the *Catalog of Objects* window.
2. Click an object classification to display objects within it. For example, click Data Foundation to display objects within in such as Target Model and Sources. Click an object to drill down and view object details within it in a new tab with details of the selected Object.

Figure 3-18 View Details of the Selected Object



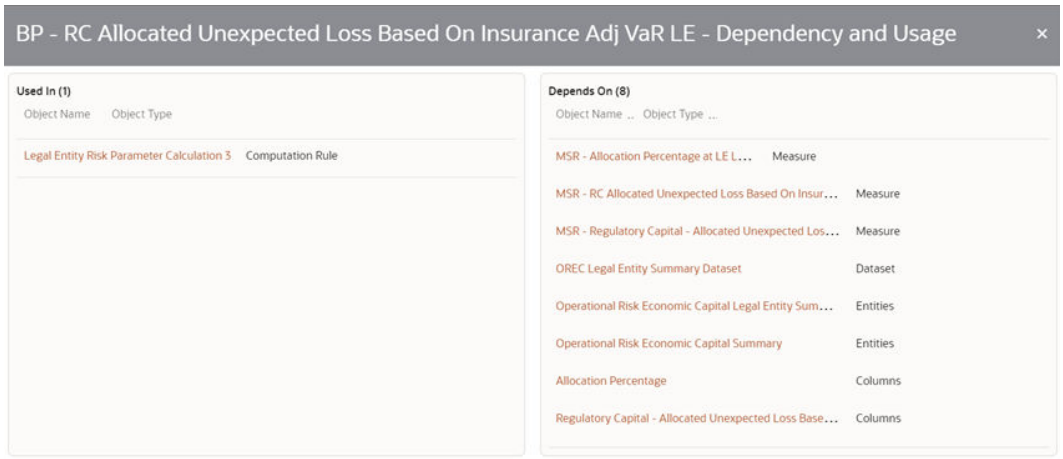
The **Details** view provides the following details:

- Object basic details such as object name, object code, and description.
- Audit information such as created by, created date, last modified by, last modification date, authorized by, and authorization date.
- Object-specific properties.
- Dependency details of the child objects.
- Use of the current object in the higher-order objects.
- Use of object in the various Applications.

3. Click the **Export to PDF** icon to export metadata details of a particular object to a PDF file.
4. Click the **Previous** and **Next** buttons to scroll horizontally through the different object properties displayed in the window.

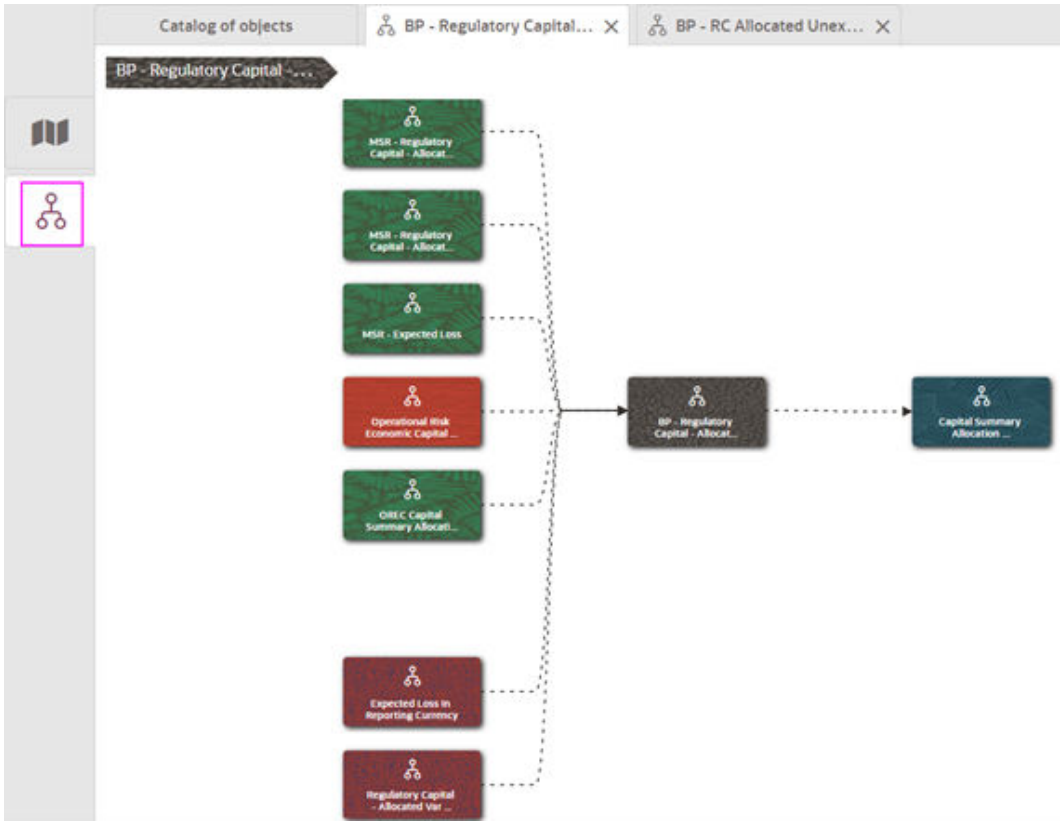
   The **Used in** section displays the number of Objects (parent or higher) and Object Types in which the selected object is used. The Depends on section displays the number of Objects and Object Types that depend on the selected object.
5. Click **Dependency** to display the **Used In** and **Depends on** Objects in the <*Object Name*> - *Dependency context* window:

Figure 3-19 The View Dependency Details Context Window



6. Mouse over the **Object Name** and **Object Type** column heading and click the **Sort Ascending** icon or the **Sort Descending** icon to sort the **Object** and **Object Types** in the ascending or descending order respectively. Click the link for a particular Object Name to open its details in a new tab. Close the context window to view the details.
7. Click the **Show Dependency**tab to display the dependency and use the mapping drill-down chart.

Figure 3-20 View the Dependency and Use Mapping Drill-Down Chart



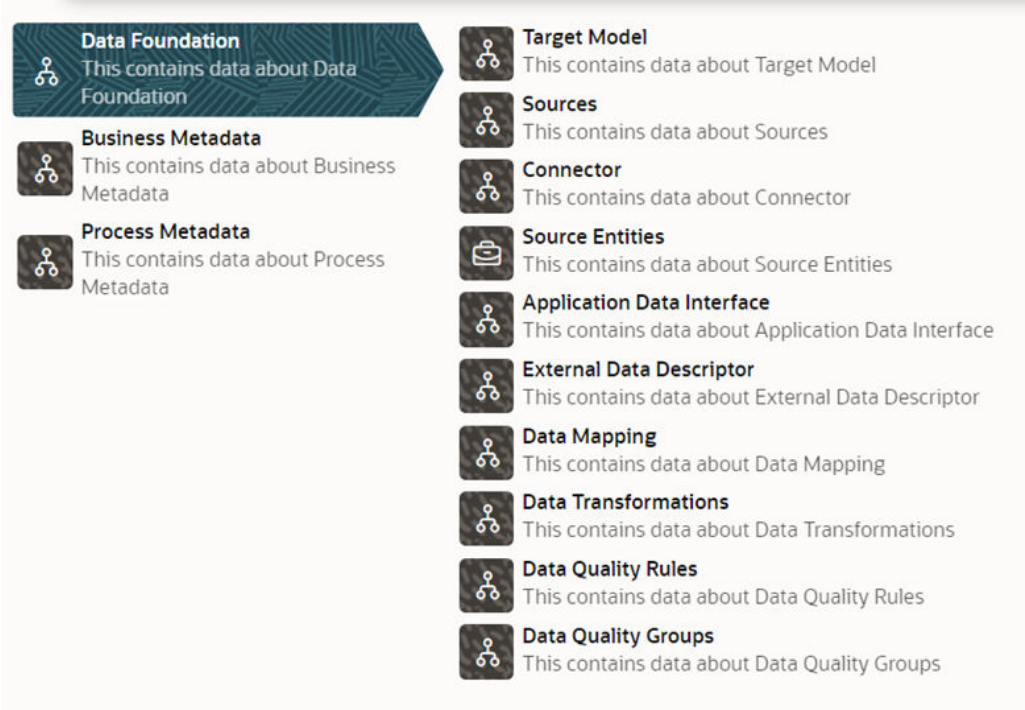
8. Click any object to trace the source of the originating data. View the data flow of the application and understand the use of objects within the application.

Data Foundation Metadata

The Data Foundation Metadata consists of the following object types:

1. Target Model
2. Sources
3. Connector
4. Source Entities
5. Application Data Interface
6. External Data Descriptor
7. Data Mapping
8. Data Transformations
9. Data Quality Rules
10. Data Quality Groups

Figure 3-21 The Data Foundation Metadata List



The following subsections provide details for the object types within Data Foundation Metadata.

Target Model

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Target Model** to view a list of objects.

2. Click the required object.

   The Entity specific details are explained in the following table:

Option	Description
Entity Properties	Displays the table name, its short description, and long description.
Attributes	Displays the columns present in the entity.
Table Classification	Displays the classification of the entity and its description.
Depends On	The only dependent object type of an Entity is Column. Click Details to view the list of the Depends On objects. For more information, see the Dependency window.
Used In	The Object Types in which an Entity is used are Alias, Dataset, Measure, Business Processor, Hierarchy, Data Mapping, and so on. Click Details to view the list of the Used In objects. For more information, see the Dependency window.
Applications	Displays the applications in which the entity is used.

Sources

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Sources** to view a list of objects.
2. Click the required data source.

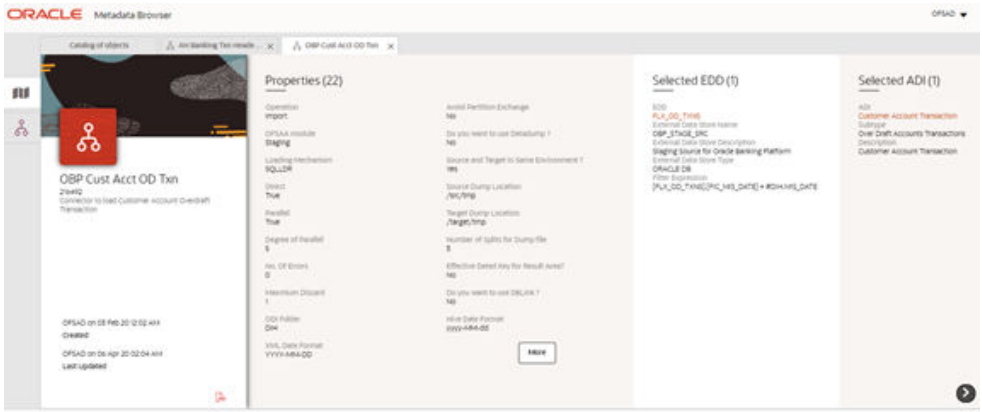
   The Source-specific details are explained in the following table:

Option	Description
Source Properties	Displays the properties of the source such as Type, JDBC URL, Schema name, and Database name.
Depends On	NA
Used In	The object types in which a Source is used are Source Entity, Data Mapping, and Data Quality Rule. Click Details to view the list of the Used In objects. For more information, see the Dependency window.
Applications	Displays the applications in which the Source is used.

Connector

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Connector** to view a list of objects.
2. Click the required connector.

Figure 3-22 Select the Connector Data Source



The Connector specific details are explained in the following table:

Option	Description
Connector Properties	Displays the properties specified for the connector.
Selected EDD	Displays the EDD associated with the connector. Click the EDD name to view the details.
Selected ADI	Displays the ADI associated with the connector. Click the ADI name to view the details.
Mapping	Displays the mapping details between source and target for the connector. Click **More** to view the Mapping Details in a tabular format. Click the **Export to MS Excel** icon to export the Mapping Details to an Excel file.
Used In	Displays the object and object types in which Connectors are used. Click **Details** to view the list of the **Used In** objects.
Depends On	Displays the dependent Objects and Object Types for Connectors. Click **Details** to view the list of the **Depends On** Objects.
Applications	Displays the applications in which the Connectors are used.

Source Entities

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Source Entities** to view a list of objects.
2. Click the required object.

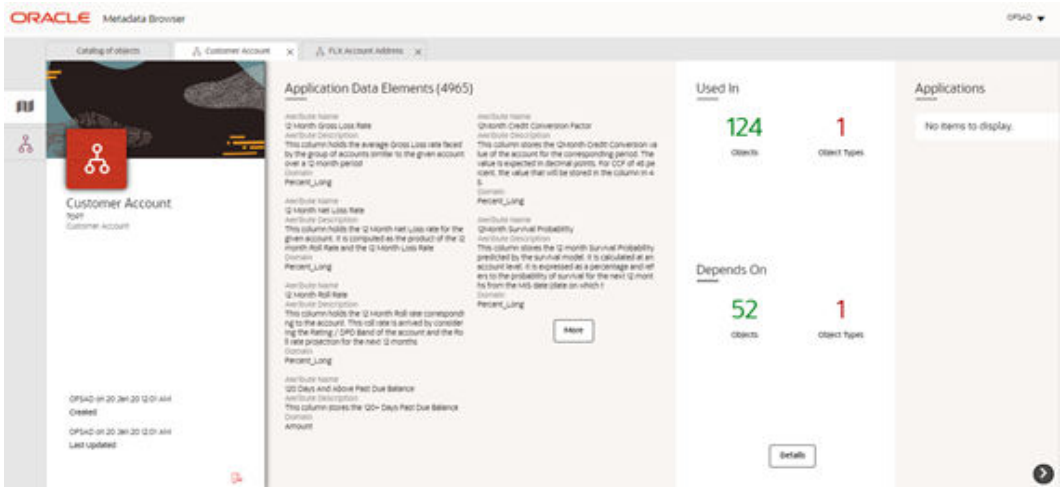
   The Source Entity specific details are explained in the following table:

Option	Description
Properties	Displays the properties of the Source Entity such as Short Description and Long Description.
Source	Displays the name of the Database Source to which it belongs.
Attribute Details	Displays the attribute details of the Source Entity. **Note:** This field does not apply to OFS Regulatory Reporting Applications.
Depends on	The only dependent object type for Source Entity is Database Source. Click **Details** to view the Source. For more information, see the Dependency window.
Used in	NA
Applications	Displays the applications in which the Source Entity is used.

Application Data Interface

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Application Data Interface** to view a list of objects.
2. Click the required ADI.

Figure 3-23 Select the ADI Data Source



The ADI specific details are explained in the following table:

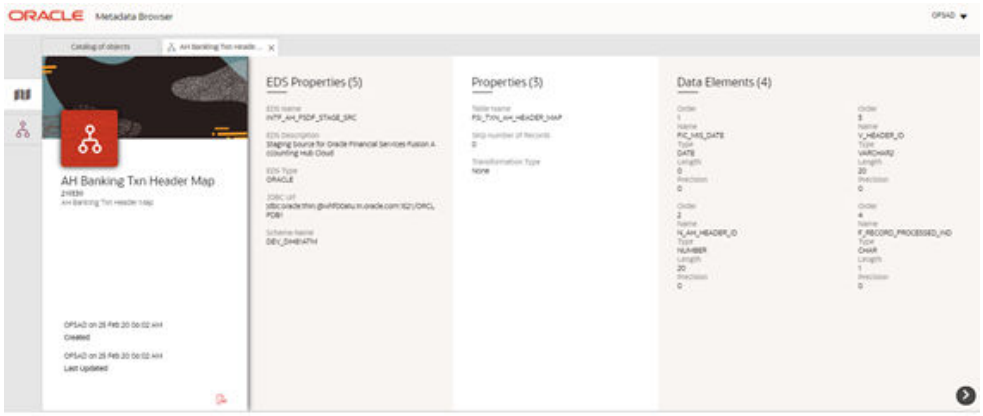
Option	Description
Application Data Elements	This section displays the properties specified for the ADI.
Used In	Displays the object and object types in which the selected ADI is used.

Option	Description
	Click **Details** to view the list of the **Used In** objects.
Depends On	Displays the Objects on which the selected ADI is missing. Click **Details** to view the list of **Depends On** Objects.
Applications	Displays the applications in which the selected ADIs are used.

External Data Descriptor

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **External Data Descriptor** to view a list of objects.
2. Click the required external data descriptor.

Figure 3-24 Select the EDD Data Source



The external data descriptor details are explained in the following table:

Option	Description
External Data Descriptor	This section displays the properties specified for the EDD. Under each EDS, it has all EDDs. When you click a particular EDD, it displays the definition of the EDD, with the name and Description displayed at the top. The Properties sections display two rows, EDS Properties, and EDD Properties.
Data Elements	The Data Element sections display all the fields/columns that are part of this EDD.
Used In	Displays the object and object types in which EDD is used. Click **Details** to view the list of the **Used In** objects.
Depends On	Displays the dependent Objects and Object Types for EDD. Click **Details** to view the list of the **Depends On** Objects.
Applications	Displays the applications in which the EDDs are used.

Data Mapping

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Data Mapping** to view a list of objects.
2. Click the required mapping job.

   If the properties of the T2T and T2F definitions have null values, then the Metadata Browser does not display the details.

   The Data Mapping details are explained in the following table:

Option	Description
Definition Details	Displays the Source Name and the Definition Sub Type (T2T, T2F, or F2T).
Join Conditions and Filters	Displays the ANSI Join, Joins, and Filters that have been used in creating the Data Mapping definition.
Mapping Details	Displays the Source Entity, Source Attribute, Target Entity, Target Attribute, and the User Defined Properties (UDPs) in case of T2T definition. • Click **More** to view the Mapping Details in a tabular format. Click the **Export to MS Excel** icon to export the Mapping Details to an Excel file. • Select the UDPs which need to be displayed in the Mapping Details table. • Click the **View User Defined Properties** icon and select the required UDPs, and apply. This will help you identify the mappings applicable to the specified UDPs. • Click the **View Selected User Defined Properties** icon. Only the selected UDPs will be displayed.
Depends on	The object types that are used in creating a Data Mapping definition are Entity, Columns, Data Source, Source Entity, and so on. For the Data Mapping definition with associated DQ rules, it additionally displays the DQ Rules. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The object types in which a Data Mapping definition is used are Run and Process. Click **Details** to view the list of the **Used In** Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the Data Mapping definition is used.

Data Transformations

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Data Transformations** to view a list of objects.

2. Click the required rules to convert data.

   The rules to convert data details are explained in the following table:

Option	Description
Transformation Details	Displays the transformation type and its value. The transformation types are `PLC_STORED_PROCEDURE` and `PLC_EXTERNAL_LIBRARY`.
Depends on	The only dependent object type for Data Transformation is Entity. Click **Details** to view the list of the **Depends On** objects. For more information, see the Dependency window.
Used In	The object types in which a Data Transformation is used are Rule and Process. Click **Details** to view the list of the **Used In Objects**. For more information, see the Dependency window.
Applications	Displays the applications in which the data transformation is used.

Data Quality Rules

1. From the **Catalog of Objects** tab, click **Data Foundation**, and then click **Data Quality Rules** to view a list of objects.
2. Click the required data quality rules.

   The data quality rule-specific details are explained in the following table:

Option	Description
Specific Properties	Displays the specific properties of the data quality rule definition such as Check Type, On Source, Table, Column, Substring, Position, Length, and Filter.
Referential Integrity Check	Displays the details of different checks used in the data quality rule definition such as Range Check, Date Length Check, Specific Value Check, List of Value/Code Check, Null Value Check, Referential Check, Duplicate Check, and so on. **Note:** This field applies only to OFS Regulatory Reporting Applications.
Check Type	Displays the details of different checks used in the data quality rule definition such as Range Check, Date Length Check, Specific Value Check, List of Value/Code Check, Null Value Check, Referential Check, Duplicate Check, and so on.
Depends on	The dependent object types for Data Quality Rules are Entity and Column. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	Displays the data quality group in which the data quality rule is used. If the DQ rule is used in a Data Mapping definition, it displays the Data Mapping object under this grid.

Option	Description
	Click **Details** to view the list of the **Used In** Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the data quality rule is used.

Data Quality Groups

1. From the **Catalog of Objects** tab, **Data Foundation**, and then click **Data Quality Groups** to view a list of objects.
2. Click the required data quality groups.

   The data quality group specific details are explained in the following table:

Option	Description
Specific Properties	Displays the specific properties of the data quality group definition such as Check Type, On Source, Table, Column, Substring, Position, Length, and Filter. **Note:** This field applies only to OFS Regulatory Reporting Applications.
Depends on	The only dependent Object Type for Data Quality Groups is Data Quality Rule. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The data quality group object cannot be used in any higher objects.
Applications	Displays the applications in which the data quality group is used.

Business Metadata

The Business Metadata is classified into the following types:

1. Base Metadata
2. Derived Metadata

Base Metadata

The Base Metadata consists of the following metadata:

1. Datasets
2. Alias
3. Hierarchies
4. Measures
5. Variables
6. Techniques
7. Stress Definitions
8. Entities

9. Filters
10. Expressions
11. Profiles

Datasets

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Datasets** to view a list of objects.
2. Click the required dataset.

   The Dataset specific details are explained in the following table:

Option	Description
Dataset Properties	Displays the **Join** condition, **Filter** condition, **Data filter**, and **Order By** that are used to create the dataset.
Depends on	The dependent Object Types for Dataset are Entities and Aliases. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The Object Types in which a Dataset is used are Rule, Process, Business Processor, Cube, and Derived Entity. Click **Details** to view the list of the **Used In Objects**. For more information, see the Dependency window.
Applications	Displays the applications in which the Dataset is used.

Alias

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Alias** to view a list of objects.

   (Optional) <Enter a step example.>
2. Click the required alias table name.

   The alias table details are explained in the following table:

Option	Description
Depends on	The only dependent object type of an Alias is Entity. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The object types in which an Alias is used are Dataset, Measure, Business Processor, and Hierarchy. Click **Details** to view the list of the **Used In** Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the alias is used.

Hierarchies

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Hierarchies** to view a list of objects.
2. Click the required Hierarchy to view its metadata.

   The Hierarchy specific details are explained in the following table:

Option	Description
Hierarchy Properties	Displays the Hierarchy Type, Multi-dimensional Property (Regular or Time), and Total Required.
Depends on	The dependent object types for Hierarchy are Entity, Column, and Alias. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The object types in which a Hierarchy is used are Dimension, Rule, and Derived Entity. Click **Details** to view the list of the **Used In** Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the hierarchy is used.

Measures

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Measures** to view a list of objects.
2. Click the required Measure to view its metadata.

   The Measure specific details are explained in the following table:

Option	Description
Measure Properties	Displays the Aggregation Function, Measure Data type, Business Exclusions, Filter, and Rollup Type.
Depends on	The dependent object types for Business Measure are Entity, Alias, and Attributes. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	The object types in which a Measure is used are Cube, Hierarchy, Rule, and Business Processor. Click **Details** to view the list of the **Used In** objects. For more information, see the Dependency window.
Applications	Displays the applications in which the Business Measure is used.

Variables

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Variables** to view a list of objects.

2. Click the required variable to view its metadata.

   The Variable specific details are explained in the following table:

Option	Description
Variable Properties	Displays the Type, Structure, Classification, Based on, and Variable property.
Depends on	The dependent object types for Variable are Entity, Business Measure, Business Processor, and Hierarchy. In the case of the Term Structure Variable, the dependent object will be Single Value Variables. Click **Details** to view the list of the **Depends On** Objects. For more information, see the Dependency window.
Used In	Displays the number of Objects and Object Types in which the variable is used. A variable can be used in a Variable Shock or Model. In the case of a Single Value Variable, the Used In object can be Term Structure Variable. Click **Details** to view the list of the **Used In** Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the variable is used.

Techniques

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Techniques** to view a list of objects.
2. Click the required technique to view its metadata.

   The Technique specific details are explained in the following table:

Option	Description
Technique Properties	Displays the Technique Class, and Based On (for Script-based techniques and External Library based techniques). Additional properties like Provider Name and External Library Name are displayed for External Library based techniques.
Technique Inputs	This is displayed only for techniques based on Script. Displays the name and the type of Input Parameters used in the technique. The parameter types are Variable and Single Value Parameter.
Algorithm Details	This is displayed only for techniques based on External Library. Displays the Function Name, Return Type, and Function Definition.
Technique Outputs	Displays the name of the configured outputs.
Technique Properties	Displays the R script of the technique.
Depends on	NA.

Option	Description
Used In	A Technique is used only in the Model. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the technique is used.

Stress Definitions

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Stress Definitions** to view a list of objects.
2. Click the required Stress Definition to view its metadata.

   The Stress Definition specific details are explained in the following table:

Option	Description
Stress Definition Properties	Displays the Segment in which the Stress Definition is defined.
Depends on	The only dependent object type of Stress Definition is Run. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	A Stress Definition is used only in the Model. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the stress definition is used.

Entities

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Entities** to view a list of objects.
2. Click the required Entity to view its metadata.

Filters

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Filters** to view a list of objects.
2. Click the required filter object to view its metadata. The following are the types of filters:
   - Data Element Filter
   - Hierarchy Filter
   - Group Filter
   - Attribute Filter

   The Filter specific details are explained in the following table:

Option	Description
Filter Properties	Displays the Access Code, Filter Type, and SQL query of the selected filter.

Option	Description
Depends on	Displays the object and its type which are used in creating the filter. • For the Data Element filter, the dependent objects are Columns and Expressions. • For the Hierarchy filter, the dependent object is Hierarchy. • For the Group filter, the dependent object is the Data Element filter. • For the Attribute filter, the dependent object is Dimension. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window
Used In	The object types in which a Filter is used depends on the Filter type. • For the Data Element filter, the object type is Group Filter. • For the Hierarchy filter, the object type is Rule. The Group filter and Attribute filter are used in applications. Click Details to view the list of the Used In Objects. For more information, see the Dependency window
Applications	Displays the applications in which the filter is used.

Expressions

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Expressions** to view a list of objects.
2. Click the required Expressions to view its metadata.

Profiles

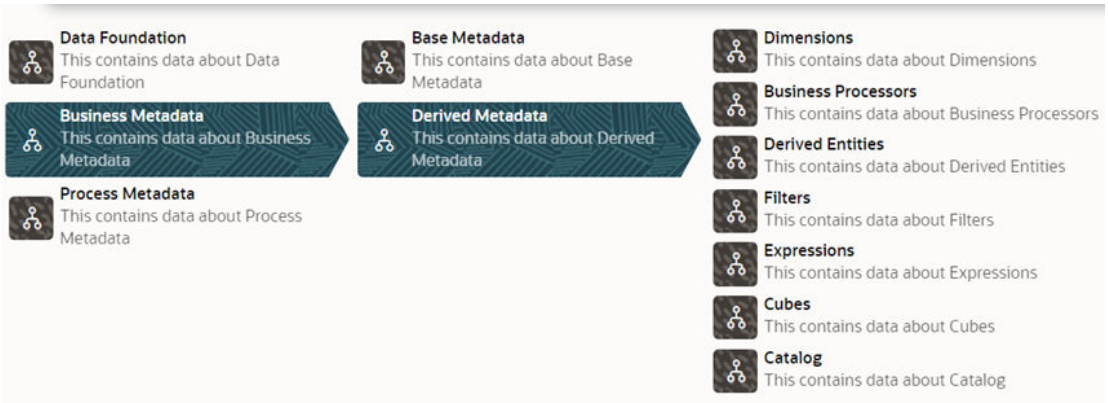
1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Base Metadata**, and then click **Profiles** to view a list of objects.
2. Click the required Profile to view its metadata.

Derived Metadata

The Derived Metadata consists of the following metadata:

1. Dimensions
2. Business Processors
3. Derived Entities
4. Filters
5. Expressions
6. Cubes
7. Catalog

Figure 3-25 The Business Derived Metadata List



Dimensions

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Dimensions** to view a list of objects.
2. Click the required dimension to view its metadata

   The Dimension specific details are explained in the following table:

Option	Description
Business Processor Properties	Displays the Source Expression and the status of whether the Expression has an Aggregate Function.
Placeholders	Displays the parameter names and their values for the selected business processor object. This field is displayed only if the parameters are defined for the BP.
Depends on	The dependent object types for Business Processor are Dataset and Measure. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Business Processor can be used is a Rule. Click Details to view the list of the Used In Objects. Click the object link to drill down for more details. For more information, see the Dependency window.
Applications	Displays the applications in which the business processor is used.

Business Processors

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Business Processors** to view a list of objects.
2. Click the required Business Processor to view its metadata.

   The Business Processor specific details are explained in the following table:

Option	Description
Business Processor Properties	Displays the Source Expression and the status of whether the Expression has an Aggregate Function.
Placeholders	Displays the parameter names and their values for the selected business processor object. This field is displayed only if the parameters are defined for the BP. Note: This field does not apply to OFS Regulatory Reporting Applications.
Depends on	The dependent object types for Business Processor are Dataset and Measure. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Business Processor can be used is a Rule. Click Details to view the list of the Used In Objects. Click the object link to drill down for more details. For more information, see the Dependency window.
Applications	Displays the applications in which the business processor is used.

Derived Entities

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Derived Entities** to view a list of objects.
2. Click the required Derived Entity to view its metadata.

   The Derived Entity specific details are explained in the following table:

Option	Description
Derived Entity Properties	Displays Aggregate Flag, Materialized View, Application Name, and Source Name.
Depends on	The dependent object types for Derived Entity are Entity, Dataset, Hierarchy, Business Processor, and Measure. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Derived Entity is used are Dataset and Hierarchy. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the derived entity is used.

Filters

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Filters** to view a list of objects.

2. Click the required filter object to view its metadata. The following are the types of filters:
   - Data Element Filter
   - Hierarchy Filter
   - Group Filter
   - Attribute Filter

   The Filter specific details are explained in the following table:

Option	Description
Filter Properties	Displays the Access Code, Filter Type, and SQL query of the selected filter.
Depends on	Displays the object and its type which are used in creating the filter. • For the Data Element filter, the dependent objects are Columns and Expressions. • For the Hierarchy filter, the dependent object is Hierarchy. • For the Group filter, the dependent object is the Data Element filter. • For the Attribute filter, the dependent object is Dimension. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Filter is used depends on the Filter type. • For the Data Element filter, the object type is Group Filter. • For the Hierarchy filter, the object type is Rule. The Group filter and Attribute filter are used in applications. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the filter is used.

Expressions

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Expressions** to view a list of objects.
2. Click the required Expressions to view its metadata.

Cubes

1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Cubes** to view a list of objects.
2. Click the required Cubes to view its metadata.

Catalog

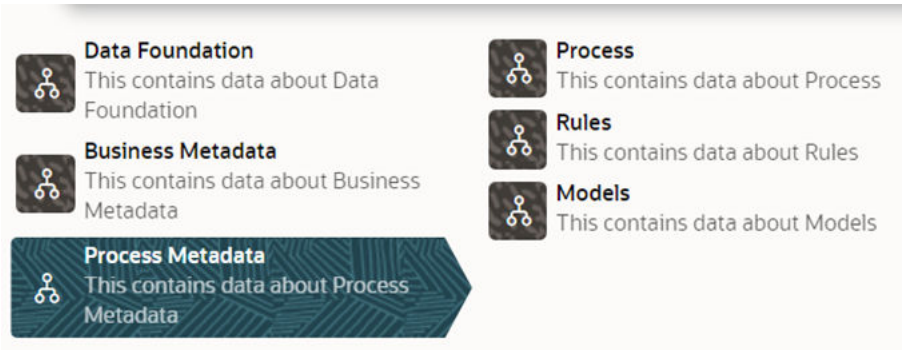
1. From the **Catalog of Objects** tab, click **Business Metadata**, click **Derived Metadata**, and then click **Catalog** to view a list of objects.
2. Click the required Catalog to view its metadata.

Process Metadata

The Process Metadata is classified into the following:

1. Process
2. Rules
   a. Classification Rules
   b. Computation Rules
3. Models
4. PMF Pipeline
5. PMF Task

Figure 3-26 The Process Metadata List



Process

1. From the **Catalog of Objects** tab, click **Process Metadata**, and then click **Process** to view a list of objects.
2. Click the required Process to view its metadata.

   The Process specific details are explained in the following table:

Option	Description
Process Specific Property	Displays the Effective Start Date, Effective End Date, and Last Operation Type.
Process Tree	Displays the sub processes and rules present in the process in a tree structure. Expand a subprocess to view the rules present in it. The rule can be Computation Rule, Data Transformation, or Model. Click More to display the Process Tree in a separate window.
Depends on	The dependent object types for Process are Data Extraction, File Load, Table Load, Data Quality Check, Data Transformation, RRF Rule, RRF Process, Aggregate Data,

Option	Description
	Essbase Cube, Pooling, Optimizer, Model, and Variable Shock. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Process is used can be another Process or Run. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the process is used.

Rules

A rule can be a classification rule or computation rule.

1. From the **Catalog of Objects** tab, click **Process Metadata**, click **Rules**, and then click **Classification Rules** or **Computation Rules** to view a list of objects.
2. Click the required Rules to view its metadata.

   The Rule specific details are explained in the following table:

Option	Description
Rule Specific Properties	Displays Pre Build Flag, Use ROWID, Merge Hint, Effective Start Date, Effective End Date, and Last Operation Type.
Mapping	Displays the mapping details of the rule. Click More to display the mappings in a separate window. • Click the **Tree View** icon to view the mappings in the tree view format to a grid view (tabular) format. • Click the **Export to MS Excel** icon to export the mappings to an Excel file.
Depends on	The dependent object types for Rule are Dataset, Hierarchy, Measure, Business Processor, Data Filter, Group Filter, Hierarchy Filter, and Attribute Filter. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Rule is used are Process and Run. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the rule is used.

Models

1. From the **Catalog of Objects** tab, click **Process Metadata**, and then click **Models** to view a list of objects.
2. Click the required Model to view its metadata.

The Model specific details are explained in the following table:

Option	Description
Model Properties	Displays the model properties such as Technique, Model Objective, Language, Type, and Input Data Type. Note: Technique will not be displayed for models based on R script.
Language	Displays the script of the model for R based models (script-based or R technique based).
Model Inputs	Displays the configured script variables and the selected variables.
Output Structures	Displays the Output Structure of the R based models (script-based or R technique based).
Input/ Output Parameters	This grid is displayed only for NAG technique based models. Displays the input and output parameters defined for the NAG technique based models.
Model Parameters	This grid is displayed only for models based on External Library techniques. Displays the Configured Script Parameters and the Parameter values.
Script	Displays the script of the model for R based models (script-based or R technique based).
Depends on	The dependent object types for the Model are Variable, Dataset, and Technique. Note: Technique will be displayed only for models based on R techniques or External Library based techniques. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Model is used are Run, Process, or Stress Definition. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the model is used.

<Enter Task Title Here>

(Required) <Enter a short description here.>

(Optional) <Describe the context.>

(Optional) <Describe the prerequisites.>

1. (Required) <Enter the first step.>

   (Optional) <Enter a step example.>

2. <Enter the next step.>

(Optional) <Enter additional information about the step.>

3. <Enter the next step.>
   - (Optional) <Enter one of the user's choices while performing this step.>
   - (Optional) <Enter another of the user's choices while performing this step.>
4. <Enter the next step.>
   a. (Optional) <Enter a substep.>
   b. (Optional) <Enter a substep.>

PMF Task

1. From the **Catalog of Objects** tab, click **Process Metadata**, and then click **PMF Task** to view a list of objects.
2. Click the required PMF Task to view its metadata.

   The PMF Task-specific details are explained in the following table:

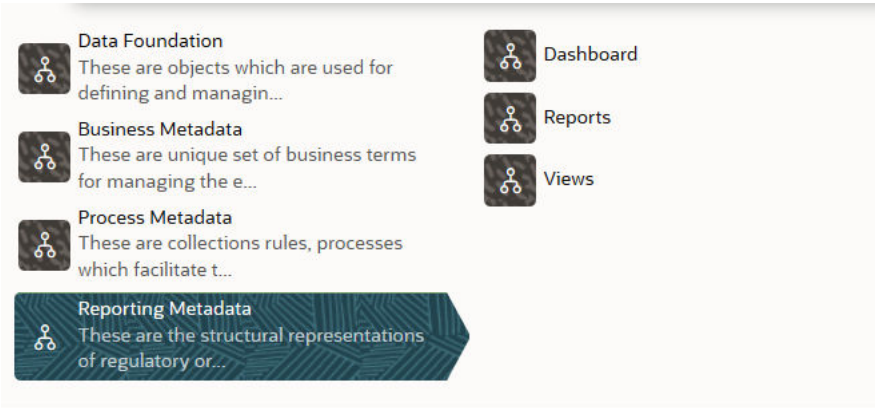
Option	Description
Depends on	The dependent object types on the PMF Tasks. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a PMF Task is used by another Process or Run. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the PMF Task is used.

Reporting Metadata

The Reporting Metadata is classified into the following:

1. Dashboard
2. Reports
3. Views

Figure 3-27 The Report Metadata List



Dashboard

The Dashboard is a list of objects in Reporting Metadata.

1. From the **Catalog of Objects** tab, click **Report Metadata**, and then click **Dashboard** to view a list of objects.
2. Click the required **Dashboard** to view its metadata.

   The **Dashboard** specific details are explained in the following table:

Option	Description
Dashboard Properties	Displays the Regulator, Frequency, and Dashboard Type.
Filters	Displays the Object Type and Object Name
Depends on	The dependent object types for Dashboard is Report. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	Displays the Object Type and Object name in which the Dashboard is used. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the dashboard is used.

Reports

The **Reports** is a list of objects in **Reporting Metadata** and it is dependent on the **Dashboard**.

1. From the **Catalog of Objects** tab, click **Report Metadata**, click **Reports** to view a list of objects.
2. 2. Click the required reports to view its metadata.

   The Reports specific details are explained in the following table:

Option	Description
Depends on	The dependent object types for Report is Dashboard. Click Details to view the list of the Depends On Objects. For more information, see the Dependency window.
Used In	The object types in which a Report is used is the dashboard. Click Details to view the list of the Used In Objects. For more information, see the Dependency window.
Applications	Displays the applications in which the report is used.

Views

The **Views** is a list of objects in **Reporting Metadata.**

1. From the **Catalog of Objects** tab, click **Report Metadata**, click **Views** to view a list of objects.
2. Click the required **Views** to view its metadata.

4
Applications

Data related details for the run or process pipeline for applications installed in OFSAA is displayed.

For more information about run or process pipeline, see the Process Modeling Framework Orchestration Guide.

5
Utilities

OFSAA has a list of utilities that support Metadata Browser functions.

Topics:

Command Line Utility to Publish Metadata in the Metadata Browser

A command line utility `MDBPublishExecution.sh` is available to publish Metadata in the Metadata Browser.
Following are the pre-requisites before executing this utility:

1. If the FICSERVER is configured to cache the metadata at the start-up of the server, you need to wait till the caching of metadata is completed to invoke this utility.
2. Ensure that `JAVA_HOME` is pointing to the JAVA bin installation directory.
3. Ensure that the following jar file is present in the `$FIC_DB_HOM/lib` directory.

   `aai-wsclient-mdbpublish.jar,aai-wsmdbpublishservice.jar`
4. Ensure that `MDBPublishExecution.properties` file is present in `$FIC_DB_HOME/conf` folder.

   You can also manually update the properties file in the path

   `$FIC_DB_HOME/conf/MDBPublishExecution.properties` to point to the required ServiceURL.

   `MDBPUBLISH_EXECUTION_WSDL_LOCATION = URL of WebService` (For example, `http://<<IP ADDRESS>>/OFSAAI/mdbPublishExecution?wsdl`)
5. Metadata should be present.

To execute Metadata Browser publish utility:

1. Navigate to `$FIC_DB_HOME/bin` of OFSAAI FIC DB tier.
2. Execute `MDBPublishExecution.sh` (UNIX)

   For example, `./MDBPublishExecution.sh`
3. While executing, provide any of the following parameters as required:
   - ALL - To publish metadata to all the available information domains.
   - INFODM1 - To publish metadata to only one (specified) information domain.
   - INFODOM1~INFODOM2~INFODOM3 - To publish metadata to multiple (specified) information domains separated by tilde “~”.

   If no parameter is specified, by default “ALL” option is considered.

4. You can access the location `$FIC_DB_HOME\log\MDBPublishExecution.log` to view the related log files.
5. The publish execution specific log information is present in the `MDBPublish.log` file available at the `<DEPLOYED LOCATION>/<Context>.ear/<Context>.war/logs` folder.

To run the utility through the Operations module:

1. Navigate to the Operations module and define a batch.
2. Add a task by selecting the component as RUN EXECUTABLE.
3. Enter Metadata Value as mentioned in the example.
   For Example:

   Component ID: RUN EXECUTABLE

   Metadata Value (Executable) like:

```
 MDBPublishExecution.sh,LANG611INFO
(where LANG611INFO is the Infodom)
 Batch = Y
```

Command Line Utility for Object Application Mapping in the Metadata Browser

The following command line utility is introduced to perform Object Application mapping. Following are the pre-requisites before executing this utility:

1. Ensure that JAVA_HOME is pointing to the JAVA bin installation directory.
2. Ensure that the following jar file is present in the `$FIC_DB_HOM/lib` directory.

   `aai-wsclient-mdbpublish.jar, aai-wsmdbpublishservice.jar`
3. 3. Ensure that `ObjAppMap.properties` file is present in `$FIC_DB_HOME/conf` folder.

   You can also manually update the properties file in the path `$FIC_DB_HOME/conf/ObjAppMap.properties` to point to the required ServiceURL.

   `MAP_WSDL_LOCATION= URL of WebService (For example, https://<<IP ADDRESS>>/OFSAAI/ mdbObjAppMap?wsdl)`

To execute the Metadata Object Application Mapping utility:

1. Navigate to `$FIC_DB_HOME/bin` of OFSAAI FIC DB tier.
2. Execute `MDBObjAppMap.sh` (UNIX)

   For example, `./MDBObjAppMap.sh`
3. While executing, provide any of the following parameters as required:
   - ALL - To do object application mapping in all the available information domains.
   - INFODM1 - To do object application mapping in only one (specified) information domain.
   - INFODOM1~INFODOM2~INFODOM3 - To do object application mapping in multiple (specified) information domains separated by tilde “~”.

If no parameter is specified, by default “ALL” option is considered.

You can access the location `$FIC_DB_HOME\log\MDBObjAppMap.log` to view the related log files.

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